



# Somaliland Multiple Indicator Cluster Survey 2011

## Final Report

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The Somaliland Multiple Indicator Cluster Survey (MICS) was carried out in 2011 by Somaliland Ministry of Planning and National Development. Financial and technical support was provided by the United Nations Children's Fund (UNICEF).

MICS is an international household survey programme developed by UNICEF. The Somaliland MICS was conducted as part of the fourth global round of MICS surveys (MICS4). It provides up-to-date information on the situation of children and women and measures key indicators that allow countries to monitor progress towards the Millennium Development Goals (MDGs) and other internationally agreed upon commitments.

Additional information on the global MICS project may be obtained from [www.childinfo.org](http://www.childinfo.org).

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## Summary Table of Findings

Multiple Indicator Cluster Surveys (MICS) and Millennium Development Goals (MDG) Indicators, Somaliland, 2011

Topic	MICS4 Indicator Number	MDG Indicator Number	Indicator	Value
<b>CHILD MORTALITY</b>				
Child mortality	1.1	4.1	Under-five mortality rate	91 per 1,000
	1.2	4.2	Infant mortality rate	72 per 1,000
	1.3		Neonatal mortality rate	42 per 1,000
	1.4		Post-neonatal mortality rate	30 per 1,000
	1.5		Child mortality rate	20 per 1,000
Breastfeeding and infant feeding	2.4		Children ever breastfed	91.3 percent
	2.5		Early initiation of breastfeeding	60.9 percent
	2.6		Exclusive breastfeeding under 6 months	12.8 percent
	2.7		Continued breastfeeding at 1 year	46.3 percent
	2.8		Continued breastfeeding at 2 years	19.2 percent
	2.9		Predominant breastfeeding under 6 months	32.7 percent
	2.10		Duration of breastfeeding	14.7 months
	2.11		Bottle feeding	50.8 percent
	2.12		Introduction of solid, semi-solid or soft foods	32.5 percent
	2.13		Minimum meal frequency	53.5 percent
	2.14		Age-appropriate breastfeeding	20.6 percent
	2.15		Milk feeding frequency for non-breastfed children	89.3 percent
Vitamin A	2.17		Vitamin A supplementation (children under age 5)	39.9 percent
<b>CHILD HEALTH</b>				
Vaccinations	3.1		BCG immunization coverage	26.8 percent
	3.2		Polio immunization coverage	16.5 percent
	3.3		Immunization coverage for diphtheria, pertussis and tetanus (DPT)	10.8 percent
	3.4	4.3	Measles immunization coverage	25.8 percent
Tetanus toxoid	3.7		Neonatal tetanus protection	33.9 percent
Care of illness	3.8		Oral rehydration therapy with continued feeding	20.1 percent
	3.9		Care seeking for suspected pneumonia	31.0 percent
	3.10		Antibiotic treatment of suspected pneumonia	52.8 percent
Solid fuel use	3.11		Solid fuels	98.3 percent
Malaria	3.12		Household availability of insecticide-treated nets (ITNs)	35.1 percent
	3.13		Households protected by a vector control method	36.6 percent
	3.14		Children under age 5 sleeping under any mosquito net	24.0 percent
	3.15	6.7	Children under age 5 sleeping under insecticide-treated nets (ITNs)	21.9 percent
	3.16		Malaria diagnostics usage	16.0 Percent
	3.17		Antimalarial treatment of children under 5 the same or next day	3.4 percent
	3.18	6.8	Antimalarial treatment of children under age 5	9.8 percent
	3.19		Pregnant women sleeping under insecticide-treated nets (ITNs)	20.1 percent
	3.20		Intermittent preventive treatment for malaria	1.4 percent

Topic	MICS4 Indicator Number	MDG Indicator Number	Indicator	Value	Topic
<b>WATER AND SANITATION</b>					
Water and sanitation	4.1 4.2 4.3 4.4 4.5 4.6	7.8 7.9	Use of improved drinking water sources Water treatment Use of improved sanitation Safe disposal of child's faeces Place for handwashing Availability of soap	41.9 12.6 51.1 50.5 76.8 69.7	percent percent percent percent percent percent
<b>REPRODUCTIVE HEALTH</b>					
Contraception and unmet need	5.1 5.2 5.3 5.4	5.4 5.3 5.6	Adolescent birth rate Early childbearing Contraceptive prevalence rate Unmet need	64 13.6 9.8 20.2	per 1,000 percent Percent Percent
Maternal and newborn health	5.5a 5.5b 5.6 5.7 5.8 5.9	5.5	Antenatal care coverage At least once by skilled personnel At least four times by any provider Content of antenatal care Skilled attendant at delivery Institutional deliveries Caesarean section	31.7 14.8 23.2 44.1 30.6 4.0	percent percent percent percent percent percent
<b>CHILD DEVELOPMENT</b>					
Child development	6.1 6.2 6.3 6.4 6.5 6.6 6.7		Support for learning Father's support for learning Learning materials: children's books Learning materials: playthings Inadequate care Early child development index Attendance to early childhood education	65.2 30.9 1.3 6.8 27.3 58.5 2.8	percent percent percent percent percent percent percent
<b>EDUCATION</b>					
Literacy and education	7.1 7.2 7.3 7.4 7.5 7.6 7.7 7.8 7.9 7.10	2.3 2.1 2.2	Literacy rate among young people women age 15-24 years School readiness Net intake rate in primary education Primary school net attendance ratio (adjusted) Secondary school net attendance ratio (adjusted) Children reaching last grade of primary Primary completion rate Transition rate to secondary school Gender parity index (primary school) Gender parity index (secondary school)	44.1 6.5 20.6 51.4 20.5 88.7 68.5 76.3 0.85 0.67	percent percent percent percent percent percent percent percent ratio ratio
<b>CHILD PROTECTION</b>					
Child labour	8.2 8.3 8.4		Child labour School attendance among child labourers Child labour among students	26.0 41.9 24.8	percent percent percent
Child discipline Early marriage and polygyny	8.5 8.6 8.7 8.8 8.9 8.10a 8.10b		Violent discipline Marriage before age 15 women age 15-49 years Marriage before age 18 women age 20-49 years Young women age 15-19 years currently married Polygyny women age 15-49 years Spousal age difference women age 15-19 years women age 20-24 years	78.2 8.7 30.8 8.9 16.8 32.7 29.3	percent percent percent percent percent percent percent



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## List of Abbreviations

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ABE	Alternative Basic Education
AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
ANPPCAN	African Network for the Prevention and Protection against Child Abuse and Neglect
ASFR	Age Specific Fertility Rate
BCG	Bacillus-Cereus-Geuerin (Tuberculosis)
CSPro	Census and Survey Processing System
DPT	Diphtheria Pertussis Tetanus
EPI	Expanded Programme on Immunization
FAO	Food Agricultural Organization
FGM/C	Female genital mutilation/cutting
GPI	Gender Parity Index
GPS	Geographic Information Systems
HIV	Human Immunodeficiency Virus
IDD	Iodine Deficiency Disorders
ITN	Insecticide Treated Net
IUD	Intrauterine Device
JMP	Joint Monitoring Programme
LAM	Lactational Amenorrhea Method
LPG	Liquefied Petroleum Gas
MDG	Millennium Development Goals
MICS	Multiple Indicator Cluster Survey
MICS4	Fourth global round of Multiple Indicator Clusters Surveys programme
MoH	Ministry of Health
MoNPD	Ministry of National Planning and Development
NAR	Net Attendance Rate
NDP	National Development Plan
NN	Neonatal
ORT	Oral rehydration treatment
PPM	Parts Per Million
PPN	Post Neonatal
SPSS	Statistical Package for Social Sciences
TFT	Total Fertility Rate
UNAIDS	United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNGASS	United Nations General Assembly Special Session on HIV/AIDS
UNICEF	United Nations Children's Fund
USSC	UNICEF Somalia Support Centre
WFFC	World Fit for Children
WHO	World Health Organization

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The survey was coordinated by Sicily Matu, Peter Kingori, and Asha Hussein Adam from UNICEF and Hassan Jama (MoNPD). The data processing manager was Austin Mueke. Managerial and administrative support to the survey was provided by the following UNICEF staff: Debra Bowers, Volker Huls, Emily Mwadime, Catherine Kiraka, Ettie Higgins and Ahmed Hassan Yusuf (ANPPCAN). Penina Masibo (UNICEF) contributed to the final report writing.

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Funding for MICS4 in Somaliland was provided by UNICEF.

## **Disclaimer**

For the purposes of this survey, the analysis and reporting refers to North West Zone (also known as Somaliland) according to the pre-war zonal boundaries and does not imply any recognition of administrative boundaries by the United Nations. This will allow some comparison of the results with the previous MICS surveys.

## Executive Summary

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The Somaliland Multiple Indicator Survey is a representative sample survey of 4,924 households, out of which 4,820 were successfully interviewed, 5,865 women age 15 – 49 and 4,672 children age less than five years. The primary purpose of MICS is to provide policy makers and planners with reliable and detailed information needed to monitor the situation of women and children. It also provides information on child mortality, nutrition, child health, water and sanitation, reproductive health, child development, literacy and education, child protection, HIV/AIDS and orphan hood and access to mass media and use of information/communication technology.

### Child mortality

- At the current mortality levels, one in every fourteen children die before age one and one in every eleven does not survive to the fifth birthday in Somaliland.
- Mortality levels among children from the poorest households are nearly twice that of children from the richest households.
- Mortality is highest among children with a previous birth interval of less than two years.

### Nutrition

- Three in every five children are breastfed within one hour of being born.
- Exclusive breastfeeding levels are very low, contrary to UNICEF/WHO recommendations, only 13 percent of children age 0 – 6 months are exclusively breastfed.
- Among children age 12 – 15 months nearly half are still breastfeeding which falls to 19 percent among children age 20 – 23 months.
- Complimentary feeding in Somaliland is sub optimal. Only a third of the children 6 – 8 months receive appropriate complimentary feeding.

### Immunization

- Immunisation coverage is low and only 7 percent of children age 12 – 23 months are fully vaccinated at the time of the survey.
- Two percent of children received their vaccination by their first birthday.
- Thirty six percent of children age 12 – 23 months has received BCG vaccination while 38 percent have been vaccinated against measles.
- About 11 percent of children aged 12 – 23 months had received their third dose of DPT by their first birthday.
- Forty three percent of children aged 12 – 23 months have not received any of the basic vaccines
- One in three women aged 15 – 49 years with a live birth in the last two years are protected against neonatal tetanus.

### Diarrhoea

- Thirteen percent of the children under five years of age had diarrhoea at some point in the two weeks before the survey.
- Around one in two children who had diarrhoea were treated with Oral Rehydration Solution (ORS).
- One in five children with diarrhoea received ORS with continued feeding.

#### Pneumonia

- Six percent of children under five years had suspect pneumonia in the two weeks before the survey.
- About one in three children under five with suspected pneumonia received treatment from an appropriate provider.
- More than half of children with suspected pneumonia received antibiotics.

#### Malaria

- Thirty nine percent of households own at least one mosquito net and one third own Insecticide Treated Net (ITN).
- A quarter of the children under age of five years slept under a bed net during the night prior to the interview; with 22 percent of children sleeping under ITN.
- Twenty percent of pregnant women slept under an ITN during the night prior to the interview.
- Eight percent of children under age five had a fever at one point in the last two weeks before the survey; one in ten received any antimalarial drug and only 3 percent received an antimalarial drug on the same or next day.

#### Water and sanitation

- Forty two percent of the population in Somaliland has access to an improved source of drinking water.
- One in eight people living in households using unimproved drinking water sources use an appropriate water treatment method.
- In three in every five households, an adult woman bears the responsibility of collecting water.
- About one third of the population is living without any type of toilet facilities.
- Half of the population are using facilities with a sanitary means of excreta disposal; and for half of the children age 0 – 2 years had their last stool disposed of safely.
- Twenty nine percent of the population is using an improved source of drinking water and a sanitary means of excreta disposal and it is ten times high in urban compared to rural areas.
- Water and soap for hand washing is available in three out of four households with a place for hand washing; and 70 percent of the households had soap anywhere in the dwelling.

#### Reproductive health

- The total fertility rate is 5.4 births per woman.
- Only one in ten married women are using any method of contraception; the most common non modern method is Lactational Amenorrhea Method (LAM) and the pill is the most common modern method though its use is very low.
- The unmet need for contraception is 20 percent.
- Thirty two percent of mothers with a live birth in the two years preceding the survey received ante natal care from a skilled provider (Doctor, Nurse or trained midwife).
- Among women who received Ante-Natal Care (ANC), 39 percent had blood pressure taken, 28 percent had urine sample taken while another 28 percent had a blood test done.
- One in seven women had four or more ANC visits but about one in every two did not receive ANC.
- Forty four percent of births in the two years prior to the survey were delivered with the assistance of a skilled attendance.
- Thirty one percent of the births were delivered in a health facility.

### Child development

- Only three percent of children ages 3 – 4 years are attending early childhood classes.
- Nearly two thirds of children 3 – 4 years were engaged by adult household members in four or more playing activities.
- Irrespective of the sex of the child, 27 percent of children under five years of age had been left with inadequate care a week before the survey.

### Literacy and Education

- At least 44 percent of the women 15 – 24 years are literate; among this group, literacy is almost twice in urban compared to rural areas and four times higher among the women in the richest quintile compared to those in the poorest quintile.
- Only 7 percent of children attending first grade attended pre-school the previous year.
- Only about one in five children of primary school entry age enter grade one and this is twice among children in the richest quintile compared to those in poorest quintile.
- One in every two of the primary school age children are in primary school and this declines even further one in five of secondary school age children attending secondary school.
- For every 10 boys attending primary school there are 9 girls. This declines further in secondary school education with 7 girls attending for every 10 boys.
- Non formal education especially Koranic school is common with over half of school age children currently attending Koranic school and about one in every three attending integrated koranic school.

### Child protection

- About one in every four children is involved in child labour; and this is more common for girls than boys.
- A quarter of children who are in school are involved in child labour.
- Violent methods of disciplining children are common with three in every four children experiencing a violent method of discipline especially psychological aggression.
- Almost all women aged 15 – 49 years have undergone one form of FGM/C; the most common type is where they are sewn closed.
- One in every five daughters aged 0 – 14 years have undergone FGM/C.
- Nearly a third of women aged 15 – 49 years support continuation of FGM/C.
- More than half of women believe that a husband is justified in beating his wife/partner, with neglecting the children stated as the most common reason for support.

### HIV/AIDS

- Only 6 percent of women age 15 – 49 years has comprehensive knowledge on HIV transmission and about one in every four reject the two common misconceptions about HIV.
- Among women, 15 – 24 years, only 7 percent have comprehensive knowledge of HIV transmission.
- About half of women can correctly identify the three means of HIV transmission from mother-to-child.

- Only 28 percent of women know of a place they can be tested for HIV/AIDS and only 3 percent have been tested and know their result.
- Only 8 percent of women express accepting attitude towards people living with HIV/AIDS.

#### Access to mass media and information /communication technology

- About 7 percent of women aged 15 – 49 years have access to all three media (Newspaper, radio and television) at least once a week.
- Only 13 percent of women aged 15 – 24 years have used a computer in the last 12 months; and 14 percent have used internet during the same period.

## I. Introduction

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### Background

This report is based on the Somaliland Multiple Indicator Cluster Survey, conducted in 2011 by the Ministry of Planning and National Development and UNICEF. The survey provides valuable information on the situation of children and women in Somaliland and was based, in large part, on the needs to monitor progress towards goals and targets emanating from recent international agreements: the Millennium Declaration, adopted by all 191 United Nations Member States in September 2000, and the Plan of Action of A World Fit For Children, adopted by 189 Member States at the United Nations Special Session on Children in May 2002. Both of these commitments build upon promises made by the international community at the 1990 World Summit for Children.

In signing these international agreements, governments committed themselves to improving conditions for their children and to monitoring progress towards that end. UNICEF was assigned a supporting role in this task (see table below).

#### A Commitment to Action: National and International Reporting Responsibilities

The governments that signed the Millennium Declaration and the World Fit for Children Declaration and Plan of Action also committed themselves to monitoring progress towards the goals and objectives they contained:

“We will monitor regularly at the national level and, where appropriate, at the regional level and assess progress towards the goals and targets of the present Plan of Action at the national, regional and global levels. Accordingly, we will strengthen our national statistical capacity to collect, analyse and disaggregate data, including by sex, age and other relevant factors that may lead to disparities, and support a wide range of child-focused research. We will enhance international cooperation to support statistical capacity-building efforts and build community capacity for monitoring, assessment and planning.” (**A World Fit for Children**, paragraph 60)

“...We will conduct periodic reviews at the national and sub-national levels of progress in order to address obstacles more effectively and accelerate actions....” (**A World Fit for Children**, paragraph 61)

The Plan of Action (paragraph 61) also calls for the specific involvement of UNICEF in the preparation of periodic progress reports:

“... As the world’s lead agency for children, the United Nations Children’s Fund is requested to continue to prepare and disseminate, in close collaboration with Governments, relevant funds, programmes and the specialized agencies of the United Nations system, and all other relevant actors, as appropriate, information on the progress made in the implementation of the Declaration and the Plan of Action.”

Similarly, the **Millennium Declaration** (paragraph 31) calls for periodic reporting on progress:

“...We request the General Assembly to review on a regular basis the progress made in implementing the provisions of this Declaration, and ask the Secretary-General to issue periodic reports for consideration by the General Assembly and as a basis for further action.”

The Ministry of National Planning and Development has launched the National Development Plan (NDP)<sup>1</sup> which provides a medium term framework for achieving the long term development aspirations as embodied in Vision 2030<sup>2</sup>, and the Millennium Development Goals. The plan is built on five main pillars comprising the economic pillar, the infra-structure pillar, the governance pillar, the social and the environmental pillar. In the social pillar, the government aims to strengthen four key areas including social protection, health, education and youth development. The MICS4 results presented in this final report provide critical information and a baseline for assessing progress in the NDP indicators.

This final report presents the results of the indicators and topics covered in the survey.

## **Survey Objectives**

The 2011 Somaliland Multiple Indicator Cluster Survey has as its primary objectives:

- To provide up-to-date information for assessing the situation of children and women in Somaliland.
- To furnish data needed for monitoring progress toward goals established in the Millennium Declaration and other internationally agreed upon goals, as a basis for future action;
- To contribute to the improvement of data and monitoring systems in Somaliland and to strengthen technical expertise in the design, implementation, and analysis of such systems.
- To generate data on the situation of children and women, including the identification of vulnerable groups and of disparities, to inform policies and interventions.

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<sup>1</sup> Ministry of National Planning and Development, 2011. The National Development Plan (2012 – 2016), Hargeisa: Somaliland Ministry of Planning and National Development, Somaliland.

<sup>2</sup> Ministry of Planning and National Development, 2011. Somaliland National Vision 2030. Hargeisa: Somaliland Ministry of Planning and National Development, Somaliland.

## II. Sample and Survey Methodology

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### Sample Design

The sample for the Somaliland Multiple Indicator Cluster Survey (MICS) was designed to provide estimates for a large number of indicators on the situation of children and women at the regional level, for urban and rural areas, and for five regions: Maroodijeex/Saaxil, Awdal, Togdheer, Sool and Sanaag. The urban and rural areas within each region were identified as the main sampling strata and the sample was selected in two stages. Within each stratum, a specified number of enumeration areas were selected systematically with probability proportional to size. After a household listing was carried out within the selected enumeration areas, a systematic sample of 18 households was drawn in each sample enumeration area. Nineteen (19) of the selected enumeration areas were not visited because they were inaccessible due to population movement or civil conflict during the fieldwork period. For reporting national level results, sample weights are used. A more detailed description of the sample design can be found in Appendix A.

### Questionnaires

Three sets of questionnaires were used in the survey: 1) a household questionnaire which was used to collect information on all *de jure* household members (usual residents), the household, and the dwelling; 2) a women's questionnaire administered in each household to all women aged 15-49 years; and 3) an under-5 questionnaire, administered to mothers or caretakers for all children under 5 living in the household.

The Household Questionnaire included the following modules:

- Household Listing Form
- Education
- Non Formal Education (non-MICS country specific module)
- Water and Sanitation
- Household Characteristics
- Insecticide Treated Nets
- Indoor Residual Spraying
- Child Labour
- Child Discipline
- Handwashing

The Questionnaire for Individual Women was administered to all women aged 15-49 years living in the households, and included the following modules:

- Women's Background
- Access to Mass Media and Use of Information/Communication Technology
- Child Mortality with Birth History
- Desire for Last Birth

- Maternal and Newborn Health
- Illness Symptoms
- Contraception
- Unmet Need
- Female Genital Mutilation/Cutting
- Attitudes Towards Domestic Violence
- Marriage/Union
- HIV/AIDS

The Questionnaire for children under five was administered to mothers or caretakers of children under 5 years of age<sup>3</sup> living in the households. Normally, the questionnaire was administered to mothers of under-5 children; in cases when the mother was not listed in the household roster, a primary caretaker for the child was identified and interviewed. The questionnaire included the following modules:

- Age
- Early Childhood Development
- Breastfeeding
- Care of Illness
- Malaria
- Immunization

The questionnaires are based on the MICS4 model questionnaire<sup>4</sup>. From the MICS4 model English version, the questionnaires were translated into Somali and were pre-tested in Gabilely, Hargeisa during February 2011. Based on the results of the pre-test, modifications were made to the wording and translation of the questionnaires. A copy of the Somaliland MICS questionnaires is provided in Appendix F. In addition to the administration of questionnaires, fieldwork teams observed the place for handwashing.

The following modules were removed from the three sets of questionnaires each for the given reason. In the household questionnaire;

- Salt iodisation module was removed because there is more recent data from the Micronutrient Survey of 2009.

In the questionnaire for women 15- 49 years;

- Sexual behaviour module was not included as it was considered culturally sensitive in Somalia. Furthermore, it was not included in the 2006 MICS

In the questionnaire for children under five years;

- Birth registration was omitted based on observations in MICS3 that there are very few births registered in Somaliland as most women gave birth at home.
- The anthropometry module was excluded as there was more recent data in the micronutrient survey.

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<sup>3</sup> The terms “children under 5”, “children age 0-4 years”, and “children aged 0-59 months” are used interchangeably in this report.

<sup>4</sup> The model MICS4 questionnaires can be found at [www.childinfo.org](http://www.childinfo.org)

The following additions were made to the modules for specific questionnaires;

In the questionnaire for children under five years

- In the immunisation module, treatment of diarrhoea using ORS distributed in the most recent Child Health Days i.e. December 2010, was added
- In the same module, the type of card in which child immunisation was recorded included additional type of cards from the 2009 and 2010 child health days.

In the household questionnaire

- The Non Formal Education module was added. It was considered necessary in order to provide information given the continued intervention by the government, with support from partners, in Non Formal Education.

### **Training and Fieldwork**

Training for the fieldwork was conducted for 14 days in June 2011. Training included lectures on interviewing techniques and the contents of the questionnaires, and mock interviews between trainees to gain practice in asking questions. Towards the end of the training period, trainees spent two days in practice interviewing in Hargeisa town in an area not selected for actual data collection.

The data were collected by 10 teams; each comprised 6 interviewers, one sketch mapper, two field editors, a supervisor and a team leader. Fieldwork began on 16<sup>th</sup> June 2011 and concluded in 27<sup>th</sup> July 2011

### **Data Processing**

Data were entered using the CSPro software. The data were entered on 12 computers and carried out by 12 data entry operators under one data entry supervisor and one data manager. In order to ensure quality control, all questionnaires were double entered and internal consistency checks were performed. Procedures and standard programs developed under the global MICS4 programme and adapted to the Somaliland questionnaire were used throughout. Data processing began simultaneously with data collection in June 2011 and was completed in September 2011. Data for fifteen clusters had been collected in late May 2011 by the teams from Puntland. The consequence is that these clusters had to be entered (which was delayed until October) by the Puntland team before they were merged with the Somaliland data. Data were then analysed using the Statistical Package for Social Sciences (SPSS) software program, Version 18, and the model syntax and tabulation plans developed by UNICEF were used for this purpose.

### III. Sample Coverage and the Characteristics of Households and Respondents

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#### Sample Coverage

Of the 4,924 households selected for the sample, 4,900 were found to be occupied. Of these, 4,820 were successfully interviewed for a household response rate of 98.4 percent. In the interviewed households, 6,650 women (age 15-49 years) were identified. Of these, 5,865 were successfully interviewed, yielding a response rate of 88.2 percent within interviewed households. There were 4,772 children under age five listed in the household questionnaire. Questionnaires were completed for 4,672 of these children, which corresponds to a response rate of 97.9 percent within interviewed households. Overall response rates of 86.8 and 96.3 are calculated for the women's and under-5's interviews respectively (Table HH.1).

**Table HH.1: Results of household, women's and under-5 interviews**

Number of households, women and children under 5 by results of the household, women's and under-5's interviews, and household, women's and under-5's response rates, Somaliland, 2011

	Area		Region						Total
	Urban	Rural	Maroodijeex/Saaxil	Awdal	Togdheer	Sool	Sanaag		
<b>Households</b>									
Sampled	2,466	2,458	2,268	738	967	298	653	4,924	
Occupied	2,452	2,448	2,251	734	966	298	651	4,900	
Interviewed	2,401	2,419	2,205	724	948	296	647	4,820	
Household response rate	97.9	98.8	98.0	98.6	98.1	99.3	99.4	98.4	
<b>Women</b>									
Eligible	3,989	2,661	3,400	931	1,185	348	786	6,650	
Interviewed	3,541	2,324	2,951	835	1,058	319	702	5,865	
Women's response rate	88.8	87.3	86.8	89.7	89.3	91.7	89.3	88.2	
Women's overall response rate	86.9	86.3	85.0	88.5	87.6	91.1	88.8	86.8	
<b>Children under 5</b>									
Eligible	2,424	2,348	2,158	736	954	271	653	4,772	
Mothers/caretakers interviewed	2,373	2,299	2,099	725	944	266	638	4,672	
Under-5's response rate	97.9	97.9	97.3	98.5	99.0	98.2	97.7	97.9	
Under-5's overall response rate	95.9	96.8	95.3	97.2	97.1	97.5	97.1	96.3	

Response rates were similar between rural and urban areas and across the five regions. However women response rate were lower than the under-five response rate in both rural and urban areas and across the regions. The non-response among women was attributed to absence despite up to three callbacks. However all response rates were above 85%.

## Characteristics of Households

The weighted age and sex distribution of survey population is provided in Table HH.2. The distribution is also used to produce the population pyramid in Figure HH.1. In the 4820 households successfully interviewed in the survey, 30,619 household members were listed. Of these, 14,952 were males, and 15,667 were females. From these figures, the survey estimated the mean household size in Somaliland at 6.4 members per household (Table HH.3)

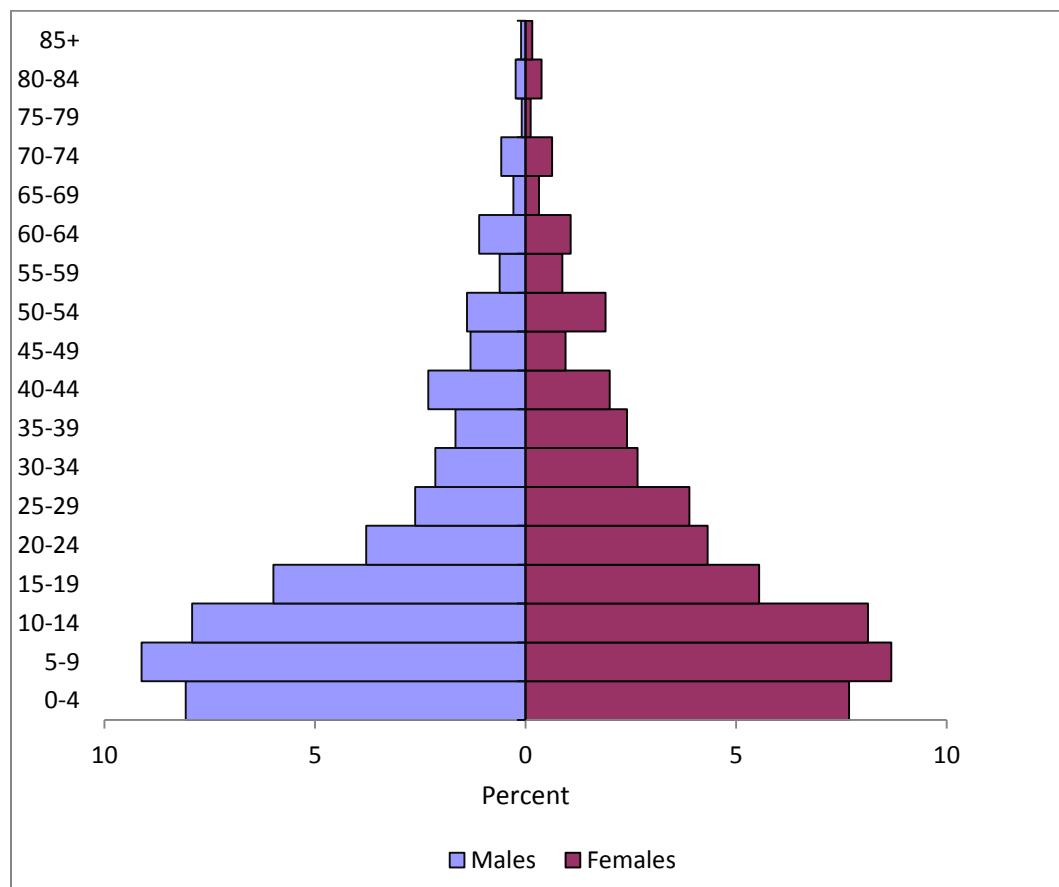
<b>Table HH.2: Household age distribution by sex</b>						
<b>Age</b>	<b>Males</b>		<b>Females</b>		<b>Total</b>	
	Number	Percent	Number	Percent	Number	Percent
0-4	2,441	16.3	2,324	14.8	4,765	15.6
5-9	2,759	18.5	2,628	16.8	5,387	17.6
10-14	2,395	16.0	2,460	15.7	4,855	15.9
15-19	1,812	12.1	1,678	10.7	3,491	11.4
20-24	1,145	7.7	1,309	8.4	2,454	8.0
25-29	793	5.3	1,177	7.5	1,970	6.4
30-34	649	4.3	805	5.1	1,454	4.7
35-39	503	3.4	728	4.6	1,232	4.0
40-44	700	4.7	606	3.9	1,306	4.3
45-49	396	2.6	289	1.8	684	2.2
50-54	420	2.8	576	3.7	996	3.3
55-59	186	1.2	265	1.7	452	1.5
60-64	333	2.2	325	2.1	658	2.1
65-69	88	0.6	96	0.6	183	0.6
70-74	174	1.2	192	1.2	366	1.2
75-79	28	0.2	37	0.2	65	0.2
80-84	71	0.5	116	0.7	187	0.6
85+	31	0.2	49	0.3	80	0.3
Missing/DK	27	0.2	7	0.0	34	0.1
<b>Dependency age groups</b>						
0-14	7,595	50.8	7,412	47.3	15,007	49.0
15-64	6,938	46.4	7,758	49.5	14,696	48.0
65+	392	2.6	490	3.1	882	2.9
Missing/DK	27	0.2	7	0.0	34	0.1
<b>Child and adult populations</b>						
Children age 0-17 years	8,718	58.3	8,447	53.9	17,165	56.1
Adults age 18+ years	6,207	41.5	7,213	46.0	13,420	43.8
Missing/DK	27	0.2	7	0.0	34	0.1
<b>Total</b>	<b>14,952</b>	<b>100.0</b>	<b>15,667</b>	<b>100.0</b>	<b>30,619</b>	<b>100.0</b>

The population structure is characteristic of a society with a very young population with a high number of children aged below 15 years (49 percent). More than half the population (56 percent) is between the age of 0 and 17 years. Forty eight percent of the population is aged between 15 and 64 years with only about 3 percent aged over 65 years.

From the population pyramid (Figure HH.1) and data quality tables (Appendix D) it appears like females aged 45-49 are underrepresented while there is a large bulge of women aged 50-54. Similarly, children aged 5-9 of both genders appear to be overrepresented as well as women 10-14 years. This suggests that enumerators may have introduced data quality errors by overstating the age of children aged under five years and women aged 10-14 and 40-49 possibly in order to minimize the number of interviews that they had to conduct. Furthermore, it is difficult to collect accurate information on age in Somalia as very few people have birth certificates or any form of identification and many more do not know their exact year of birth.

In order to improve the accuracy of age data, a calendar of events was developed listing key events and annual seasons for the last 50 years such as the independence of Somalia and the 1988 war among others. These were used to help the women estimate their year and month of birth as well as those of their children (in case of children under five years). Table DQ.1 in Appendix D presents ages in single year categories; the table shows high level of digit preference for ages ending in zero and five. In only less than one percent was age unreported.

**Figure HH.1: Age and sex distribution of household population, Somaliland, 2011**



Tables HH.3-HH.5 provide basic information on the households, female respondents age 15-49 and children under-5 by presenting the unweighted, as well as the weighted numbers. Information on the basic characteristics of households, women and children under-5 interviewed in the survey is essential for the interpretation of findings presented later in the report and can also provide an indication of the representativeness of the survey. The remaining tables in this report are presented only with weighted numbers. See Appendix A for more details about the weighting.

<b>Table HH.3: Household composition</b>			
Percent and frequency distribution of households by selected characteristics, Somaliland, 2011			
	Weighted percent	<b>Number of households</b>	
		Weighted	Unweighted
<b>Sex of household head</b>			
Male	69.4	3,345	3,346
Female	30.6	1,475	1,474
<b>Region</b>			
Maroodijeex/Saaxil	45.1	2,176	2,205
Awdal	15.1	725	724
Togdheer	19.8	953	948
Sool	6.1	295	296
Sanaag	13.9	670	647
<b>Area</b>			
Urban	47.3	2,280	2,401
Rural	52.7	2,540	2,419
<b>Number of household members</b>			
1	1.9	91	89
2	6.0	287	282
3	8.7	419	415
4	12.5	605	601
5	14.1	679	674
6	13.2	639	637
7	11.4	551	551
8	9.9	477	478
9	7.2	345	349
10+	15.1	728	744
<b>Education of household head</b>			
None	69.1	3,333	3,316
Primary	13.2	637	638
Secondary+	15.0	722	738
Missing/DK	2.7	128	128
<b>Households with at least</b>			
One child age 0-4 years	56.9	4,820	4,820
One child age 0-17 years	90.2	4,820	4,820
One woman age 15-49 years	88.2	4,820	4,820
<b>Mean household size</b>	6.4	4,820	4,820

Table HH.3 provides basic background information on the households. Within households, the sex of the household head, region, residence, number of household members, and education of household head are shown in the table. These background characteristics are used in subsequent tables in this report; the figures in the table are also intended to show the numbers of observations by major categories of analysis in the report.

In all tables in this report, the total weighted and total unweighted numbers of households are equal, since sample weights were normalized (See Appendix A). The table also shows the proportions of households with at least one child under 18, at least one child under 5, and at least one eligible woman age 15-49. The table also shows the weighted average household size estimated by the survey.

In Somaliland, households are predominantly male headed with only about one in three households headed by a female. Households are quite large; the average household size observed in the survey is 6.4 persons with 15 percent households having ten or more household members. About 57 percent of the households have at least one child aged under 5 years and 90 percent have at least one child aged below 18 years. Most of the households (88 percent) had at least one woman of reproductive age.

### **Characteristics of Female Respondents 15-49 Years of Age and Children Under-5**

Tables HH.4 and HH.5 provide information on the background characteristics of female respondents 15-49 years of age and of children under age 5. In addition they show the numbers of observations in each background category. These categories are used in the subsequent tabulations of this report.

Table HH.4 provides background characteristics of female respondents 15-49 years of age. The table includes information on the distribution of women according to region, residence, age, marital status, motherhood status, births in last two years, education<sup>5</sup>, and wealth index quintiles<sup>6</sup>.

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<sup>5</sup> Unless otherwise stated, “education” refers to educational level attended by the respondent throughout this report when it is used as a background variable.

<sup>6</sup> Principal components analysis was performed by using information on the ownership of consumer goods, dwelling characteristics, water and sanitation, and other characteristics that are related to the household’s wealth to assign weights (factor scores) to each of the household assets. Each household was then assigned a wealth score based on these weights and the assets owned by that household. The survey household population was then ranked according to the wealth score of the household they are living in, and was finally divided into 5 equal parts (quintiles) from lowest (poorest) to highest (richest). The assets used in these calculations were as follows: main source of drinking water, toilet facility, number of rooms used for sleeping, main materials for dwelling floor, main material of the roof, main material of the exterior walls, type of cooking fuel, radio, television, non-mobile telephone, refrigerator, charcoal stove/Jiko, wheel burrow, mat, vacuum flask, kerosene lamp, fan, bed, sofa, Somali stool, sitting cushion/pillow, watch, mobile phone, bicycle, motorcycle or scooter, animal drawn cart, car or truck, boat with motor, house ownership, land ownership, land size in hectares, ownership of livestock: herds, other farm animals or poultry, cattle - milk cows or bulls, horses, donkeys or mules, goats, sheep, chickens, camels, and having a bank account. The wealth index is assumed to capture the underlying long-term wealth through information on the household assets, and is intended to produce a ranking of households by wealth, from poorest to richest. The wealth index does not provide information on absolute poverty, current income or expenditure levels. The wealth scores calculated are applicable for only the particular data set they are based on. Further information on the construction of the wealth index can be found in *Filmer, D. and Pritchett, L., 2001. “Estimating wealth effects without expenditure data – or tears: An application to educational enrolments in states of India”*. *Demography* 38(1): 115-132. *Gwatkin, D.R., Rutstein, S., Johnson, K. ,Pande, R. and Wagstaff, A., 2000. Socio-Economic Differences in Health, Nutrition, and Population. HNP/Poverty Thematic Group,*

**Table HH.4: Women's background characteristics**

Percent and frequency distribution of women age 15-49 years by selected background characteristics, Somaliland, 2011.

	Weighted percent	Number of women	
		Weighted	Unweighted
<b>Region</b>			
Maroodijeex/Saaxil	49.9	2,925	2,951
Awdal	14.3	841	835
Togdheer	18.4	1,078	1,058
Sool	5.4	314	319
Sanaag	12.0	707	702
<b>Area</b>			
Urban	57.6	3,378	3,541
Rural	42.4	2,487	2,324
<b>Age</b>			
15-19	24.7	1,451	1,464
20-24	19.6	1,148	1,152
25-29	18.1	1,060	1,059
30-34	12.5	731	722
35-39	11.5	673	669
40-44	9.2	540	535
45-49	4.5	262	264
<b>Marital/Union status</b>			
Currently married	53.6	3,146	3,118
Widowed	2.8	166	165
Divorced	4.7	273	272
Separated	0.4	24	24
Never married	38.3	2,248	2,278
Missing	0.1	8	8
<b>Motherhood status<sup>b</sup></b>			
Ever gave birth	56.5	3,316	3,287
Never gave birth	43.3	2,539	2,568
Missing	0.2	10	10
<b>Births in last two years<sup>c</sup></b>			
Had a birth in last two years	26.7	1,566	1,553
Had no birth in last two years	73.1	4,289	4,302
Missing	0.2	10	10
<b>Education</b>			
None	67.5	3,956	3,926
Primary	20.9	1,227	1,236
Secondary+	11.6	682	703
<b>Wealth index quintile</b>			
Poorest	15.7	920	867
Second	18.2	1,068	1,024
Middle	19.8	1,162	1,166
Fourth	21.4	1,254	1,295
Richest	24.9	1,461	1,513
<b>Total</b>	<b>100.0</b>	<b>5,865</b>	<b>5,865</b>

Washington, DC: World Bank. Rutstein, S.O. and Johnson, K., 2004. *The DHS Wealth Index*. DHS Comparative Reports No. 6. Calverton, Maryland: ORC Macro.

Half of the women sampled were from Maroodijeex/Sahil region. This region has the highest population in the Somaliland especially in the Hargeisa city. Consequently more than half (58 percent) of the women sampled were from urban areas compared to 42 percent from the rural areas. The proportion of women for each 5 year age category decreased with age and about one in four were aged 15 to 19 years compared to just under one in twenty in the 45 – 49 years category. Illiteracy among women is high and more than two thirds (68 percent) of the women sampled had no education at all and about twenty-one percent had primary level education (Table HH.4). Only one in 10 women had secondary or higher level of education.

<b>Table HH.5: Under-5's background characteristics</b>			
Percent and frequency distribution of children under five years of age by selected characteristics, Somaliland, 2011.			
	Weighted percent	Number of under-5 children	
		Weighted	Unweighted
<b>Sex</b>			
Male	51.3	2,395	2,395
Female	48.7	2,277	2,277
<b>Region</b>			
Maroodijeex/Saaxil	44.4	2,074	2,099
Awdal	15.6	727	725
Togdheer	20.3	948	944
Sool	5.6	262	266
Sanaag	14.2	661	638
<b>Area</b>			
Urban	48.3	2,256	2,373
Rural	51.7	2,416	2,299
<b>Age</b>			
0-5 months	11.9	557	555
6-11 months	8.1	376	378
12-23 months	16.5	771	774
24-35 months	21.1	987	988
36-47 months	22.8	1,067	1,063
48-59 months	19.6	914	914
<b>Mother's education*</b>			
None	80.1	3,745	3,732
Primary	15.2	709	716
Secondary+	4.6	217	222
Missing/DK	0.0	2	2
<b>Wealth index quintile</b>			
Poorest	21.3	995	954
Second	22.6	1,055	1,026
Middle	20.1	940	952
Fourth	19.6	916	947
Richest	16.4	766	793
Total	100.0	4,672	4,672

\*Mother's education refers to educational attainment of mothers and caretakers of children under the age of 5 years.

Some background characteristics of children under 5 are presented in Table HH.5. These include the distribution of children by several attributes: sex, region and area of residence, age, mother's or caretaker's education and household wealth.

Slightly over half of the children under 5 are males (51 percent) against 49 percent female. Each single age group contains about 20 percent of the under 5 population except the age group 12-23 months

where the proportion is 17 percent. The educational level of mothers and caretakers is very low. The majority of mothers and caretakers had not attended any form of formal education (80 percent) and only one in twenty had reached secondary school or higher.

## IV. Child Mortality<sup>7</sup>

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One of the overarching goals of the Millennium Development Goals (MDGs) and the World Fit for Children (WFFC) is to reduce infant and under-five mortality. Specifically, the MDGs call for the reduction of under-five mortality by two-thirds between 1990 and 2015. Monitoring progress towards this goal is an important but difficult objective.

Mortality rates presented in this chapter are calculated from information collected in the birth history of the Women's Questionnaire. Women in the age-group 15-49 were asked whether they had ever given birth, and if yes, they were asked to report the number of sons and daughters who live with them, the number who live elsewhere, and the number who have died. In addition, they were asked to provide a detailed birth history of live births of children in chronological order starting with the firstborn. Women were asked whether births were single or multiple, the sex of the children, the date of birth (month and year), and survival status. Further, for children still alive, they were asked the current age of the child and, if not alive, the age at death. Since the primary causes of childhood mortality change as children age, from mostly biological factors to environmental factors, childhood mortality rates are expressed by age categories and are defined as follows;

- Neonatal mortality (NN): the probability of dying within the first month of life
- Post-neonatal mortality (PNN): the difference between infant and neonatal mortality
- Infant mortality (1q0): the probability of dying between birth and the first birthday
- Child mortality (4q1): the probability of dying between exact ages one and five
- Under-five mortality (5q0): the probability of dying between birth and the fifth birthday

The rates of childhood mortality are expressed as deaths per 1,000 live births, except in the case of child mortality, which is expressed as deaths per 1,000 children surviving to age one.

Table CM.1 presents neonatal, post-neonatal, infant, child, and under-five mortality rates for the three most recent five year periods before the survey. Neonatal mortality in the most recent 5-year period is estimated at 42 per 1,000 live births, while the post-neonatal mortality rate is estimated as 30 per 1,000 live births.

The infant mortality rate in the five years preceding the survey is 72 per 1,000 live births and under-five mortality is 91 deaths per 1,000 live births for the same period, indicating that the majority of under-five deaths are infant deaths.

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<sup>7</sup>**Note:** The presented mortality estimates are generated based on the Birth History module of the MICS questionnaires which is recognized as more complex to administer even in more stable countries. A review of the mortality data indicates potential underestimation and therefore the child mortality results need to be interpreted with caution.

**Table CM.1: Early childhood mortality rates**

Neonatal, post-neonatal, Infant, child and under-five mortality rates for five year periods preceding the survey, Somaliland, 2011.					
	Neonatal mortality rate <sup>1</sup>	Post-neonatal mortality rate <sup>2</sup>	Infant mortality rate <sup>3</sup>	Child mortality rate <sup>4</sup>	Under-five mortality rate <sup>5</sup>
<b>Years preceding the survey</b>					
0-4	42	30	72	20	91
5-9	32	37	69	28	95
10-14	30	40	70	41	108

<sup>1</sup> MICS indicator 1.3  
<sup>2</sup> MICS indicator 1.4  
<sup>3</sup> MICS indicator 1.2; MDG indicator 4.2  
<sup>4</sup> MICS indicator 1.5  
<sup>5</sup> MICS indicator 1.1; MDG indicator 4.1  
Note: Post-neonatal mortality rates are computed as the difference between the infant and neonatal mortality rates

Table CM.1 shows, that at the regional level, little, if any improvement has taken place during the last 15 years, with under-five mortality at 108 per 1,000 during the 10-14 year period preceding the survey, and 91 per 1,000 live births during the most recent 5-year period, roughly referring to the years 2006-2011.

**Table CM.2: Early childhood mortality rate by socioeconomic characteristics**

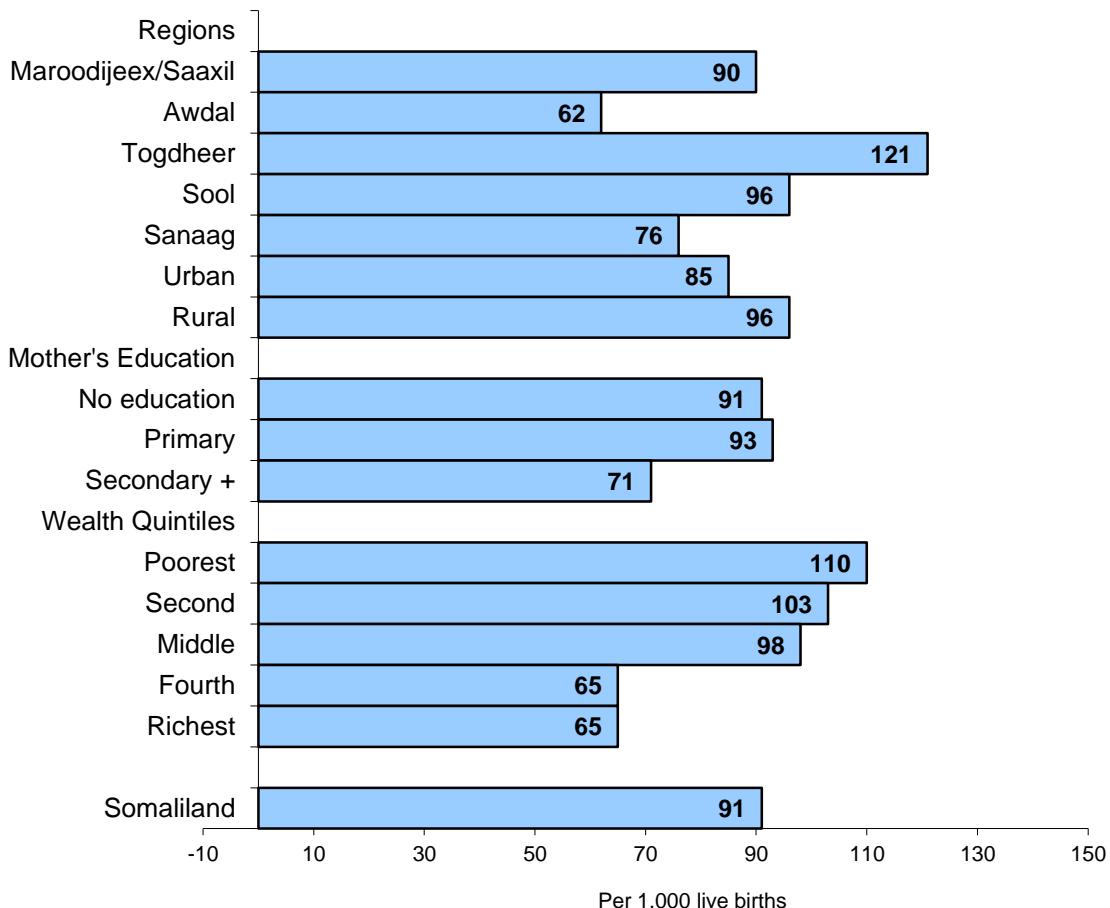
	Neonatal mortality rate <sup>1</sup>	Post-neonatal mortality rate <sup>2</sup>	Infant mortality rate <sup>3</sup>	Child mortality rate <sup>4</sup>	Under-five mortality rate <sup>5</sup>
<b>Region</b>					
Maroodijex/Saaxil	46	30	76	15	90
Awdal	29	21	50	12	62
Togdheer	49	45	94	29	121
Sool	52	22	74	25	97
Sanaag	32	19	51	27	76
<b>Area</b>					
Urban	41	28	69	17	85
Rural	44	31	75	22	96
<b>Mother's education</b>					
None	44	30	73	20	91
Primary	39	35	74	20	93
Secondary+	32	20	53	20	71
<b>Wealth index quintile</b>					
Poorest	44	40	84	28	110
Second	50	32	81	24	103
Middle	44	35	79	21	98
Fourth	29	21	51	15	65
Richest	44	17	61	5	66
<b>Total</b>	<b>42</b>	<b>30</b>	<b>72</b>	<b>20</b>	<b>91</b>

Tables CM.2 and CM.3 provides estimates of child mortality by socioeconomic and demographic characteristics. Infant and under-5 mortality rates are lowest in Awdal region and highest in Togdheer. Mortality rates are higher in rural than in urban areas. Furthermore, they tend to be higher among males than females. Consistently across the different mortality indicators, the poorest wealth quintile shows very high levels of mortality compared to the richest quintile, except for neonatal mortality. There are also notable differences in mortality in terms of educational levels where the rates are lower among children whose mothers have secondary or higher education. The previous birth interval has a

strong bearing on mortality with childhood mortality rates declining as the previous birth interval increases. Differentials in under-5 mortality rates by selected background characteristics are shown in Figure CM.1.

<b>Table CM.3: Early childhood mortality rates by demographic characteristics</b>					
Neonatal, post-neonatal, Infant, child and under-five mortality rates for the five year period preceding the survey, by demographic characteristics, Somaliland, 2011.					
	Neonatal mortality rate <sup>1</sup>	Post-neonatal mortality rate <sup>2</sup>	Infant mortality rate <sup>3</sup>	Child mortality rate <sup>4</sup>	Under-five mortality rate <sup>5</sup>
<b>Sex of child</b>					
Male	48	28	76	20	95
Female	36	32	68	19	86
<b>Mother's age at birth</b>					
Less than 20	66	29	95	27	119
20-34	36	29	65	18	82
35-49	58	36	94	22	114
<b>Birth order</b>					
1	44	21	65	19	82
2-3	40	23	63	18	79
4-6	33	31	65	18	81
7+	56	42	98	25	121
<b>Previous birth interval*</b>					
< 2 years	54	48	103	25	125
2 years	31	20	51	19	69
3 years	32	9	41	7	47
4+ years	26	2	28	9	37
Total	42	30	72	20	91
<sup>1</sup> MICS indicator 1.3					
<sup>2</sup> MICS indicator 1.4					
<sup>3</sup> MICS indicator 1.2; MDG indicator 4.2					
<sup>4</sup> MICS indicator 1.5					
<sup>5</sup> MICS indicator 1.1; MDG indicator 4.1					
* Excludes first order births					
Post-neonatal mortality rates are computed as the difference between the infant and neonatal mortality rates					

**Figure CM.1: Under-5 mortality rates by background characteristics,  
Somaliland, 2011**



## V. Nutrition

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### Breastfeeding and Infant and Young Child Feeding

Breastfeeding for the first few years of life protects children from infection, provides an ideal source of nutrients, and is economical and safe. However, many mothers stop breastfeeding too soon and there are often pressures to switch to infant formula, which can contribute to growth faltering and micronutrient malnutrition and is unsafe if clean water is not readily available.

WHO/UNICEF have the following feeding recommendations:

- Exclusive breastfeeding for first six months
- Continued breastfeeding for two years or more
- Safe and age-appropriate complementary foods beginning at 6 months
- Frequency of complementary feeding: 2 times per day for 6-8 month olds; 3 times per day for 9-11 month olds

It is also recommended that breastfeeding be initiated within one hour of birth.

The indicators related to recommended child feeding practices are as follows:

- Early initiation of breastfeeding (within 1 hour of birth)
- Exclusive breastfeeding rate (< 6 months)
- Predominant breastfeeding (< 6 months)
- Continued breastfeeding rate (at 1 year and at 2 years)
- Duration of breastfeeding
- Age-appropriate breastfeeding (0-23 months)
- Introduction of solid, semi-solid and soft foods (6-8 months)
- Minimum meal frequency (6-23 months)
- Milk feeding frequency for non-breastfeeding children (6-23 months)
- Bottle feeding (0-23 months)

Table NU.1 shows the proportion of children born in the two years preceding the survey who were ever breastfed, those who were first breastfed within one hour and one day of birth, and those who received a prelacteal feed. Although a very important step in management of lactation and establishment of a physical and emotional relationship between the baby and the mother, 61 percent of babies are breastfed for the first time within one hour of birth, while 85 percent of new-borns in Somaliland start breastfeeding within one day of birth.

Initiation of breastfeeding within one day of birth was similar across the background characteristics. However, initiation of breastfeeding within one hour depended on mother's education and wealth status. More children (71 percent) born of mothers with secondary or more education, had breastfeeding within one hour of birth compared to those whose mothers had no education (60 percent). A similar pattern was observed across wealth quintiles with fewer children born in poor households receiving breast milk within one hour of birth (58 percent) compared to those in the richest quintile (69 percent). As presented in figure NU.1, Togdheer region has the lowest rate (53 percent) of

initiation of breastfeeding within one hour of birth compared to other regions whose rates are slightly higher and consistently above 60 percent.

**Table NU.1: Initial breastfeeding**

Percentage of last-born children in the 2 years preceding the survey who were ever breastfed, percentage who were breastfed within one hour of birth and within one day of birth, and percentage who received a prelacteal feed, Somaliland, 2011

	Percentage who were ever breastfed <sup>1</sup>	Percentage who were first breastfed:		Percentage who received a prelacteal feed	Number of last-born children in the two years preceding the survey
<b>Region</b>					
Maroodijeex/Saaxil	89.4	62.1	82.4	42.6	715
Awdal	93.7	65.2	89.2	42.4	244
Togdheer	90.8	52.9	83.8	40.4	321
Sool	97.0	65.0	90.1	52.6	90
Sanaag	93.1	62.1	85.7	46.3	200
<b>Area</b>					
Urban	91.5	61.1	84.4	42.9	926
Rural	92.0	61.1	85.7	44.2	606
<b>Months since last birth</b>					
0-11 months	91.5	61.2	84.5	43.0	926
12-23 months	92.0	61.2	85.7	44.2	607
<b>Assistance at delivery<sup>a</sup></b>					
Skilled attendant	90.5	67.9	85.8	38.9	692
Traditional birth attendant	94.0	60.7	86.5	49.1	644
Other	96.3	43.3	84.8	45.4	171
<b>Place of delivery</b>					
Public sector health facility	91.7	66.8	84.8	36.8	295
Private sector health facility	89.0	66.7	83.1	45.3	185
Home	93.7	59.3	86.7	45.6	1,055
Other/missing	(28.3)	(28.3)	(28.3)	(13.9)	35
<b>Mother's education</b>					
None	91.4	59.8	84.3	45.9	1,237
Primary	90.2	63.2	84.9	35.4	260
Secondary+	93.3	70.8	88.0	24.2	73
<b>Wealth index quintile</b>					
Poorest	91.8	58.4	84.7	51.5	325
Second	92.9	52.6	83.8	47.3	342
Middle	93.6	64.9	87.6	39.9	313
Fourth	87.8	61.6	81.9	40.1	317
Richest	90.1	68.7	85.2	35.5	274
<b>Total</b>	<b>91.3</b>	<b>60.9</b>	<b>84.6</b>	<b>43.2</b>	<b>1,570</b>

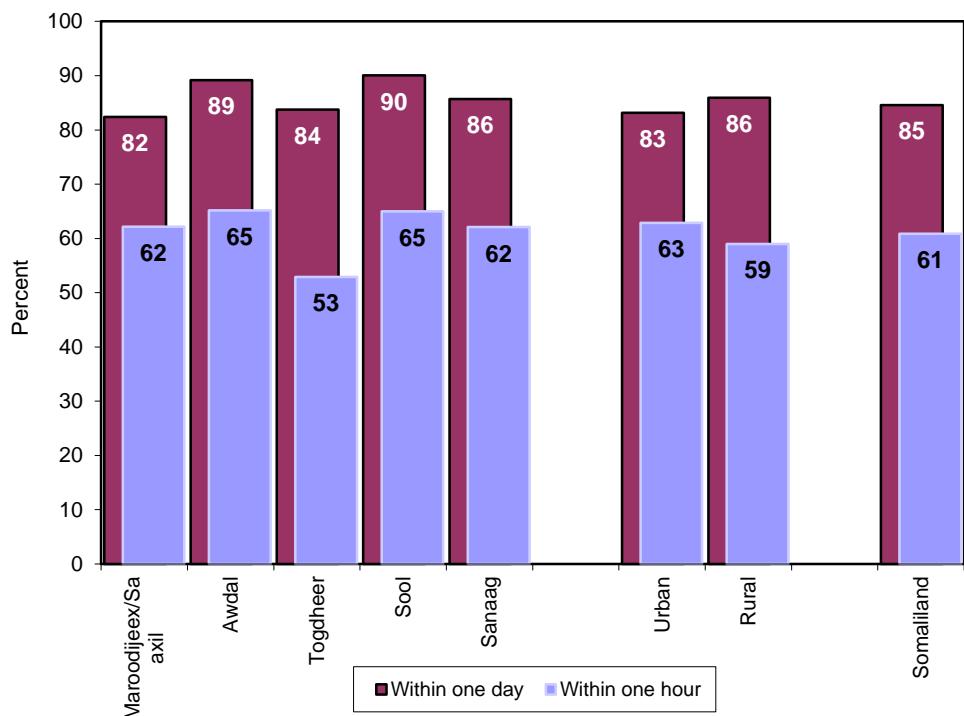
<sup>1</sup> MICS indicator 2.4a;

<sup>2</sup> MICS indicator 2.5

( ) Figures that are based on 25-49 unweighted cases

<sup>a</sup>Total includes 62 unweighted cases children missing information on assistance at delivery who are not shown separately

**Figure NU.1: Percentage of mothers who started breastfeeding within one hour and within one day of birth, Somaliland, 2011**



In Table NU.2, breastfeeding status is based on the reports of mothers/caretakers of children's consumption of food and fluids during the previous day or night prior to the interview. Exclusively breastfed refers to infants who received only breast milk and vitamins, mineral supplements, or medicine. The table shows exclusive breastfeeding of infants during the first six months of life, as well as continued breastfeeding of children at 12-15 and 20-23 months of age.

Approximately 13 percent of children aged less than six months are exclusively breastfed, a level considerably lower than recommended. By age 12-15 months, 46 percent of children are still being breastfed and by age 20-23 months, 19 percent are still breastfed. The rate of exclusive breastfeeding was higher in girls than boys. There appear to be no differences in breastfeeding practices between rural and urban areas. However between regions the rate of exclusive breastfeeding is highest in Maroodijeex/Sahil (18 percent) and lowest in Togdheer (7 percent). Between the different wealth quintiles the rates of exclusive breastfeeding does not differ much between the poorest (15 percent) and the richest (16 percent) quintile and is lowest amongst the fourth wealth quintile (10 percent).

**Table NU.2: Breastfeeding**

Percentage of living children according to breastfeeding status at selected age groups, Somaliland, 2011

	Children age 0-5 months			Children age 12-15 months		Children age 20-23 months	
	Percent exclusively breastfed <sup>1</sup>	Percent predominantly breastfed <sup>2</sup>	Number of children	Percent breastfed (Continued breastfeeding at 1 year) <sup>3</sup>	Number of children	Percent breastfed (Continued breastfeeding at 2 years) <sup>4</sup>	Number of children
<b>Sex</b>							
Male	10.7	31.8	298	47.3	164	15.7	84
Female	15.3	33.9	258	45.5	178	24.2	61
<b>Region</b>							
Maroodijeex/Saaxil	17.9	37.3	239	52.1	152	25.2	71
Awdal	10.0	43.2	90	55.5	54	(*)	21
Togdheer	7.1	15.0	116	38.1	68	(0.0)	31
Sool	(11.1)	(32.5)	35	(*)	21	(*)	5
Sanaag	10.0	33.2	77	40.7	47	(*)	18
<b>Area</b>							
Urban	12.7	34.6	250	45.8	170	17.2	78
Rural	13.0	31.2	307	46.8	172	21.6	68
<b>Mother's education</b>							
None	12.3	33.6	445	49.3	281	20.1	105
Primary	14.8	25.2	86	36.7	47	(16.0)	31
Secondary+	(15.3)	(42.5)	25	(*)	15	(*)	10
<b>Wealth index quintile</b>							
Poorest	14.8	36.1	132	48.4	69	(15.5)	27
Second	11.8	28.5	120	54.7	75	(29.9)	32
Middle	11.9	37.3	113	46.1	72	(*)	21
Fourth	10.4	26.8	112	39.0	68	(20.1)	34
Richest	15.9	35.5	79	42.0	58	(15.3)	32
Total	12.8	32.7	557	46.3	342	19.2	146

<sup>1</sup> MICS indicator 2.6<sup>2</sup> MICS indicator 2.9<sup>3</sup> MICS indicator 2.7<sup>4</sup> MICS indicator 2.8

(\*) Figures that are based on less than 25 unweighted cases

( ) Figures that are based on 25 – 49 unweighted cases

Figure NU.2 shows the detailed pattern of breastfeeding by the child's age in months. Even at the earliest ages, the majority of children are receiving liquids or foods other than breast milk. By the end of the sixth month, the percentage of children exclusively breastfed is below 5 percent. Only about 20 percent of children are receiving breast milk after 2 years.

**Figure NU.2: Infant feeding patterns by age, Somaliland, 2011**

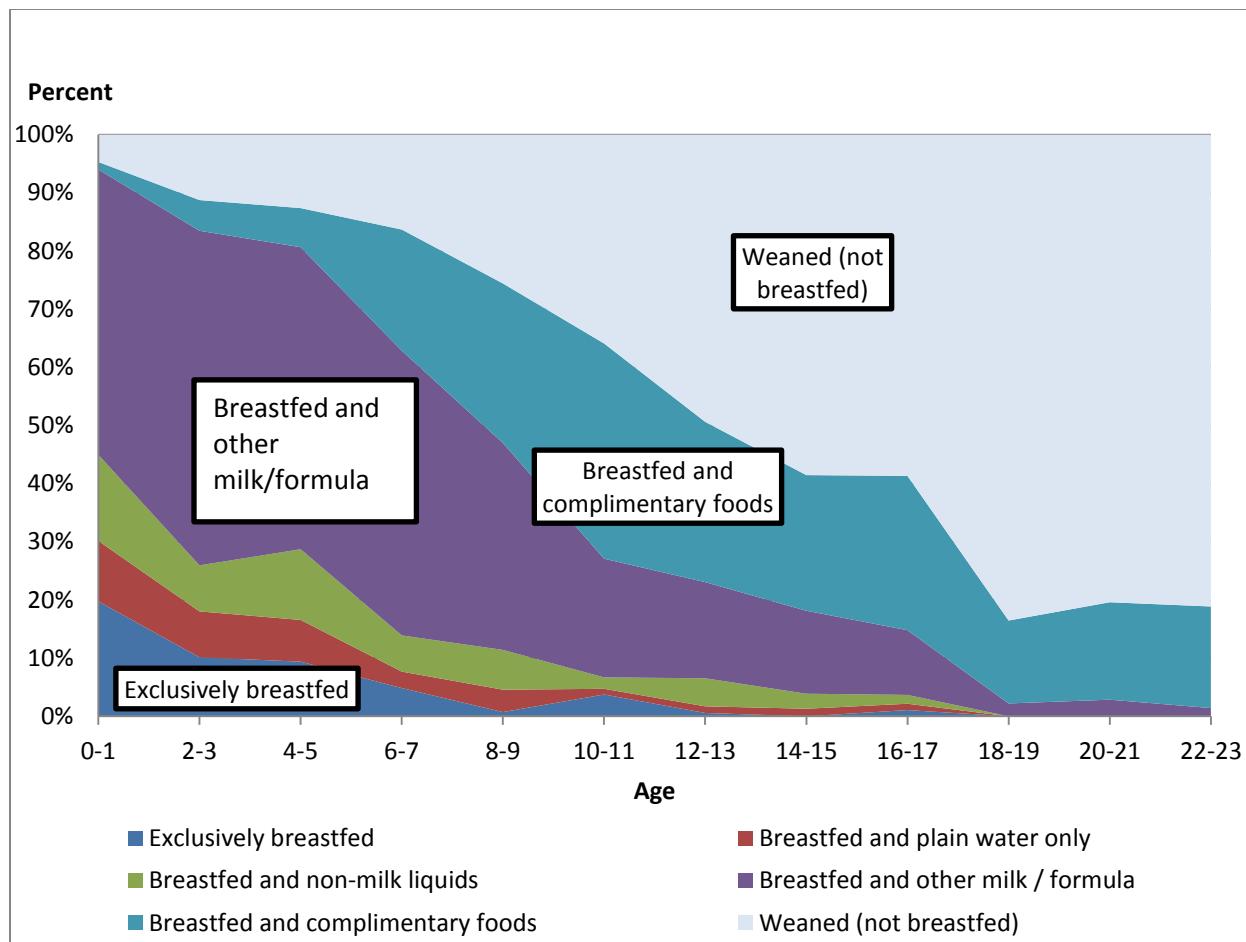


Table NU.3 shows the median duration of breastfeeding by selected background characteristics. Among children under age 3, the median duration is 15 months for any breastfeeding, 1 month for exclusive breastfeeding, and 3 months for predominant breastfeeding. The median duration of any breastfeeding tend to decline with level of mothers education from 14 months for mothers with no education to 10 months for mothers with secondary or higher education. In addition, any breastfeeding is lowest in Sool region (10 months) and highest in Awdal region (15 months).

**Table NU.3: Duration of breastfeeding**

Median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among children age 0-35 months, Somaliland, 2011

	Median duration (in months) of			
	Any breastfeeding <sup>1</sup>	Exclusive breastfeeding	Predominant breastfeeding	Number of children age 0-35 months
<b>Sex</b>				
Male	12.4	0.5	0.7	1,390
Female	12.8	0.5	0.7	1,302
<b>Region</b>				
Maroodijeex/Saaxil	14.1	0.5	1.1	1,165
Awdal	14.9	0.4	1.8	440
Togdheer	11.2	0.4	0.5	551
Sool	9.9	0.5	1.4	171
Sanaag	12.2	0.4	0.7	364
<b>Area</b>				
Urban	12.3	0.5	1.1	1,309
Rural	13.2	0.5	0.6	1,383
<b>Mother's education<sup>a</sup></b>				
None	13.6	0.5	0.7	2,108
Primary	12.0	0.5	0.6	453
Secondary+	10.1	0.5	2.0	129
<b>Wealth index quintile</b>				
Poorest	14.3	0.5	0.6	552
Second	14.6	0.5	0.6	597
Middle	10.5	0.4	1.1	532
Fourth	11.8	0.5	0.7	557
Richest	11.9	0.5	0.7	454
Median	12.6	0.5	0.7	2,691
Mean for all children (0-35 months)	14.7	1.0	2.9	2,691

<sup>1</sup> MICS indicator 2.10

<sup>a</sup>Total includes 2 unweighted cases of children missing information on Mother's education that are not shown separately

The adequacy of infant feeding in children under 24 months is provided in Table NU.4. Different criteria of feeding are used depending on the age of the child. For infants aged 0-5 months, exclusive breastfeeding is considered as age-appropriate feeding, while infants aged 6-23 months are considered to be appropriately fed if they are receiving breastmilk and solid, semi-solid or soft food. Only 13 percent of children under 6 months are exclusively breastfed. The rate of exclusive breastfeeding for this category is lowest in Togdheer region (7 percent), and highest in Maroodijeex /Sahil (18 percent). Among children age 6 – 23 months only about one in four are currently breastfeeding and receiving solid, semi-solid or soft foods. More girls (27 percent) than boys (22 percent) are currently breastfeeding and also receiving solid, semi-solid or soft foods.

As a result of these feeding patterns, only 21 percent of children aged 0-23 months are being appropriately breastfed. Slightly more girls than boys are appropriately breastfed. More children are appropriately breastfed in Sanaag region (27 percent) than any other region while Sool region has the lowest percentage of children who are appropriately breastfed (9 percent).

<b>Table NU.4: Age-appropriate breastfeeding</b>						
Percentage of children age 0-23 months who were appropriately breastfed during the previous day, Somaliland, 2011.						
	Children age 0-5 months		Children age 6-23 months		Children age 0-23 months	
	Percent exclusively breastfed <sup>1</sup>	Number of children	Percent currently breastfeeding and receiving solid, semi-solid or soft foods	Number of children	Percent appropriately breastfed <sup>2</sup>	Number of children
<b>Sex</b>						
Male	10.7	298	21.7	570	17.9	868
Female	15.3	258	27.1	578	23.4	836
<b>Region</b>						
Maroodijeex/Saaxil	17.9	239	25.2	527	22.9	766
Awdal	10.0	90	29.4	174	22.7	264
Togdheer	7.1	116	16.1	235	13.1	351
Sool	(11.1)	35	8.1	65	9.2	99
Sanaag	10.0	77	36.3	147	27.2	224
<b>Area</b>						
Urban	12.7	250	23.4	584	20.2	834
Rural	13.0	307	25.5	563	21.1	870
<b>Mother's education<sup>a</sup></b>						
None	12.3	445	24.6	877	20.4	1322
Primary	14.8	86	25.2	213	22.2	299
Secondary+	(15.3)	25	19.3	57	18.0	82
<b>Wealth index quintile</b>						
Poorest	14.8	132	24.0	210	20.4	343
Second	11.8	120	27.1	247	22.1	367
Middle	11.9	113	25.7	229	21.1	341
Fourth	10.4	112	23.2	240	19.1	352
Richest	15.9	79	21.8	222	20.2	301
Total	12.8	557	24.4	1,147	20.6	1,704

<sup>1</sup> MICS indicator 2.6

<sup>2</sup> MICS indicator 2.14

( ) Figures that are based on 25-49 unweighted cases

<sup>a</sup>Total includes 1 unweighted case of child missing information on mothers education that is not shown separately

Appropriate complementary feeding of children from 6 months to two years of age is particularly important for growth and development and the prevention of undernutrition. Continued breastfeeding beyond six months should be accompanied by consumption of nutritionally adequate, safe and appropriate complementary foods that help meet nutritional requirements when breastmilk is no longer sufficient. This requires that for breastfed children, two or more meals of solid, semi-solid or soft foods are needed if they are six to eight months old, and three or more meals if they are 9-23 months of age. For children 6-23 months and older who are not breastfed, four or more meals of solid, semi-solid or soft foods or milk feeds are needed.

Overall, 33 percent of infants age 6-8 months received solid, semi-solid, or soft foods (Table NU.5). Among currently breastfeeding infants this percentage is 30 while it is 43 percent (to be interpreted with caution as it is based on 34 unweighted cases) among infants currently not breastfeeding. More girls than boys get timely introduction of complimentary feeding.

**Table NU.5: Introduction of solid, semi-solid or soft foods**

Percentage of infants age 6-8 months who received solid, semi-solid or soft foods during the previous day, Somaliland, 2011.

	Currently breastfeeding		Currently not breastfeeding		All	
	Percent receiving solid, semi-solid or soft foods	Number of children age 6-8 months	Percent receiving solid, semi-solid or soft foods	Number of children age 6-8 months	Percent receiving solid, semi-solid or soft foods <sup>1</sup>	Number of children age 6-8 months
<b>Sex</b>						
Male	23.1	86	(*)	18	25.4	105
Female	38.1	82	(*)	16	40.1	98
<b>Area</b>						
Urban	34.4	75	(*)	22	36.1	97
Rural	27.2	94	(*)	12	29.2	106
Total	30.4	168	(42.8)	34	32.5	203

<sup>1</sup> MICS indicator 2.12  
( ) Figures that are based on 25-49 unweighted cases  
(\*) Figures that are based on less than 25 unweighted cases

Table NU.6 presents the proportion of children age 6-23 months who received semi-solid or soft foods the minimum number of times or more during the day or night preceding the interview by breastfeeding status (see the note in Table NU.6 for a definition of minimum number of times for different age groups). Overall, more than a half of the children age 6-23 months (54 percent) were receiving the minimum meal frequency of solid, semi-solid and soft foods. A higher proportion of females (57 percent) were receiving the minimum meal frequency compared to males (50 percent).

Among currently breastfeeding children age 6-23 months, just over a quarter (27 percent) were receiving the minimum meal frequency of solid, semi-solid and soft foods and this proportion was higher among females (32 percent) compared to males (22 percent). Among non-breastfeeding children, more than three in four of the children were receiving solid, semi-solid and soft foods or milk feeds 4 times or more.

**Table NU.6: Minimum meal frequency**

Percentage of children age 6-23 months who received solid, semi-solid, or soft foods (and milk feeds for non-breastfeeding children) the minimum number of times or more during the previous day, according to breastfeeding status, Somaliland, 2011.

	Currently breastfeeding		Currently not breastfeeding		All		
	Percent receiving solid, semi-solid and soft foods the minimum number of times	Number of children age 6-23 months	Percent receiving at least 2 milk feeds <sup>1</sup>	Percent receiving solid, semi-solid and soft foods or milk feeds 4 times or more	Number of children age 6-23 months	Percent with minimum meal frequency <sup>2</sup>	Number of children age 6-23 months
<b>Sex</b>							
Male	21.5	280	89.2	77.9	290	50.2	570
Female	32.2	285	89.4	80.8	293	56.8	578
<b>Age</b>							
6-8 months	24.4	168	94.3	(77.2)	34	33.3	203
9-11 months	17.4	115	86.3	76.6	59	37.5	174
12-17 months	30.6	239	89.2	78.3	298	57.1	537
18-23 months	40.8	43	89.5	82.1	191	74.6	234
<b>Region</b>							
Maroodijeex/Saaxil	25.9	263	88.9	78.0	264	52.0	527
Awdal	27.9	104	88.4	84.1	70	50.6	174
Togdheer	22.8	91	90.8	80.4	144	58.1	235
Sool	(11.0)	28	88.8	(69.5)	37	44.5	65
Sanaag	38.8	80	88.8	82.7	67	58.8	147
<b>Area</b>							
Urban	28.8	270	90.5	81.8	314	57.3	584
Rural	25.1	295	87.8	76.5	268	49.6	563
<b>Mother's education<sup>h</sup></b>							
None	25.6	442	87.8	77.4	435	51.3	877
Primary	30.5	104	94.4	88.0	109	60.0	213
Secondary+	(35.9)	20	94.4	(79.1)	37	64.2	57
Missing/DK	(*)	0	(*)	(*)	1	(*)	1
<b>Wealth index quintile</b>							
Poorest	20.7	112	88.2	72.4	98	44.8	210
Second	20.1	140	84.5	77.9	107	45.1	247
Middle	32.8	105	85.0	77.6	124	57.1	229
Fourth	36.9	107	94.1	84.6	133	63.4	240
Richest	26.4	102	93.6	82.3	120	56.7	222
Total	26.9	565	89.3	79.3	582	53.5	1,147

<sup>1</sup> MICS indicator 2.15

<sup>2</sup> MICS indicator 2.13

( ) Figures that are based on 25-49 unweighted cases

(\* ) Figures that are based less than 25 unweighted cases

Among currently breastfeeding children age 6-8 months, minimum meal frequency is defined as children who also received solid, semi-solid or soft foods 2 times or more. Among currently breastfeeding children age 9-23 months, receipt of solid, semi-solid or soft foods at least 3 times constitutes minimum meal frequency. For non-breastfeeding children age 6-23 months, minimum meal frequency is defined as children receiving solid, semi-solid or soft foods, and milk feeds, at least 4 times during the previous day.

The continued practice of bottle-feeding is a concern because of the possible contamination due to unsafe water and lack of hygiene in preparation. Table NU.7 shows that bottle-feeding is prevalent in Somaliland; 51 percent of children under 6 months are fed using a bottle with a nipple.

Bottle feeding is highest among children 6 – 11 months and lowest among children 12 – 23 months. Moreover, bottle-feeding is associated with wealth status and children in the poorest households use less bottle feeding (30 percent) compared to children in the richest households (70 percent). In addition, the education of the mother determines the use of bottle feeding with fewer children born to mothers with no education using bottle feeding (47 percent) compared to those children born to mothers with secondary or more education (77 percent).

<b>Table NU.7: Bottle feeding</b>		
Percentage of children age 0-23 months who were fed with a bottle with a nipple during the previous day, Somaliland, 2011.		
	Percentage of children age 0-23 months fed with a bottle with a nipple <sup>1</sup>	Number of children age 0-23 months
<b>Sex</b>		
Male	50.9	868
Female	50.7	836
<b>Age</b>		
0-5 months	58.0	557
6-11 months	60.0	376
12-23 months	41.0	771
<b>Region</b>		
Maroodijeex/Saaxil	55.1	766
Awdal	45.0	264
Togdheer	54.5	351
Sool	45.1	99
Sanaag	39.3	224
<b>Area</b>		
Urban	63.2	834
Rural	38.8	870
<b>Mother's education<sup>i</sup></b>		
None	46.7	1322
Primary	61.5	299
Secondary+	77.0	82
Missing/DK	(*)	1
<b>Wealth index quintile</b>		
Poorest	30.2	343
Second	41.8	367
Middle	52.1	341
Fourth	62.5	352
Richest	69.8	301
Total	50.8	1704

<sup>1</sup> MICS indicator 2.11

## **Children's Vitamin A Supplementation**

Vitamin A is essential for eye health and proper functioning of the immune system. It is found in foods such as milk, liver, eggs, red and orange fruits, red palm oil and green leafy vegetables, although the amount of vitamin A readily available to the body from these sources varies widely. In developing areas of the world, where vitamin A is largely consumed in the form of fruits and vegetables, daily per capita intake is often insufficient to meet dietary requirements. Inadequate intakes are further compromised by increased requirements for the vitamin as children grow or during periods of illness, as well as increased losses during common childhood infections. As a result, vitamin A deficiency is quite prevalent in the developing world and particularly in countries with the highest burden of under-five deaths.

The 1990 World Summit for Children set the goal of virtual elimination of vitamin A deficiency and its consequences, including blindness, by the year 2000. This goal was also endorsed at the Policy Conference on Ending Hidden Hunger in 1991, the 1992 International Conference on Nutrition, and the UN General Assembly's Special Session on Children in 2002. The critical role of vitamin A for child health and immune function also makes control of deficiency a primary component of child survival efforts, and therefore critical to the achievement of the fourth Millennium Development Goal: a two-thirds reduction in under-five mortality by the year 2015.

For countries with vitamin A deficiency problems, current international recommendations call for high-dose vitamin A supplementation every four to six months, targeted to all children between the ages of 6 to 59 months living in affected areas. Providing young children with two high-dose vitamin A capsules a year is a safe, cost-effective, efficient strategy for eliminating vitamin A deficiency and improving child survival. Giving vitamin A to new mothers who are breastfeeding helps protect their children during the first months of life and helps to replenish the mother's stores of vitamin A, which are depleted during pregnancy and lactation. For countries with vitamin A supplementation programs, the definition of the indicator is the percent of children 6-59 months of age receiving at least one high dose vitamin A supplement in the last six months.

Based on UNICEF/WHO guidelines, the Somaliland Ministry of Health recommends that children aged 6-11 months be given one high dose Vitamin A capsules and children aged 12-59 months given a vitamin A capsule every 6 months. In some parts of the country, Vitamin A capsules are linked to immunization services and are given when the child has contact with these services after six months of age. It is also recommended that mothers take a Vitamin A supplement within eight weeks of giving birth due to increased Vitamin A requirements during pregnancy and lactation.

Within the six months prior to the MICS, 40 percent of children aged 6-59 months received a high dose Vitamin A supplement (Table NU.8). Vitamin A supplementation coverage is lower in Sool region than in other regions. It is also higher in urban (45 percent) compared to rural areas (35 percent).

**Table NU.8: Children's vitamin A supplementation**

Percentage distribution of children age 6-59 months receiving a high dose vitamin A supplement in the last 6 months, Somaliland, 2011

	Percentage who received Vitamin A in the last 6 months according to:		Percentage of children who received Vitamin A in the last 6 months <sup>1</sup>	Number of children age 6-59 months
	Child health book/card/vaccination card	Mother's report		
<b>Sex</b>				
Male	2.3	40.0	40.6	2,097
Female	1.9	38.7	39.2	2,018
<b>Region</b>				
Maroodijeex/Saaxil	0.3	38.9	39.2	1,835
Awdal	0.2	41.0	41.0	637
Togdheer	4.8	42.1	43.2	832
Sool	0.7	31.6	31.9	227
Sanaag	6.7	38.0	39.2	584
<b>Area</b>				
Urban	2.5	44.5	45.1	2,006
Rural	1.8	34.5	34.9	2,109
<b>Age</b>				
6-11 months	2.5	22.9	24.6	376
12-23 months	1.8	34.7	35.1	771
24-35 months	1.9	40.9	41.5	987
36-47 months	3.0	44.4	44.7	1,067
48-59 months	1.5	42.6	42.8	914
<b>Mother's education</b>				
None	2.4	38.0	38.6	3,300
Primary	1.1	43.9	44.0	622
Secondary+	1.4	48.4	48.9	191
Missing /DK	(*)	(*)	(*)	1
<b>Wealth index quintile</b>				
Poorest	2.3	29.5	30.1	863
Second	1.9	36.8	37.1	934
Middle	2.4	43.4	43.9	828
Fourth	2.7	44.5	45.1	804
Richest	1.3	44.5	44.9	687
<b>Total</b>	<b>2.1</b>	<b>39.4</b>	<b>39.9</b>	<b>4,115</b>

<sup>1</sup> MICS indicator 2.17

Vitamin A supplementation in the last six months increases with the age of the child from 25 percent among children aged 6-11 months to 43 percent among children 48 – 59 months old.

The mother's level of education is also related to the likelihood of Vitamin A supplementation for the child. The percentage receiving a supplement in the last six months increases from 39 percent among children whose mothers have no education to 44 percent of those whose mothers have primary education and to 49 percent among children of mothers with secondary or higher education. In addition, wealth status also has a bearing on likelihood of vitamin A supplementation and the percent receiving supplements in the last six months rises from 30 percent for children in the poorest households to 45 percent for children in the richest households.

## Weighing children at birth

Weight at birth is a good indicator not only of a mother's health and nutritional status but also the newborn's chances for survival, growth, long-term health and psychosocial development. Low birth weight (less than 2,500 grams) carries a range of grave health risks for children. Babies who were undernourished in the womb face a greatly increased risk of dying during their early months and years. Those who survive have impaired immune function and increased risk of disease; they are likely to remain undernourished, with reduced muscle strength, throughout their lives, and suffer a higher incidence of diabetes and heart disease in later life. Children born underweight also tend to have a lower IQ and cognitive disabilities, affecting their performance in school and their job opportunities as adults. One of the major challenges in measuring the incidence of low birth weight is the fact that more than half of infants in the developing world are not weighed. In the past, most estimates of low birth weight for developing countries were based on data compiled from health facilities. However, these estimates are biased for most developing countries because the majority of newborns are not delivered in facilities, and those who are represent only a selected sample of all births. The percent of live birth below 2,500 grams is not presented here as the method of calculation would introduce significant bias on the estimate due to the low percentage of children actually weighed and the distribution of these across socio-economic and demographic groups. Overall, 20 percent of births were weighed at birth (Table NU.9).

<b>Table NU.9: Infants weighed at birth</b>		
Percentage of last-born children in the 2 years preceding the survey weighed at birth, Somaliland, 2011		
	Percent of live births weighed at birth <sup>2</sup>	Number of last-born children in the two years preceding the survey
<b>Region</b>		
Maroodijeex/Saaxil	32.4	715
Awdal	17.9	244
Togdheer	5.9	321
Sool	9.6	90
Sanaag	3.8	200
<b>Area</b>		
Urban	35.4	758
Rural	5.2	812
<b>Mother's education</b>		
None	15.7	1,237
Primary	29.6	260
Secondary+	54.6	73
<b>Wealth index quintile</b>		
Poorest	2.0	325
Second	5.3	342
Middle	17.2	313
Fourth	30.1	317
Richest	50.0	274
Total	19.8	1,570

## VI. Child Health

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### Vaccinations

The Millennium Development Goal (MDG) 4 is to reduce child mortality by two thirds between 1990 and 2015. Immunization plays a key part in this goal. Immunizations have saved the lives of millions of children in the three decades since the launch of the Expanded Programme on Immunization (EPI) in 1974. Worldwide there are still 27 million children overlooked by routine immunization and as a result, vaccine-preventable diseases cause more than 2 million deaths every year.

A World Fit for Children goal is to ensure full immunization of children under one year of age at 90 percent nationally, with at least 80 percent coverage in every district or equivalent administrative unit.

According to UNICEF and WHO guidelines, a child should receive a BCG vaccination to protect against tuberculosis, three doses of DPT to protect against diphtheria, pertussis, and tetanus, three doses of polio vaccine, and a measles vaccination by the age of 12 months.

The vaccination schedule followed by the Somaliland Immunization Programme provides all the above mentioned vaccinations. All vaccinations should be received during the first year of life. Taking into consideration this vaccination schedule, the estimates for full immunization coverage from the Somaliland MICS are based on children age 12-23 months.

Information on vaccination coverage was collected for all children under five years of age. All mothers or caretakers were asked to provide vaccination cards. If the vaccination card for a child was available, interviewers copied vaccination information from the cards onto the MICS questionnaire. If no vaccination card was available for the child, the interviewer proceeded to ask the mother to recall whether or not the child had received each of the vaccinations, and for Polio and DPT how many doses were received. The final vaccination coverage estimates are based on both information obtained from the vaccination card and the mother's report of vaccinations received by the child.

**Table CH.1: Vaccinations in first year of life**

Percentage of children age 12-23 months immunized against childhood diseases at any time before the survey and before the first birthday, Somaliland, 2011.

	Vaccinated at any time before the survey according to:			Vaccinated by 12 months of age
	Vaccination card	Mother's report	Either	
BCG <sup>1</sup>	10.0	26.0	36.0	26.8
<b>Polio</b>				
At birth	6.5	10.8	17.3	13.8
1	13.9	31.6	45.5	33.0
2	10.1	26.2	36.2	29.6
3 <sup>2</sup>	6.2	14.4	20.6	16.5
<b>DPT</b>				
1	15.0	24.1	39.1	29.4
2	10.3	15.3	25.7	20.0
3 <sup>3</sup>	6.9	6.6	13.4	10.8
Measles <sup>4</sup>	15.0	22.8	37.8	25.8
All vaccinations	5.0	2.4	7.4	1.5
No vaccinations	0.3	43.0	43.3	43.9
Number of children age 12-23 months	771	771	771	771

<sup>1</sup> MICS indicator 3.1;

<sup>2</sup> MICS indicator 3.2;

<sup>3</sup> MICS indicator 3.3

<sup>4</sup> MICS indicator 3.4; MDG indicator 4.3

The percentage of children age 12 to 23 months who have received each of the specific vaccinations by source of information (vaccination card and mother's recall) is shown in Table CH.1. The denominator for the table is comprised of children age 12-23 months so that only children who are old enough to be fully vaccinated are counted. In the first three columns of the table, the numerator includes all children who were vaccinated at any time before the survey according to the vaccination card or the mother's report. In the last column, only those children who were vaccinated before their first birthday, as recommended, are included. For children without vaccination cards, the proportion of vaccinations given before the first birthday is assumed to be the same as for children with vaccination cards.

About 27 percent of children age 12-23 months received a BCG vaccination by the age of 12 months and the first dose of DPT was given to 29 percent. The percentage declines for subsequent doses of DPT to 20 percent for the second dose, and 11 percent for the third dose (Figure CH.1). Similarly, 33 percent of children received Polio 1 by age 12 months and this declines to about 17 percent by the third dose. The coverage for measles vaccine by 12 months is almost similar to that of BCG vaccine at 26 percent. Almost half of the children (44 percent) did not receive any vaccination by their first birthday (Table CH.1).

The coverage for measles by 12 months is 26 percent; 38 percent of children 12 -23 months had received their measles vaccine at any time before the survey but only 26 percent had received it by their

first birthday. As a result the percentage for children who had all eight recommended vaccinations (excluding polio at birth) by their first birthday is very low at only 2 percent.

**Figure CH.1: Percentage of children aged 12-23 months who received the recommended vaccinations by 12 months, Somaliland, 2011**

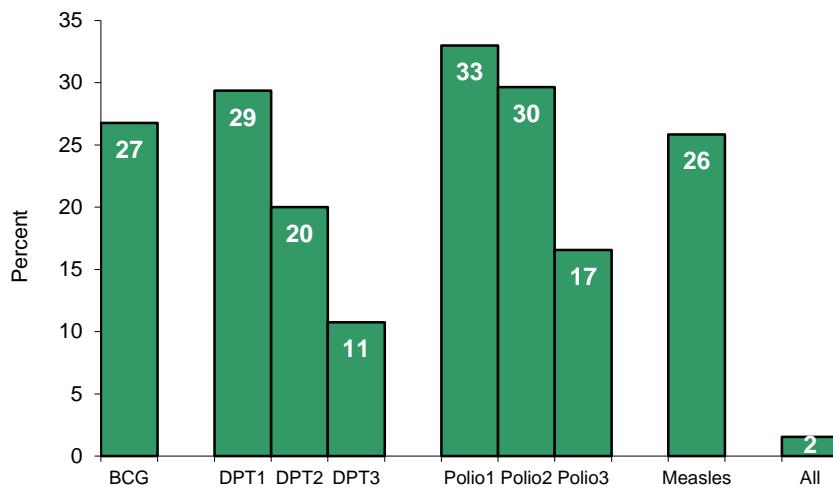


Table CH.2 presents vaccination coverage estimates among children 12-23 months by background characteristics. The figures indicate children receiving the vaccinations at any time up to the date of the survey, and are based on information from both the vaccination cards and mothers'/caretakers' reports. Vaccination cards have been seen by the interviewer for only 20 percent of children. The vaccinations coverage did not vary much between boys and girls. For all vaccines, vaccination coverage was higher in urban areas compared to rural areas. Among the children in the urban areas, 40 percent received BCG and 42 percent received measles vaccination compared to 32 percent in the rural areas who received BCG and 33 percent who received measles vaccines. Vaccination coverage increases with the mothers' education; 43 percent of children born to mothers with primary education have received BCG vaccine compared to 33 percent of mothers with no education.

**Table CH.2: Vaccinations by background characteristics**

Percentage of children age 12-23 months currently vaccinated against childhood diseases, Somaliland, 2011.

	Percentage of children who received:												Percentage with vaccination card seen	Number of children age 12-23 months		
	Polio			DPT			BCG	At birth	1	2	3	Measles	None	All		
	1	2	3	1	2	3										
<b>Sex</b>																
Male	37.5	18.3	46.4	36.1	21.1	39.3	25.2	14.0	39.6	41.0	8.5		21.4	386		
Female	34.5	16.3	44.6	36.3	20.2	38.9	26.1	12.9	36.0	45.6	6.3		19.3	385		
<b>Region</b>																
Maroodijeex/Saaxil	35.7	19.5	42.1	35.4	19.6	37.1	25.2	12.6	37.0	46.5	7.1		16.6	360		
Awdal	37.0	16.1	47.4	42.6	24.8	43.2	30.3	13.1	36.1	39.5	6.8		23.0	119		
Togdheer	41.7	14.2	54.7	36.7	24.8	43.3	25.0	15.0	40.9	35.8	8.6		23.1	161		
Sool	(26.0)	(12.7)	(25.2)	(21.0)	(14.8)	(33.7)	(23.1)	(16.1)	(28.8)	(64.2)	(11.9)		(14.0)	39		
Sanaag	30.4	17.7	48.7	36.8	14.4	36.4	23.8	13.4	41.5	40.2	5.4		29.3	92		
<b>Area</b>																
Urban	40.2	22.3	46.9	38.8	22.8	39.7	29.1	15.8	42.0	42.8	9.1		19.7	396		
Rural	31.7	12.1	44.0	33.5	18.4	38.4	22.1	11.0	33.4	43.9	5.6		21.0	375		
<b>Mother's education<sup>a</sup></b>																
None	33.1	15.7	43.5	33.7	19.0	38.1	24.4	12.2	36.4	44.8	6.2		20.5	605		
Primary	43.0	18.1	52.2	43.1	22.7	40.1	25.2	12.5	37.2	38.8	7.5		17.1	129		
Secondary+	(62.0)	(40.5)	(56.8)	(53.9)	(40.6)	(52.9)	(49.9)	(38.5)	(64.8)	(32.5)	(26.6)		(29.3)	36		
<b>Wealth index quintile</b>																
Poorest	27.2	8.4	34.3	24.4	11.8	31.4	15.3	6.3	25.1	53.9	2.7		16.1	148		
Second	36.6	13.2	47.5	35.1	21.4	42.4	28.4	13.9	38.2	39.8	7.5		22.7	163		
Middle	39.8	18.5	51.2	40.6	21.4	43.6	28.6	15.4	43.0	34.9	7.4		23.9	160		
Fourth	35.2	22.8	46.4	40.2	24.4	38.0	28.1	13.5	41.5	42.2	6.7		18.9	161		
Richest	41.4	24.1	47.5	40.8	24.2	39.7	27.4	18.3	40.9	46.9	13.1		19.7	139		
<b>Total</b>	36.0	17.3	45.5	36.2	20.6	39.1	25.7	13.4	37.8	43.3	7.4		20.3	771		

( ) Figures that are based on 25 - 49 unweighted cases

<sup>a</sup>Total includes 1 unweighted case of child missing information on mother's education that is not shown separately

## **Neonatal Tetanus Protection**

One of the MDGs is to reduce by three quarters the maternal mortality ratio, with one strategy to eliminate maternal tetanus. In addition, another goal is to reduce the incidence of neonatal tetanus to less than 1 case of neonatal tetanus per 1000 live births in every district. A World Fit for Children goal is to eliminate maternal and neonatal tetanus by 2005.

The strategy for preventing maternal and neonatal tetanus is to ensure all pregnant women receive at least two doses of tetanus toxoid vaccine. If a woman has not received at least two doses of tetanus toxoid during a particular pregnancy, she (and her newborn) is also considered to be protected against tetanus if she:

- Received at least two doses of tetanus toxoid vaccine, the last within the previous 3 years;
- Received at least 3 doses, the last within the previous 5 years;
- Received at least 4 doses, the last within the previous 10 years;
- Received 5 or more doses anytime during her life.

To assess the status of tetanus vaccination coverage, women who gave birth during the two years before the survey were asked if they had received tetanus toxoid injections during the pregnancy for their most recent birth, and if so, how many. Women who did not receive two or more tetanus toxoid vaccinations during this pregnancy were then asked about tetanus toxoid vaccinations they may have received prior to this pregnancy. Interviewers also asked women to present their vaccination card, on which dates of tetanus toxoid are recorded and referred to information from the cards when available.

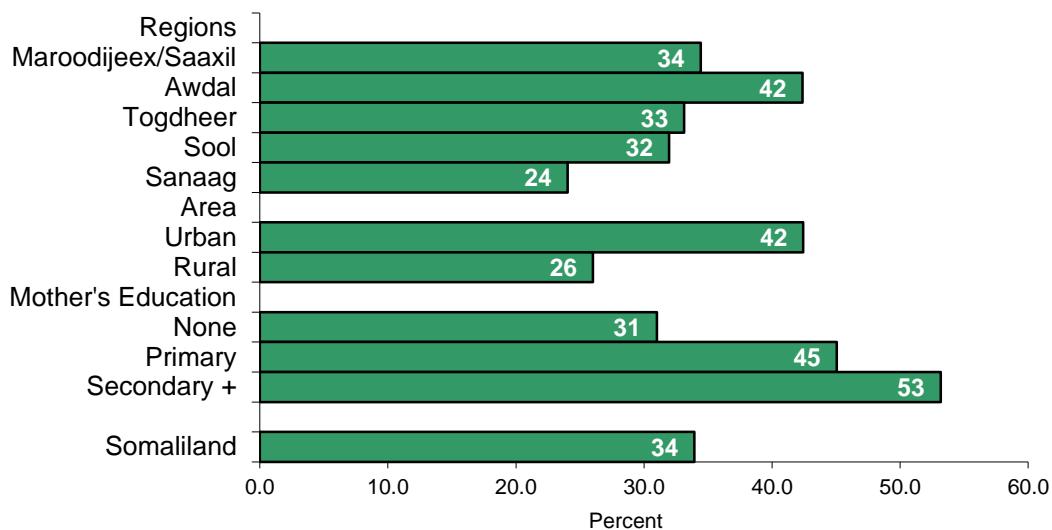
Table CH.3 shows the protection status from tetanus of women who have had a live birth within the last 2 years. Figure CH.2 shows the protection of women against neonatal tetanus by major background characteristics. In Somaliland, 21 percent of women received two doses of tetanus toxoid vaccine during the last pregnancy. A further 11 percent received two doses of the vaccine within the three years prior to the birth. Overall, 34 percent are protected against tetanus in the Zone. As shown in figure CH. 2, a higher percentage of women in the urban areas received protection against tetanus compared to women living in rural areas (42 percent versus 26 percent). Protection against tetanus increased with education with slightly more than half of the women with secondary or higher education having received protection compared to one third of those who had no education.

**Table CH.3: Neonatal tetanus protection**

Percentage of women age 15-49 years with a live birth in the last 2 years protected against neonatal tetanus, Somaliland, 2011

Percentage of women who received at least 2 doses during last pregnancy	Percentage of women who did not receive two or more doses during last pregnancy but received:					Number of women with a live birth in the last 2 years
	2 doses, the last within prior 3 years	3 doses, the last within prior 5 years	4 doses, the last within prior 10 years	5 or more doses during lifetime	Protected against tetanus <sup>1</sup>	
<b>Region</b>						
Maroodijeex/Saaxil	20.1	12.4	1.1	0.7	0.1	34.4
Awdal	31.6	9.1	1.2	0.4	0.0	42.4
Togdheer	20.1	11.5	1.3	0.3	0.0	33.1
Sool	22.6	9.4	0.0	0.0	0.0	32.0
Sanaag	14.0	9.1	0.9	0.0	0.0	24.0
<b>Area</b>						
Urban	26.6	14.0	1.0	0.8	0.1	42.4
Rural	16.3	8.4	1.2	0.1	0.0	26.0
<b>Education</b>						
None	19.0	9.8	1.1	0.5	0.1	30.5
Primary	29.9	14.4	0.4	0.4	0.0	45.0
Secondary+	28.0	21.3	3.9	0.0	0.0	53.2
<b>Wealth index quintile</b>						
Poorest	10.7	5.9	1.0	0.0	0.0	17.6
Second	15.3	9.4	1.3	0.3	0.0	26.3
Middle	26.8	10.9	1.0	0.3	0.0	39.0
Fourth	25.0	15.6	1.2	0.6	0.3	42.8
Richest	30.5	14.3	1.0	1.1	0.0	46.8
Total	21.2	11.1	1.1	0.4	0.1	33.9
<sup>1</sup> MICS indicator 3.7						

**Figure CH.2: Percentage of women with a live birth in the last 12 months who are protected against neonatal tetanus, Somaliland, 2011**



### Oral Rehydration Treatment

Diarrhoea is the second leading cause of death among children under five worldwide. Most diarrhoea-related deaths in children are due to dehydration from loss of large quantities of water and electrolytes from the body in liquid stools. Management of diarrhoea – either through oral rehydration salts (ORS) or a recommended home fluid (RHF) – can prevent many of these deaths. Preventing dehydration and malnutrition by increasing fluid intake and continuing to feed the child are also important strategies for managing diarrhoea.

The goals are to: 1) reduce by one half death due to diarrhoea among children under five by 2010 compared to 2000 (A World Fit for Children); and 2) reduce by two thirds the mortality rate among children under five by 2015 compared to 1990 (Millennium Development Goals). In addition, the World Fit for Children calls for a reduction in the incidence of diarrhoea by 25 percent.

In the MICS, prevalence of diarrhoea was estimated by asking mothers or caretakers whether their child under age five years had an episode of diarrhoea in the two weeks prior to the survey. In cases where mothers reported that the child had diarrhoea, a series of questions were asked about the treatment of the illness, including what the child had to drink and eat during the episode and whether this was more or less than the child usually drinks and eats. The validity of this indicator is affected by the mother's perception of diarrhoea as an illness and her capacity to recall the events. Moreover, the prevalence of diarrhoea varies seasonally. Thus, this variable should be interpreted with caution.

Overall, 13 percent of under five children had diarrhoea in the two weeks preceding the survey (Table CH.4). Diarrhoea prevalence did not vary based on the sex of the child or household wealth index quintiles. It is also similar across regions. The peak of diarrhoea prevalence occurs in the weaning period, among children age 12-23 months.

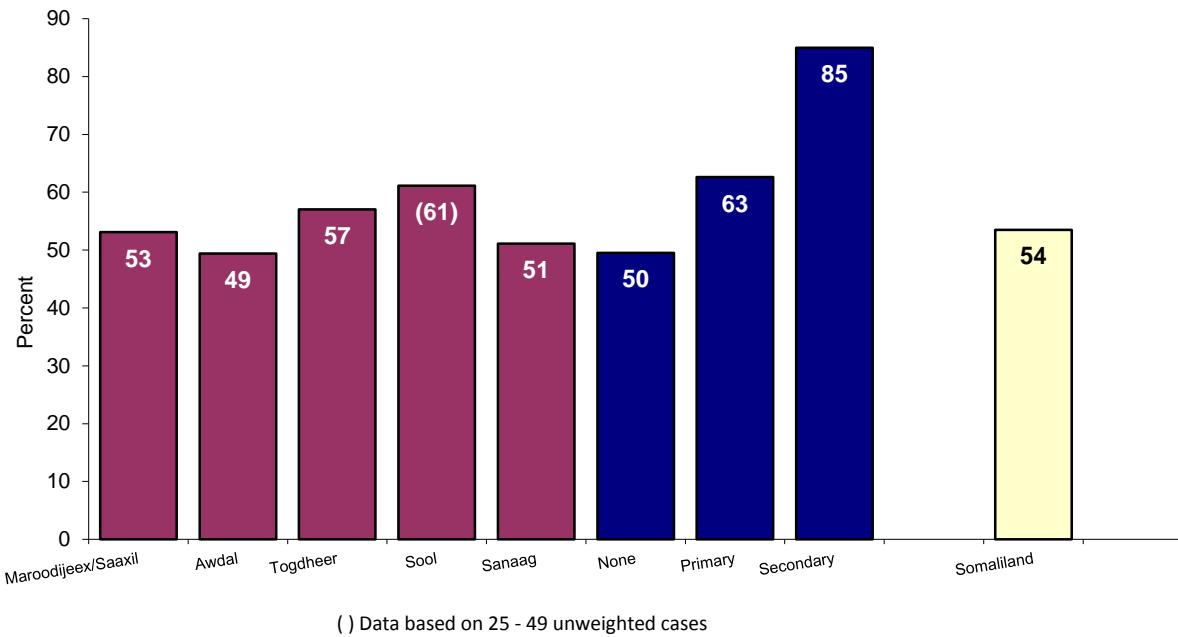
**Table CH.4: Oral rehydration solutions**

Percentage of children age 0-59 months with diarrhoea in the last two weeks, and treatment with oral rehydration solutions, Somaliland, 2011.

	Had diarrhoea in last two weeks	Number of children age 0-59 months	Children with diarrhoea who received ORS (Fluid from ORS packet or pre-packaged ORS fluid)	Number of children age 0-59 months with diarrhoea in last two weeks
<b>Sex</b>				
Male	12.6	2,395	52.0	301
Female	14.1	2,277	54.9	322
<b>Region</b>				
Maroodijeex/Saaxil	13.8	2,074	53.1	285
Awdal	13.8	727	49.4	100
Togdheer	13.5	948	57.1	128
Sool	12.7	262	(61.1)	33
Sanaag	11.4	661	51.1	76
<b>Area</b>				
Urban	14.4	2,256	60.9	325
Rural	12.3	2,416	45.4	298
<b>Age</b>				
0-11 months	17.1	933	60.4	160
12-23 months	21.6	771	54.0	166
24-35 months	13.5	987	56.9	133
36-47 months	9.2	1,067	48.7	98
48-59 months	7.1	914	35.8	65
<b>Mother's education<sup>a</sup></b>				
None	12.8	3,745	49.5	478
Primary	16.7	709	62.6	118
Secondary+	12.1	217	(85.0)	26
<b>Wealth index quintile</b>				
Poorest	13.1	995	38.2	130
Second	12.4	1,055	51.9	131
Middle	13.5	940	53.4	127
Fourth	15.5	916	61.3	142
Richest	12.1	766	65.5	93
<b>Total</b>	<b>13.3</b>	<b>4,672</b>	<b>53.5</b>	<b>623</b>
() Figures that are based on 25-49 unweighted cases				
<sup>a</sup> Total includes 2 unweighted cases of children missing information on mother's education that is not shown separately				

Table CH.4 also shows the percentage of children receiving oral rehydration solutions. About half (54 percent) received fluids from ORS packets or pre-packaged ORS fluids. Treatment with oral rehydration solution increased with mother's education and household wealth. The percentage of children with diarrhoea who received oral rehydration solutions varies slightly across regions (Figure CH.3).

**Figure CH.3: Percentage of children under age 5 with diarrhoea who received oral rehydration solution, Somaliland, 2011**



Only 8 percent of under five children with diarrhoea drank more than usual while another 14 percent drank about the same (Table CH.5). Twenty two percent of children who were given somewhat less to eat, 4 percent were given more to eat (continued feeding) and 40 percent were given much less food during episodes of diarrhoea while 10 percent of the children were not given food. A higher percentage of children aged 48-59 months were given much less to eat compared with those of other younger age categories. Feeding during diarrhoea was stopped for a higher percentage of children in the rural areas (12 percent) compared to the urban areas (8 percent). The drinking practices varied with the household wealth index quintiles with more than half of those in the poorest and the second poorest wealth index quintiles given much less to drink.

**Table CH.5: Feeding practices during diarrhoea**

Percent distribution of children age 0-59 months with diarrhoea in the last two weeks by amount of liquids and food given during episode of diarrhoea, Somaliland, 2011

	Had diarrhoea in last two weeks	Number of children age 0-59 months	Drinking practices during diarrhoea:							Eating practices during diarrhoea:							Number of children age 0-59 months with diarrhoea in last two weeks
			Given much less to drink	Given somewhat less to drink	Given the same to drink	Given more to drink	Given nothing to drink	Missing/DK	Total	Given much less to eat	Given somewhat less to eat	Given the same to eat	Given more to eat	Stopped food	Had never been given food	Missing/DK	
<b>Sex</b>																	
Male	12.6	2,395	43.1	28.5	14.1	9.7	2.3	2.4	100.0	36.9	24.2	12.4	5.1	8.3	12.2	1.0	100.0
Female	14.1	2,277	47.8	26.4	13.4	6.8	5.0	0.6	100.0	42.3	20.5	11.1	3.4	11.0	11.3	0.3	100.0
<b>Region</b>																	
Maroodijeeb/ Saaxil	13.8	2,074	46.9	26.1	11.7	8.7	5.5	1.0	100.0	41.4	21.7	10.3	4.1	6.9	14.8	0.7	100.0
Awdal	13.8	727	52.8	21.0	19.2	5.0	1.0	1.0	100.0	44.9	27.1	13.0	2.0	7.0	6.0	0.0	100.0
Togdheer	13.5	948	46.6	26.8	12.5	8.6	2.3	3.2	100.0	38.6	19.7	13.4	4.0	14.9	8.6	0.8	100.0
Sool	12.7	262	(8.2)	(63.6)	(15.8)	(10.0)	(2.4)	(0.0)	100.0	(11.6)	(32.2)	(19.8)	(9.1)	(11.6)	(15.8)	(0.0)	100.0
Sanaag	11.4	661	45.0	26.2	15.3	9.1	2.9	1.5	100.0	40.6	18.2	8.8	5.5	14.2	11.2	1.5	100.0
<b>Area</b>																	
Urban	14.4	2,256	46.5	28.2	11.8	8.2	4.1	1.2	100.0	42.1	21.1	11.1	3.8	7.9	13.4	0.6	100.0
Rural	12.3	2,416	44.4	26.6	15.9	8.1	3.2	1.8	100.0	37.1	23.6	12.3	4.6	11.7	9.9	0.7	100.0
<b>Age</b>																	
0-11 months	17.1	933	41.9	27.0	15.0	8.1	6.1	1.9	100.0	39.8	19.3	10.6	3.7	3.8	21.5	1.3	100.0
12-23 months	21.6	771	45.2	30.4	12.5	7.0	3.1	1.8	100.0	37.8	20.5	12.3	4.1	11.5	13.2	0.6	100.0
24-35 months	13.5	987	44.6	28.6	13.8	9.2	2.2	1.5	100.0	38.7	24.8	12.1	7.7	13.0	3.8	0.0	100.0
36-47 months	9.2	1,067	51.6	21.7	11.3	10.2	5.1	0.0	100.0	36.7	30.6	11.4	1.0	12.3	6.9	1.0	100.0
48-59 months	7.1	914	47.8	27.3	17.2	6.1	0.0	1.6	100.0	50.8	16.7	12.6	3.1	9.2	7.6	0.0	100.0
<b>Mother's education<sup>a</sup></b>																	
None	12.8	3,745	44.9	27.4	15.0	7.7	3.5	1.5	100.0	39.2	21.3	12.8	4.2	9.7	12.2	0.6	100.0
Primary	16.7	709	43.5	29.4	10.2	10.1	5.1	1.7	100.0	40.0	25.5	9.1	4.1	10.5	10.0	0.8	100.0
Secondary+	12.1	217	(66.8)	(18.5)	(7.4)	(7.4)	(0.0)	(0.0)	100.0	(47.9)	(26.1)	(3.7)	(3.7)	(7.6)	(11.1)	(0.0)	100.0
<b>Wealth index quintile</b>																	
Poorest	13.1	995	52.6	19.1	15.4	4.0	6.4	2.4	100.0	41.4	19.2	12.9	3.1	10.5	12.0	0.9	100.0
Second	12.4	1,055	50.9	22.7	14.9	7.8	2.1	1.6	100.0	41.8	18.7	13.2	4.7	10.8	10.0	0.8	100.0
Middle	13.5	940	43.0	34.6	9.6	9.7	1.5	1.5	100.0	28.2	31.7	8.4	5.7	13.6	11.6	0.8	100.0
Fourth	15.5	916	39.0	31.9	15.6	9.5	4.1	0.0	100.0	44.3	18.3	13.7	2.8	7.6	13.3	0.0	100.0
Richest	12.1	766	41.5	29.1	12.7	10.4	4.2	2.1	100.0	42.9	25.0	9.4	5.1	5.1	11.5	1.0	100.0
<b>Total</b>	<b>13.3</b>	<b>4,672</b>	<b>45.5</b>	<b>27.4</b>	<b>13.7</b>	<b>8.2</b>	<b>3.7</b>	<b>1.5</b>	<b>100.0</b>	<b>39.7</b>	<b>22.3</b>	<b>11.7</b>	<b>4.2</b>	<b>9.7</b>	<b>11.7</b>	<b>0.7</b>	<b>100.0</b>
() Figures that are based on 25-49 unweighted cases																	
<sup>a</sup> Total includes 2 unweighted cases of missing information on mothers education who are not shown separately																	

Table CH.6 provides the proportion of children age 0-59 months with diarrhoea in the last two weeks who received oral rehydration therapy with continued feeding, and percentage of children with diarrhoea who received other treatments. Overall, 57 percent of children with diarrhoea received ORS or increased fluids. Combining the information in Table CH.5 with those in Table CH.4 on oral rehydration therapy, it is observed that 20 percent of children either received ORT and, at the same time, feeding was continued, as is the recommendation. Regional disparities exist in the home management of diarrhoea.

In Awdal, Maroodijeex/Saaxil and Sanaag regions, only 18 percent of the children received ORT and continued feeding, while the percentages are 23 and 37 in Togdheer and Sool (the figures are based on less than 50 unweighted cases and need to be interpreted with caution) respectively (Figure CH.4). The percentage of ORT and continued feeding was lowest for older children (48-59 months old; 9 percent) compared to those of other age categories. Although it is not the recommended treatment for childhood diarrhoea, one out of five children with diarrhoea received antibiotics and a further 17 percent were given anti-motility treatments. On the other hand, zinc treatment which is recommended for decreasing the intensity and frequency of diarrhoea was given in less than 1 percent of the cases.

**Table CH.6: Oral rehydration therapy with continued feeding and other treatments**

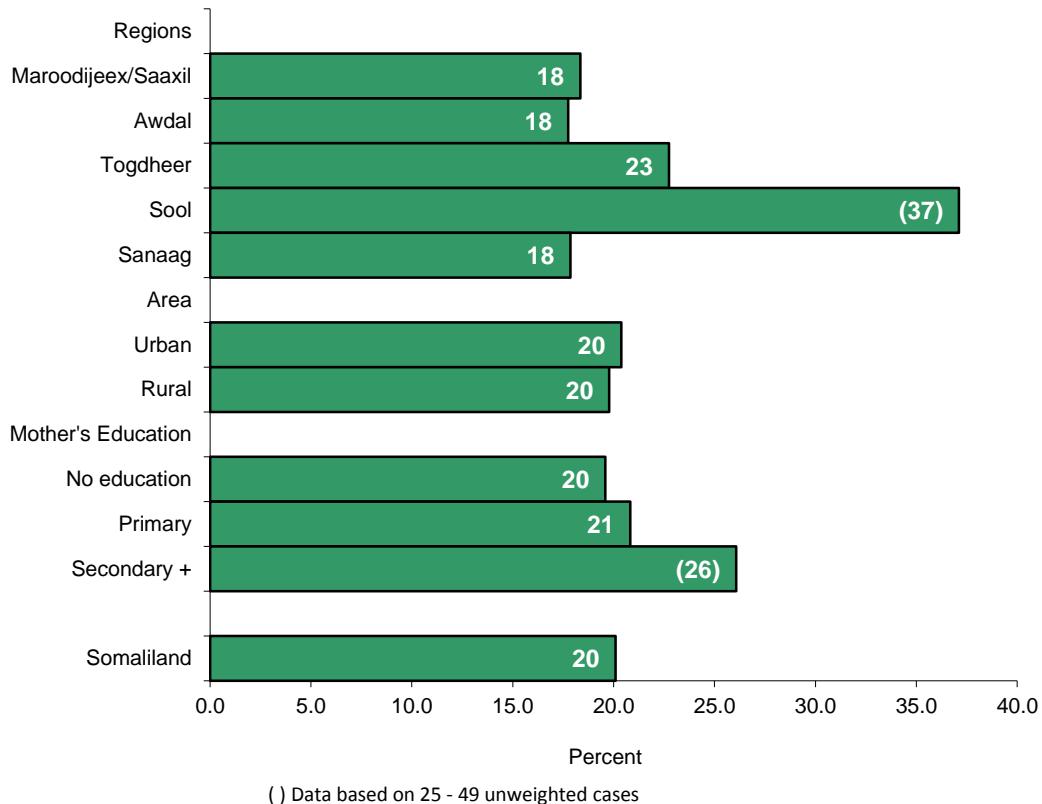
Percentage of children age 0-59 months with diarrhoea in the last two weeks who received oral rehydration therapy with continued feeding, and percentage of children with diarrhoea who received other treatments, Somaliland, 2011

	ORT (ORS or increased fluids)	ORT with continued feeding <sup>1</sup>	Other treatments:										Number of children age 0-59 months with diarrhoea in last two weeks		
			Pill or syrup					Injection							
			Anti-biotic	Anti-motility	Zinc	Other	Un known	Anti-biotic	Non-antibiotic	Un known	Intra-venous	Home remedy, herbal medicine	Other		
<b>Sex</b>															
Male	56.7	23.5	18.5	17.7	0.4	0.3	6.9	1.3	0.6	0.0	1.0	1.3	4.1	29.6	301
Female	56.7	16.9	20.7	16.3	1.2	0.0	5.5	1.2	0.0	0.9	0.6	0.9	4.9	29.5	322
<b>Region</b>															
Maroodijeex/Saaxil	56.2	18.3	18.8	19.6	0.3	0.3	5.1	1.4	0.3	1.0	1.0	1.4	4.1	27.4	285
Awdal	50.4	17.8	12.8	18.4	1.0	0.0	12.0	3.0	1.0	0.0	0.0	1.0	6.0	34.7	100
Togdheer	61.8	22.7	24.5	15.6	0.8	0.0	5.4	0.8	0.0	0.0	1.5	0.8	3.9	29.5	128
Sool	(64.4)	(37.1)	(50.4)	(5.8)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(23.1)	33
Sanaag	55.1	17.9	10.4	12.3	2.5	0.0	6.5	0.0	0.0	0.0	0.0	1.5	6.9	33.9	76
<b>Area</b>															
Urban	64.4	20.4	23.8	23.2	0.5	0.3	7.1	1.5	0.6	0.9	1.5	1.2	4.7	19.3	325
Rural	48.3	19.8	15.2	10.2	1.1	0.0	5.3	1.0	0.0	0.0	0.0	1.1	4.3	40.8	298
<b>Age</b>															
0-11 months	62.9	17.9	19.4	20.1	1.2	0.0	4.3	2.5	0.6	0.0	1.2	0.0	3.8	29.2	160
12-23 months	58.1	19.1	20.7	16.8	0.0	0.0	7.6	1.8	0.0	1.2	1.2	2.4	4.2	26.7	166
24-35 months	60.7	26.9	22.9	16.9	0.0	0.7	6.7	0.0	0.0	0.7	0.7	1.5	4.5	25.6	133
36-47 months	51.8	23.5	19.0	15.2	1.0	0.0	7.3	1.0	1.0	0.0	0.0	1.1	7.1	28.9	98
48-59 months	37.4	9.1	12.3	12.6	3.1	0.0	4.5	0.0	0.0	0.0	0.0	0.0	3.1	46.9	65
<b>Mother's education</b>															
None	52.9	19.6	19.2	16.4	0.8	0.2	5.0	1.1	0.4	0.6	0.6	1.3	4.1	33.6	478
Primary	65.1	20.8	21.1	19.8	0.9	0.0	9.8	2.5	0.0	0.0	1.6	0.8	5.7	19.1	118
Secondary+	(88.7)	(26.1)	(21.8)	(15.0)	(0.0)	(0.0)	(11.3)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(7.4)	(3.7)	26
<b>Wealth index quintile</b>															
Poorest	39.7	13.5	12.7	7.9	0.8	0.0	3.2	0.8	0.0	0.0	0.0	0.8	4.0	49.7	130
Second	54.3	16.4	13.5	14.0	0.0	0.0	3.9	2.3	0.0	0.0	0.0	0.8	4.7	34.9	131
Middle	58.3	29.9	21.3	16.7	0.0	0.0	8.7	0.8	1.5	0.0	0.0	1.6	3.2	29.1	127
Fourth	65.3	20.4	24.1	25.8	2.0	0.0	9.4	2.0	0.0	2.0	2.0	1.4	3.4	15.1	142
Richest	68.7	20.7	29.1	20.7	1.2	1.0	5.2	0.0	0.0	0.0	2.1	1.0	8.4	16.7	93
Total	56.7	20.1	19.7	17.0	0.8	0.2	6.2	1.3	0.3	0.5	0.8	1.1	4.5	29.6	623

<sup>1</sup>MICS Indicator 3.8

( ) Figures that are based on 25-49 unweighted cases

**Figure CH.4: Percentage of children under age 5 with diarrhoea who received ORT and continued feeding Somaliland, 2011**



### **Care Seeking and Antibiotic Treatment of Pneumonia**

Pneumonia is the leading cause of death in children and the use of antibiotics in under-5s with suspected pneumonia is a key intervention. A World Fit for Children goal is to reduce by one-third the deaths due to acute respiratory infections.

In the Somaliland MICS, the prevalence of suspected pneumonia was estimated by asking mothers or caretakers whether their child under age five had an illness with a cough accompanied by rapid or difficult breathing, and whose symptoms were due to a problem in the chest or both a problem in the chest and a blocked nose. These data are based on the mother's perception of illness and not validated by a medical examination. Moreover, the prevalence of pneumonia varies seasonally. Thus, this variable should be interpreted with caution as it may be subject to considerable bias

**Table CH.7: Care seeking for suspected pneumonia and antibiotic use during suspected pneumonia**

Percentage of children age 0-59 months with suspected pneumonia in the last two weeks who were taken to a health provider and percentage of children who were given antibiotics, Somaliland, 2011

Had suspected pneumonia in the last two weeks	Number of children age 0-59 months	Children with suspected pneumonia who were taken to:												Percentage of children with suspected pneumonia who received antibiotics in the last two weeks <sup>2</sup>	Number of children age 0-59 months with suspected pneumonia in the last two weeks		
		Public sources						Private sources				Other source					
		Govt. hosp.	Govt. health centre	Govt. health post	Village health worker	Other public	Private hosp./clinic	Private physician	Private pharmacy	Mobile clinic	Other private	Trad. Practitioner	Any appropriate provider <sup>1</sup>				
<b>Sex</b>																	
Male	6.3	2,395	7.2	2.6	4.7	0.7	0.6	9.1	8.3	19.0	0.6	0.7	0.7	2.8	33.1	56.2	152
Female	5.1	2,277	5.9	5.9	1.7	2.7	0.0	5.1	7.6	20.8	0.0	0.0	1.8	0.0	28.1	48.2	115
<b>Region</b>																	
Maroodijeex/Saaxil	6.1	2,074	10.0	6.2	0.8	1.6	0.8	9.3	13.8	17.1	0.0	0.8	0.8	2.4	42.6	59.0	126
Awdal	2.7	727	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	20
Togdheer	6.9	948	4.5	1.6	3.0	1.6	0.0	6.1	1.5	28.8	0.0	0.0	3.1	0.0	16.7	54.8	65
Sool	4.2	262	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	11
Sanaag	6.7	661	(2.5)	(0.0)	(5.0)	(2.5)	(0.0)	(2.5)	(0.0)	(14.2)	(0.0)	(0.0)	(0.0)	(2.5)	(10.0)	(28.6)	44
<b>Area</b>																	
Urban	5.9	2,256	10.2	5.7	4.4	0.0	0.7	10.9	15.3	25.5	0.7	0.0	0.0	0.0	47.2	70.4	133
Rural	5.5	2,416	3.1	2.3	2.4	3.1	0.0	3.9	0.8	14.1	0.0	0.8	2.3	3.1	14.9	35.2	134
<b>Age</b>																	
0-11 months	4.6	933	(13.9)	(2.3)	(9.5)	(2.6)	(0.0)	(11.6)	(11.3)	(14.1)	(0.0)	(0.0)	(4.8)	(0.0)	(46.4)	(60.4)	43
12-23 months	5.0	771	(2.5)	(9.9)	(0.0)	(0.0)	(0.0)	(17.7)	(9.9)	(20.4)	(0.0)	(0.0)	(0.0)	(2.6)	(37.4)	(55.6)	39
24-35 months	6.3	987	7.8	1.5	4.6	1.6	0.0	4.7	7.7	23.3	1.5	0.0	0.0	0.0	29.7	52.8	63
36-47 months	6.6	1,067	7.0	5.6	1.4	1.5	1.4	2.7	9.7	18.7	0.0	0.0	0.0	1.5	29.2	55.4	71
48-59 months	5.7	914	1.9	1.9	2.1	2.0	0.0	5.7	1.9	21.4	0.0	2.0	2.0	4.1	17.4	40.7	52
<b>Mother's education<sup>a</sup></b>																	
None	5.8	3,745	5.9	3.6	2.7	1.4	0.4	6.4	6.3	18.5	0.4	0.0	1.4	1.9	26.3	46.8	216
Primary	5.3	709	(7.9)	(5.3)	(2.6)	(3.0)	(0.0)	(7.8)	(12.9)	(28.3)	(0.0)	(0.0)	(0.0)	(0.0)	(39.5)	(76.3)	37
Secondary	5.5	217	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	12
<b>Wealth index quintile</b>																	
Poorest	5.5	995	1.9	0.0	2.0	0.0	0.0	2.0	1.9	13.1	0.0	0.0	5.7	5.8	7.9	36.3	54
Second	6.3	1,055	3.0	1.6	1.6	4.7	1.5	6.1	2.9	12.2	1.5	1.6	0.0	1.6	22.9	38.3	66
Middle	7.4	940	7.0	5.5	4.2	1.6	0.0	5.7	7.0	22.1	0.0	0.0	0.0	0.0	31.0	47.7	69
Fourth	4.9	916	15.4	8.6	6.7	0.0	0.0	10.7	10.7	38.5	0.0	0.0	0.0	0.0	47.5	80.8	45
Richest	4.2	766	(9.1)	(6.1)	(3.0)	(0.0)	(0.0)	(18.2)	(27.3)	(15.2)	(0.0)	(0.0)	(0.0)	(0.0)	(63.7)	(81.9)	32
Total	5.7	4,672	6.7	4.0	3.4	1.6	0.4	7.4	8.0	19.8	0.4	0.4	1.2	1.6	31.0	52.8	267

<sup>1</sup> MICS indicator 3.9

<sup>2</sup> MICS indicator 3.10

(\*) Figures that are based on less than 25 unweighted cases

( ) Figures that are based on 25-49 unweighted cases

<sup>a</sup>Total includes 2 unweighted cases of children missing information on mothers education who are not shown separately

There were no cases of mobile/outreach clinic or relative/friend thus they are not shown in the table

Table CH.7 presents the prevalence of suspected pneumonia and if care was sought outside the home, the site of care. Six percent of children age 0-59 months was reported to have had symptoms of pneumonia during the two weeks preceding the survey. Of these children, 31 percent were taken to an appropriate provider. An equal percentage of children (7 percent) with suspected pneumonia were taken to either government hospitals and private hospitals or clinics. One in ten of the children with suspected pneumonia living in the urban areas were taken to the government hospital for treatment compared to one in thirty three of those living in rural areas.

Table CH.7 also presents the use of antibiotics for the treatment of suspected pneumonia in under-5s by sex, age, region, area, and socioeconomic factors. In Somaliland, 53 percent of under-five children with suspected pneumonia had received an antibiotic during the two weeks prior to the survey. The percentage was double in urban compared to rural areas: 70 percent versus 35 percent. The table also shows that antibiotic treatment of suspected pneumonia is lowest among the poorest households. The use of antibiotics decreases as children get older.

Issues related to knowledge of danger signs of pneumonia are presented in Table CH.8. Obviously, mothers' knowledge of the danger signs is an important determinant of care-seeking behaviour. Overall, 8 percent of women know of the two danger signs of pneumonia – fast and difficult breathing. The most commonly identified symptom for taking a child to a health facility is if the child becomes sicker. Twenty three percent of mothers identified fast breathing and 20 percent of mothers identified difficult breathing as symptoms for taking children immediately to a health care provider. Twice as many mothers in the urban areas recognised the two danger signs of pneumonia compared to those in the rural areas. Recognising of the two danger signs of pneumonia increased with wealth index quintile from 5 percent among the poorest to 11 percent among the richest.

**Table CH.8: Knowledge of the two danger signs of pneumonia**

Percentage of mothers and caretakers of children age 0-59 months by symptoms that would cause to take the child immediately to a health facility, and percentage of mothers who recognize fast and difficult breathing as signs for seeking care immediately, Somaliland, 2011

	Percentage of mothers/caretakers of children age 0-59 months who think that a child should be taken immediately to a health facility if the child:								Mothers/care takers who recognize the two danger signs of pneumonia	Number of mothers/care takers of children age 0-59 months
	Is not able to drink or breast feed	Becomes sicker	Develops a fever	Has fast breathing	Has difficulty breathing	Has blood in stool	Is drinking poorly	Has other symptoms		
<b>Region</b>										
Maroodijeex/Saaxil	23.8	41.9	43.1	23.6	21.6	15.1	16.7	6.7	9.9	1,105
Awdal	27.8	41.7	43.3	19.8	17.2	15.3	14.4	7.9	7.5	388
Togdheer	22.1	42.1	32.8	21.6	17.3	12.9	12.4	7.6	5.5	497
Sool	19.9	34.4	40.6	21.1	22.9	9.6	12.6	7.7	6.4	144
Sanaag	34.2	42.9	35.8	26.1	22.6	8.7	19.3	9.7	5.9	346
<b>Area</b>										
Urban	25.3	41.2	41.4	24.4	21.6	15.5	17.9	7.6	10.2	1,171
Rural	25.3	42.0	38.5	21.4	19.1	11.7	13.5	7.5	5.8	1,309
<b>Mother's education</b>										
None	24.9	40.9	38.5	21.7	19.5	12.8	14.5	7.6	6.4	1,981
Primary	24.9	43.4	45.2	27.2	23.2	16.4	20.6	7.3	14.0	373
Secondary+	32.3	47.6	46.7	27.1	23.4	15.5	17.8	7.1	13.1	125
<b>Wealth index quintile</b>										
Poorest	25.0	45.4	36.9	20.9	17.6	12.2	11.6	8.5	4.8	525
Second	24.0	39.9	36.9	23.0	18.1	11.7	13.5	7.9	7.0	563
Middle	24.1	39.3	36.3	22.7	23.4	14.0	16.6	7.8	7.7	500
Fourth	26.7	43.2	43.5	25.3	21.5	14.3	16.9	7.0	9.9	485
Richest	27.2	40.2	48.2	22.3	21.4	15.9	20.8	6.1	10.8	407
<b>Total</b>	<b>25.3</b>	<b>41.6</b>	<b>39.9</b>	<b>22.8</b>	<b>20.3</b>	<b>13.5</b>	<b>15.6</b>	<b>7.5</b>	<b>7.9</b>	<b>2,480</b>

### Solid Fuel Use

More than 3 billion people around the world rely on solid fuels for their basic energy needs, including cooking and heating. Solid fuels include biomass fuels, such as wood, charcoal, crops or other agricultural waste, dung, shrubs and straw. Cooking and heating with solid fuels leads to high levels of indoor smoke which contains a complex mix of health-damaging pollutants. The main problem with the use of solid fuels is their incomplete combustion, which produces toxic elements such as carbon monoxide, polycyclic aromatic hydrocarbons, and sulphur dioxide ( $SO_2$ ), among others. Use of solid fuels increases the risks of contracting acute respiratory illness, pneumonia, chronic obstructive lung disease, cancer, and possibly tuberculosis, asthma, or cataracts, and may contribute to low birth weight of babies born to pregnant women exposed to smoke. The primary indicator for monitoring use of solid fuels is the proportion of the population using solid fuels as the primary source of domestic energy for cooking, shown in Table CH.9.

**Table CH.9: Solid fuel use**

Percent distribution of household members according to type of cooking fuel used by the household, and percentage of household members living in households using solid fuels for cooking, Somaliland, 2011

	Percentage of household members in households using:									Number of household members	
	Electricity	Liquefied Petroleum Gas (LPG)	Kerosene	Char-coal	Wood	Straw, shrubs, grass	No food cooked in the household	Missing	Total		
									Solid fuels for cooking <sup>1</sup>		
<b>Region</b>											
Maroodijeex/Saaxil	1.7	0.6	0.5	72.6	23.9	0.4	0.1	0.2	100.0	97.0	14,588
Awdal	0.2	0.0	0.2	51.0	48.0	0.7	0.0	0.0	100.0	99.6	4,612
Togdheer	0.0	0.0	0.0	41.5	57.8	0.2	0.0	0.6	100.0	99.4	5,753
Sool	0.0	0.0	0.0	38.6	59.9	0.3	0.0	1.2	100.0	98.8	1,708
Sanaag	0.0	0.0	0.0	26.8	72.3	0.7	0.1	0.1	100.0	99.7	3,959
<b>Area</b>											
Urban	1.6	0.6	0.4	89.6	7.7	0.0	0.0	0.1	100.0	97.3	16,146
Rural	0.0	0.0	0.1	17.8	80.7	0.9	0.1	0.4	100.0	99.4	14,473
<b>Education of household head</b>											
None	0.7	0.0	0.3	48.0	50.1	0.6	0.0	0.2	100.0	98.7	20,527
Primary	0.8	0.0	0.0	63.2	35.0	0.2	0.0	0.8	100.0	98.3	4,089
Secondary	1.4	1.6	0.2	81.2	15.1	0.3	0.1	0.2	100.0	96.6	5,149
Missing/DK	0.0	0.0	0.0	51.1	48.9	0.0	0.0	0.0	100.0	100.0	854
<b>Wealth index quintiles</b>											
Poorest	0.0	0.0	0.0	0.3	98.6	0.9	0.1	0.2	100.0	99.7	6,124
Second	0.0	0.0	0.7	16.9	81.5	0.9	0.1	0.0	100.0	99.3	6,125
Middle	0.0	0.1	0.6	68.6	29.2	0.3	0.0	1.1	100.0	98.1	6,120
Fourth	1.8	0.0	0.0	96.4	1.6	0.2	0.1	0.0	100.0	98.1	6,124
Richest	2.4	1.4	0.0	96.2	0.0	0.0	0.0	0.0	100.0	96.2	6,125
Total	0.8	0.3	0.3	55.7	42.2	0.4	0.1	0.3	100.0	98.3	30,619

<sup>1</sup> MICS indicator 3.11.

Overall, almost all (98 percent) of all households in Somaliland are using solid fuels for cooking. The table also clearly shows that use of charcoal is the highest contributor to solid fuels for cooking.

Solid fuel use by place of cooking is depicted in Table CH.10. The presence and extent of indoor pollution are dependent on cooking practices, places used for cooking, as well as types of fuel used. According to the Somaliland MICS, 63 percent of households cook in a separate room used as a kitchen. The percentage of households that cook within the dwelling unit in a separate room used as kitchen is higher in urban areas (82 percent) than in rural areas (42 percent). Twenty one percent cooked outdoors. The higher the level of education of the household head or the wealth status of the household, the lower the percentage of households cooking outdoors.

**Table CH.10: Solid fuel use by place of cooking**

Percent distribution of household members in households using solid fuels by place of cooking, Somaliland, 2011

	Place of cooking:						Number of household members in households using solid fuels for cooking	
	In a separate room used as kitchen	Elsewhere in the house	In a separate building	Outdoors	Other	Missing		
<b>Region</b>								
Maroodijeex/Saaxil	70.6	10.3	3.2	15.0	0.1	0.7	100.0	14,147
Awdal	61.8	7.6	5.5	24.2	0.0	0.9	100.0	4,595
Togdheer	62.3	8.7	7.7	20.4	0.1	0.7	100.0	5,720
Sool	39.3	8.7	10.6	40.9	0.0	0.5	100.0	1,688
Sanaag	48.2	12.0	7.1	31.9	0.1	0.5	100.0	3,948
<b>Area</b>								
Urban	82.0	8.9	3.1	5.4	0.1	0.5	100.0	15,712
Rural	42.2	10.6	7.8	38.3	0.1	0.9	100.0	14,385
<b>Education of household head</b>								
None	57.3	10.3	5.6	25.9	0.1	0.8	100.0	20,251
Primary	64.5	11.4	7.3	15.9	0.1	0.7	100.0	4,021
Secondary+	84.2	5.8	3.0	6.5	0.1	0.5	100.0	4,972
Missing/DK	67.5	11.2	5.0	16.3	0.0	0.0	100.0	854
<b>Wealth index quintiles</b>								
Poorest	27.3	9.2	6.8	55.3	0.0	1.3	100.0	6,109
Second	47.9	11.2	9.0	31.1	0.1	0.7	100.0	6,081
Middle	57.6	17.3	8.6	15.5	0.2	0.6	100.0	6,006
Fourth	87.1	8.4	1.6	2.4	0.0	0.5	100.0	6,007
Richest	96.6	2.5	0.4	0.2	0.0	0.3	100.0	5,894
<b>Total</b>	<b>63.0</b>	<b>9.7</b>	<b>5.3</b>	<b>21.1</b>	<b>0.1</b>	<b>0.7</b>	<b>100.0</b>	<b>30,098</b>

## Malaria

Malaria is a leading cause of death of children under age five in Africa. It also contributes to anaemia in children and is a common cause of school absenteeism. Preventive measures can dramatically reduce malaria mortality rates among children.

WHO recommends full coverage of long lasting insecticide treated nets LLINs for all people at risk of malaria in areas targeted for malaria prevention. Neither LLINs nor indoor residual spraying (IRS), the other main method of malaria vector control, may be sufficiently effective alone to achieve and maintain interruption of transmission in holo-endemic areas of Africa.

In 2010 WHO recommended universal use of diagnostic testing to confirm malaria infection, followed by appropriate treatment based on the results. According to the new guidelines, treatment solely on the basis of clinical suspicion should only be considered when a parasitological diagnosis is not accessible. Diagnosis is increasingly important, not only to have certainty about malaria cases but also to avoid unnecessary consumption of effective antimalarial drugs, such as artemisinin combination therapies (ACTs), which increases the risk of malaria parasite resistance

Insecticide-treated mosquito nets, or ITNs, if used properly, are very effective in offering protection against mosquitos and other insects. The use of ITNs is one of the main health interventions applied to reduce malaria transmission in Somaliland. The questionnaire incorporates questions on the availability and use of bed nets, both at household level and among children under five years of age and pregnant women. In addition, all households in the Somaliland MICS were asked whether the interior dwelling walls were sprayed with an insecticide to kill mosquitoes that spread malaria during the 12 months preceding the survey.

In Somaliland the survey results indicate that 35 percent of households have at least one mosquito net (Table CH.11). Thirty five percent of the households had at least one ITN. Further another 37 percent had at least one ITN or received Indoor Residual Spraying (IRS) in the last 12 months. Ownership of ITN was lowest in Sool and Maroodijeex/Saaxil regions as well as households whose head had no education and the poorest households.

**Table CH.11: Household availability of insecticide treated nets and protection by a vector control method**

Percentage of households with at least one mosquito net, percentage of households with at least one long-lasting treated net, percentage of households with at least one insecticide treated net (ITN) and percentage of households which either have at least one ITN or have received indoor residual spraying (IRS) in the last 12 months, Somaliland , 2011

	Percentage of households with at least one mosquito net	Percentage of households with at least one long-lasting treated net	Percentage of households with at least one ITN <sup>1</sup>	Percentage of households with at least one ITN or received IRS during the last 12 months <sup>2</sup>	Number of households
<b>Region</b>					
Maroodijeex/Saaxil	31.0	27.5	28.3	30.8	2,176
Awdal	45.1	39.5	40.7	41.8	726
Togdheer	54.7	47.8	48.9	49.5	953
Sool	31.9	27.8	28.7	29.3	289
Sanaag	36.6	33.7	34.3	34.7	677
<b>Area</b>					
Urban	37.3	33.0	33.9	36.8	2,281
Rural	39.9	35.4	36.2	36.4	2,539
<b>Education of household head</b>					
None	34.5	30.7	31.6	32.8	3,334
Primary	46.3	41.3	42.0	44.0	637
Secondary+	48.1	42.3	43.1	45.8	721
Missing/DK	53.7	46.7	48.2	48.2	128
<b>Wealth index quintiles</b>					
Poorest	27.4	23.2	24.0	24.1	1,074
Second	44.8	40.2	41.4	41.8	1,079
Middle	40.1	35.5	36.4	37.2	993
Fourth	40.0	36.0	36.8	39.0	859
Richest	41.9	37.5	38.2	43.0	815
Total	38.6	34.2	35.1	36.6	4,820

<sup>1</sup> MICS indicator 3.12

<sup>2</sup> MICS indicator 3.13

Results indicate that 24 percent of children under the age of five slept under any mosquito net the night prior to the survey and 22 percent slept under an insecticide treated net (Table CH.12). There were no gender disparities in ITN use among children under five. The highest percentage of children who slept under an ITN was in Togdheer region (37 percent) while the lowest was in Maroodijeex/Saaxil region (14 percent).

**Table CH.12: Children sleeping under mosquito nets**

Percentage of children age 0-59 months who slept under a mosquito net during the previous night, by type of net, Somaliland, 2011

	Percentage of children age 0-59 who stayed in the household the previous night	Number of children age 0-59 months	Percentage of children who:		Number of children age 0-59 months who slept in the household the previous night	Percentage of children who slept under an ITN living in households with at least one ITN	Number of children age 0-59 living in households with at least one ITN
			Slept under any mosquito net <sup>1</sup>	Slept under an insecticide treated net <sup>2</sup>			
<b>Sex</b>							
Male	98.8	2,395	23.9	21.8	2,366	55.0	939
Female	99.0	2,277	24.0	22.0	2,253	56.0	884
<b>Region</b>							
Maroodijeex/Saaxil	99.1	2,074	15.0	14.1	2,056	45.3	638
Awdal	99.6	727	28.5	25.7	724	55.3	336
Togdheer	98.9	948	40.9	36.6	938	68.2	503
Sool	100.0	262	22.6	19.9	262	59.3	88
Sanaag	96.8	661	23.2	22.0	640	54.4	258
<b>Area</b>							
Urban	99.1	2,256	20.3	18.2	2,236	50.1	812
Rural	98.6	2,416	27.4	25.4	2,383	59.7	1,011
<b>Age</b>							
0-11 months	99.5	933	30.0	27.5	929	65.1	393
12-23 months	98.9	771	23.6	21.5	763	54.2	303
24-35 months	99.0	987	24.0	21.5	978	55.8	376
36-47 months	98.6	1,067	23.4	21.6	1,053	53.0	428
48-59 months	98.2	914	18.6	17.2	897	47.8	322
<b>Mother's education<sup>a</sup></b>							
None	99.0	3,745	23.1	21.2	3,705	54.9	1,427
Primary	98.5	709	27.5	24.6	698	56.0	307
Secondary+	99.6	217	27.5	25.6	216	61.9	89
<b>Wealth index quintiles</b>							
Poorest	98.8	995	20.3	18.0	983	57.8	307
Second	99.1	1,055	29.8	27.3	1,045	60.1	475
Middle	98.3	940	25.8	24.5	925	59.4	381
Fourth	99.0	916	22.0	19.9	907	48.5	372
Richest	99.1	766	20.8	18.5	759	48.9	287
Total	98.9	4,672	24.0	21.9	4,619	55.4	1,823

<sup>1</sup> MICS indicator 3.14,

<sup>2</sup> MICS indicator 3.15; MDG indicator 6.7

aTotal includes 2 unweighted cases of children missing information on mothers education who are not shown separately

**Table CH.13: Pregnant women sleeping under mosquito nets**

Percentage of pregnant women who slept under a mosquito net during the previous night, by type of net, Somaliland , 2011

	Percentage of pregnant women who stayed in the household the previous night	Number of pregnant women	Percentage of pregnant women who:		Number of pregnant women who slept in the household the previous night	Percentage of pregnant women who slept under an ITN, living in households with at least one ITN	Number of pregnant women living in households with at least one ITN
			Slept under any mosquito net	Slept under an insecticide treated net <sup>1</sup>			
<b>Region</b>							
Maroodijeex/Saaxil	98.4	254	11.2	10.4	250	34.0	76
Awdal	100.0	72	29.8	26.9	72	(50.1)	39
Togdheer	100.0	99	40.4	38.2	99	66.0	57
Sool	(100.0)	41	(22.0)	(19.3)	41	(*)	12
Sanaag	95.3	64	22.7	22.7	61	(50.0)	28
<b>Area</b>							
Urban	98.6	263	17.3	17.0	259	42.5	103
Rural	98.8	267	25.5	23.1	264	55.9	109
<b>Age</b>							
15-19	(100.0)	32	(21.7)	(21.7)	32	(*)	15
20-24	99.1	116	24.9	23.1	115	53.3	50
25-29	98.3	160	23.6	22.9	157	54.7	66
30-34	96.9	100	17.1	15.0	97	(49.3)	29
35-39	100.0	86	18.0	16.7	86	(40.3)	36
40-44	(100.0)	26	(21.0)	(21.0)	26	(*)	14
45-49	(*)	10	(*)	(*)	10	(*)	2
<b>Education</b>							
None	98.8	415	18.9	17.9	410	44.7	164
Primary	97.5	77	29.6	28.3	75	(72.4)	29
Secondary+	(100.0)	38	(33.0)	(27.3)	38	(*)	19
<b>Wealth index quintiles</b>							
Poorest	100.0	88	14.6	13.4	88	(44.0)	27
Second	99.1	120	24.9	23.1	119	52.1	53
Middle	96.5	116	25.1	22.3	112	(59.8)	42
Fourth	100.0	110	24.5	24.5	110	51.4	53
Richest	98.1	96	15.7	14.6	94	(35.3)	39
Total	98.7	530	21.5	20.1	523	49.4	213

<sup>1</sup> MICS indicator 3.19

(\*) Figures that are based on less than 25 unweighted cases

( ) Figures that are based on 25-49 unweighted cases

Table CH.13 presents the proportion of pregnant women who slept under a mosquito net during the previous night. Twenty two percent of pregnant women slept under any mosquito net the night prior to the survey and one in four slept under an insecticide treated net. A higher proportion of women in the rural areas slept under ITN compared to those from the urban areas (23 versus 17 percent). The lowest percent of women who slept under ITN was found in Maroodijeex/Saaxil region (10 percent), those aged 30 to 34 years (15) and the poorest (13 percent). The use of ITNs appears to increase with education although the sample for secondary education is small and need to be interpreted with caution.

Questions on the prevalence and treatment of fever were asked for all children under age five. Eight percent of under five children were ill with fever in the two weeks prior to the survey (Table CH.14).

Fever prevalence seems to be the same across age groups and for all levels of mother's education. The findings show the lowest fever prevalence was in Awdal regional (4 percent).

**Table CH.14: Anti-malarial treatment of children with anti-malarial drugs**

Percentage of children age 0-59 months who had a fever in the last two weeks who received anti-malarial drugs, Somaliland, 2011

	Had a fever in last two weeks	Number of children age 0-59 months	Children with a fever in the last two weeks who were treated with:						Number of children with fever in last two weeks	
			Anti-malarials:							
			SP/ Fansidar	Chloro quine	Amodia- quine	Quini ne	Combi nation with artemi sinin	Any anti- malarial drug <sup>1</sup>		
<b>Sex</b>										
Male	7.8	2,396	6.2	1.6	0.5	0.0	2.6	9.3	2.8	187
Female	7.3	2,276	5.3	1.1	2.7	1.9	1.3	10.3	4.1	166
<b>Region</b>										
Maroodijeex /Saaaxil	8.0	2,075	5.3	1.2	1.8	0.6	1.2	7.0	4.1	165
Awdal	4.3	727	(6.4)	(0.0)	(3.3)	(0.0)	(0.0)	(9.7)	(0.0)	31
Togdheer	8.5	948	6.2	2.5	0.0	1.2	4.8	14.8	3.6	81
Sool	9.1	254	(*)	(*)	(*)	(*)	(*)	(*)	(*)	23
Sanaag	7.8	667	2.2	0.0	0.0	0.0	0.0	2.2	2.2	52
<b>Area</b>										
Urban	8.0	2,254	7.7	1.5	2.5	1.1	3.2	13.3	5.4	180
Rural	7.1	2,418	3.7	1.2	0.6	0.7	0.7	6.1	1.3	173
<b>Age</b>										
0-11 months	7.3	932	8.0	0.0	1.4	0.0	0.0	8.0	2.9	68
12-23 months	8.6	771	9.1	1.1	1.5	0.0	2.9	14.6	7.5	67
24-35 months	7.5	986	2.8	2.8	2.0	1.3	0.0	8.9	1.3	74
36-47 months	7.6	1,069	4.6	1.2	1.2	0.0	2.4	8.2	1.2	81
48-59 months	6.8	914	4.9	1.5	1.5	3.4	4.9	9.8	4.9	63
<b>Mother's education<sup>a</sup></b>										
None	7.4	3,746	6.7	1.7	1.6	0.4	1.4	10.4	3.3	276
Primary	8.7	708	1.6	0.0	0.0	1.8	1.8	3.4	1.6	62
Secondary+	6.5	216	(*)	(*)	(*)	(*)	(*)	(*)	(*)	14
<b>Wealth index quintiles</b>										
Poorest	6.9	993	6.3	0.0	0.0	0.0	0.0	6.3	3.3	69
Second	7.5	1,056	2.5	1.3	1.3	0.0	2.4	7.5	1.2	79
Middle	8.0	942	8.3	2.4	2.0	1.5	1.5	14.2	2.6	75
Fourth	8.0	919	0.0	1.3	0.0	2.6	4.0	7.9	2.6	73
Richest	7.4	762	13.8	1.7	5.2	0.0	1.7	13.8	8.6	56
<b>Total</b>	<b>7.5</b>	<b>4,672</b>	<b>5.8</b>	<b>1.3</b>	<b>1.5</b>	<b>0.9</b>	<b>2.0</b>	<b>9.8</b>	<b>3.4</b>	<b>352</b>

<sup>1</sup> MICS indicator 3.18; MDG indicator 6.8

<sup>2</sup> MICS indicator 3.17

(\*) Figures that are based on less than 25 unweighted cases

( ) Figures that are based on 25 - 49 unweighted cases

<sup>a</sup>Total includes 2 unweighted cases of children missing information on mothers' education who are not shown separately

Mothers were asked to report all of the medicines given to a child to treat the fever, including both medicines given at home and medicines given or prescribed at a health facility. Overall, 10 percent of children with fever in the last two weeks were treated with an "appropriate" anti-malarial drug and only 3 percent received anti-malarial drugs either on the same day or day after the onset of symptoms.

“Appropriate” anti-malarial drugs include chloroquine, SP (sulfadoxine-pyrimethamine), artimisinine combination drugs, etc. In Somaliland the first line of treatment is ACT (Artemisinin Combination Therapy) and especially Artemisinin + Sulfadoxine-Pyrimethamine (AS+SP). The results shows that only 1 percent of children with fever were given chloroquine, and 6 percent were given SP and 2 percent received artesunate combination therapy. There were no cases of malaria treatment using Antibiotic pill or syrup, Antibiotic injection, Paracetamol/ Panadol/ Acetaminophen, Aspirin and Ibuprofen and ‘other antimalarial thus they are not shown on the table.

Treatment with appropriate anti-malarial drugs was higher among urban children (13 percent) than rural children (6 percent). Little difference was noted between boys and girls receiving appropriate anti-malarial drugs.

<b>Table CH.15: Malaria diagnostics usage</b>		
	Had a finger or heel stick <sup>1</sup>	Number of children age 0-59 months with fever in the last two weeks
<b>Sex</b>		
Male	16.9	188
Female	15.0	166
<b>Region</b>		
Maroodijeex/Saaxil	12.9	165
Awdal	(12.3)	31
Togdheer	25.9	81
Sool	(30.8)	26
Sanaag	5.4	51
<b>Area</b>		
Urban	23.8	177
Rural	8.3	177
<b>Age</b>		
0-11	15.6	69
12-23	24.5	67
24-35	18.0	75
36-47	10.6	81
48-59	12.2	62
<b>Mother's education<sup>a</sup></b>		
None	14.2	277
Primary	20.0	62
Secondary+	(*)	14
<b>Wealth index quintiles</b>		
Poorest	4.5	68
Second	12.2	80
Middle	20.1	76
Fourth	22.2	73
Richest	22.0	57
Total	16.0	354

<sup>1</sup> MICS indicator 3.16  
<sup>a</sup>Total include 1 unweighted case of child missing information on mother's education who is not shown separately  
( ) Figures that are based on 25-49 unweighted cases  
(\*) Figures that are based on less than 25 unweighted cases

Table CH.15 provides the proportion of children age 0-59 months who had a fever in the last two weeks and who had a finger or heel stick for malaria testing. Overall, 16 percent of children with a fever in the last two weeks had a finger or heel stick. The use of malaria diagnostics was highest among urban residents (24 percent), Togdheer region (26 percent), 12 to 23 months (24 percent) and among those within the fourth and fifth wealth index quintiles (22 percent).

Pregnant women living in places where malaria is highly prevalent are four times more likely than other adults to get malaria and twice as likely to die of the disease. Once infected, pregnant women risk anaemia, premature delivery and stillbirth. Their babies are likely to be of low birth weight, which makes them unlikely to survive their first year of life. For this reason, steps are taken to protect pregnant women by distributing insecticide-treated mosquito nets and treatment during antenatal check-ups with drugs that prevent malaria infection (Intermittent preventive treatment or IPT). In Somaliland MICS, women were asked of the medicines they had received in their last pregnancy during the 2 years preceding the survey. Women are considered to have received intermittent preventive therapy if they have received at least 2 doses of SP/Fansidar during the pregnancy.

Intermittent preventive treatment for malaria in pregnant women who gave birth in the two years preceding the survey is presented in Table CH.16. Six percent of the women who gave birth in the two years preceding the survey received any medicine to prevent malaria during pregnancy. However, only 1 percent received intermittent preventing therapy.

**Table CH.16: Intermittent preventive treatment for malaria**

Percentage of women age 15-49 years who had a live birth during the two years preceding the survey and who received intermittent preventive treatment (IPT) for malaria during pregnancy at any antenatal care visit, Somaliland, 2011

	Percentage of women who received antenatal care (ANC)	Number of women who had a live birth in the last two years	Percentage of pregnant women who took:			Number of women who had a live birth in the last two years and who received antenatal care
			Any medicine to prevent malaria at any ANC visit during pregnancy	SP/Fansidar at least once	<sup>8</sup> SP/Fansidar two or more times <sup>1</sup>	
<b>Region</b>						
Maroodijeex/Saaxil	39.5	715	6.0	2.8	2.1	282
Awdal	32.9	244	2.6	0.0	0.0	80
Togdheer	23.1	321	13.5	10.8	1.3	74
Sool	26.8	90	(*)	(*)	(*)	24
Sanaag	18.8	200	(5.0)	(2.1)	(0.0)	38
<b>Area</b>						
Urban	47.6	758	5.1	2.9	1.3	361
Rural	16.9	812	10.1	4.6	1.5	138
<b>Education</b>						
None	27.2	1237	5.4	3.3	1.5	336
Primary	44.4	260	7.8	4.1	1.7	115
Secondary+	64.2	73	(10.6)	(2.1)	(0.0)	47
<b>Wealth index quintiles</b>						
Poorest	9.0	325	(7.2)	(0.0)	(0.0)	29
Second	17.0	342	17.7	12.2	3.7	58
Middle	30.5	313	5.2	2.1	0.0	96
Fourth	48.1	317	5.2	3.2	1.9	152
Richest	59.6	274	4.2	1.8	1.2	163
<b>Total</b>	<b>31.7</b>	<b>1570</b>	<b>6.4</b>	<b>3.4</b>	<b>1.4</b>	<b>498</b>

<sup>1</sup> MICS indicator 3.20

(\*) Figures that are based on less than 25 unweighted cases

( ) Figures that are based on 25-49 unweighted cases

<sup>8</sup> A review of the quality of data relating to children below 2 years indicates potential data quality limitations hence the need to interpret the results with caution.

## VII. Water and Sanitation

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Safe drinking water is a basic necessity for good health. Unsafe drinking water can be a significant carrier of diseases such as trachoma, cholera, typhoid, and schistosomiasis. Drinking water can also be tainted with chemical, physical and radiological contaminants with harmful effects on human health. In addition to its association with disease, access to drinking water may be particularly important for women and children, especially in rural areas, who bear the primary responsibility for carrying water, often for long distances.

The MDG goal (7, C) is to reduce by half, between 1990 and 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation. The World Fit for Children goal calls for a reduction in the proportion of households without access to hygienic sanitation facilities and affordable and safe drinking water by at least one-third.

The list of indicators used in MICS is as follows:

### Water

- Use of improved drinking water sources
- Use of adequate water treatment method
- Time to source of drinking water
- Person collecting drinking water

### Sanitation

- Use of improved sanitation facilities
- Sanitary disposal of child's faeces

For more details on water and sanitation and to access some reference documents, please visit the UNICEF childinfo website<sup>9</sup>.

MICS also collects additional information on the availability of facilities and conditions for handwashing. The following indicators are collected:

- Place for handwashing observed
- Availability of soap

### Use of Improved Water Sources

The distribution of the population by main source of drinking water is shown in Table WS.1 and Figure WS.1. The population using *improved sources* of drinking water are those using any of the following types of supply: piped water (into dwelling, compound, yard or plot, to neighbour, public tap/standpipe), tubewell/borehole, protected well, protected spring, and rainwater collection. Bottled water is considered as an improved water source only if the household is using an improved water source for handwashing and cooking.

Overall, 42 percent of the population is using an improved source of drinking water – 64 percent in urban areas and 17 percent in rural areas. The situation in Sool region is considerably worse than in other regions; only 15 percent of the population in this region gets its drinking water from an improved source. Access to improved sources of drinking water increases with wealth index quintile

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<sup>9</sup> <http://www.childinfo.org/wes.html>

from 15 percent among the poorest to 78 percent among the richest wealth index quintile (Table WS.1).

The source of drinking water for the population varies strongly by region (Table WS.1). In Maroodijeex/Saaxil and Awdal regions, 28 and 29 percent of the population use drinking water that is piped into their dwelling or into their yard or plot. In contrast, only 8 percent of those residing in Togdheer and 4 percent of those in Sanaag have piped water into dwelling. In Sool region, the most important source of drinking water is rainwater collection into a Berkad<sup>10</sup>. In Awdal and Sanaag regions, the second most important source of drinking water is unprotected wells (an unimproved source).

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<sup>10</sup> A berkad is a traditional water basin dug in the open ground which collects surface water acting as a source of water for people and animals.

**Table WS.1: Use of improved water sources**

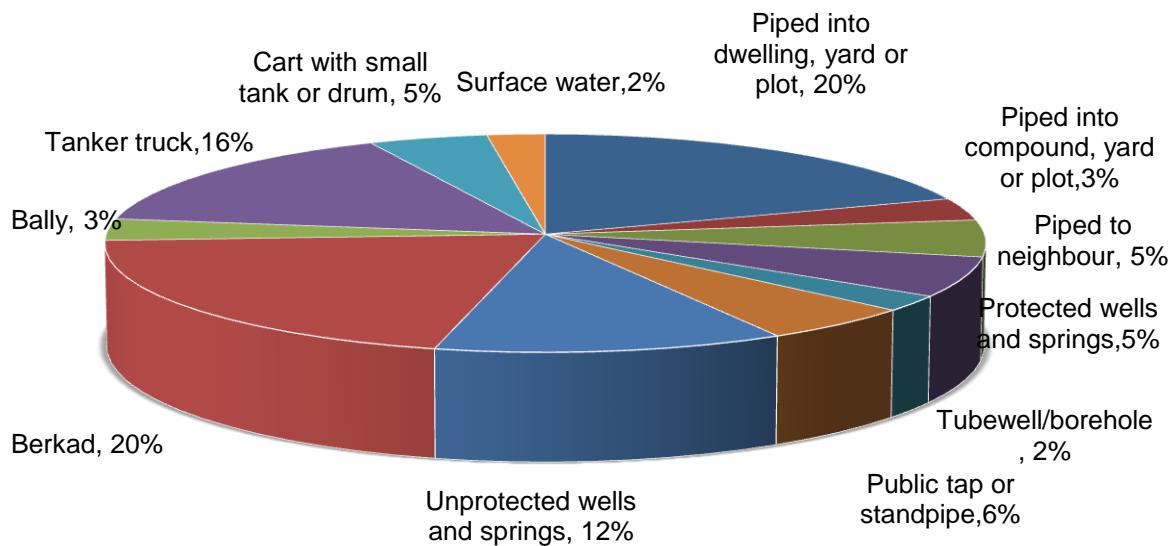
Percent distribution of household population according to main source of drinking water and percentage of household population using improved drinking water sources, Somaliland, 2011

	Main source of drinking water																	Percentage using improved sources of drinking water <sup>1</sup>	Number of household members		
	Improved sources								Unimproved sources												
	Piped water				Rainwater Collection:				Cart with tank/drum					Large tank near compound/village/section							
	Into dwelling	Into yard/plot	To neighbour	Public tap/stand-pipe	Tube-well/bore-hole	Pro- tected well	Pro- tected spring	Unpro- tected well	Unpro- tected spring	Roof top	Berkad	Bally	Tanker truck	Surface water	Large tank near compound/village/section	Other	Missing	Total			
<b>Region</b>																					
Maroodijex /Saaxil	28.0	3.8	7.9	8.6	0.9	2.3	0.2	5.6	1.7	0.2	10.8	2.7	17.4	7.3	1.8	0.1	0.5	0.0	100.0	51.8	14,590
Awdal	28.8	6.7	7.2	5.3	3.3	4.8	1.0	16.7	2.4	0.2	8.1	6.3	1.2	1.5	4.9	0.0	1.4	0.0	100.0	57.1	4,612
Togdheer	7.5	2.2	2.8	2.4	2.7	7.6	0.0	9.3	0.4	0.3	38.4	3.3	19.0	3.9	0.0	0.0	0.0	0.1	100.0	25.1	5,754
Sool	0.0	0.9	0.0	1.3	4.0	9.1	0.0	17.4	0.5	0.0	37.2	0.9	27.1	0.2	0.4	0.0	0.9	0.0	100.0	15.3	1,661
Sanaag	3.6	0.1	0.6	3.5	5.1	8.3	2.3	16.4	5.3	0.2	36.8	0.4	10.2	1.9	3.4	0.2	1.6	0.1	100.0	23.5	3,985
<b>Area</b>																					
Urban	36.2	6.1	9.8	8.9	1.4	1.5	0.0	1.9	0.1	0.0	2.7	0.1	23.6	7.1	0.0	0.0	0.4	0.0	100.0	64.0	16,137
Rural	1.1	0.2	0.5	2.5	3.4	8.5	1.2	19.1	4.1	0.4	40.2	6.2	5.1	2.0	4.3	0.1	1.1	0.1	100.0	17.3	14,465
<b>Education of household head</b>																					
None	14.5	2.5	5.6	6.0	2.8	5.4	0.5	11.9	2.6	0.2	22.9	3.5	13.6	4.4	2.5	0.1	0.8	0.1	100.0	37.4	20,523
Primary	19.5	4.6	6.2	6.9	2.2	6.2	0.4	7.4	0.7	0.0	20.1	3.0	15.5	4.7	1.9	0.1	0.7	0.1	100.0	45.9	40,85
Secondary+	40.9	5.5	4.5	4.3	0.5	1.8	0.5	4.8	0.0	0.3	10.3	1.2	19.1	5.3	0.7	0.0	0.4	0.0	100.0	58.0	5,140
Missing/DK	13.0	2.9	3.2	6.7	2.5	3.2	2.8	9.3	4.4	0.0	24.8	1.9	14.5	9.5	0.2	0.0	1.1	0.0	100.0	34.2	854
<b>Wealth index quintile</b>																					
Poorest	0.0	0.1	0.5	0.8	4.8	7.4	1.5	28.3	6.7	0.6	32.0	7.3	2.1	0.6	6.1	0.1	1.0	0.0	100.0	15.1	6,123
Second	0.4	0.4	3.3	6.7	3.4	10.2	0.5	15.4	2.6	0.3	39.4	5.0	5.1	2.0	3.5	0.2	1.4	0.1	100.0	25.0	6,118
Middle	3.6	2.3	11.4	12.3	2.9	4.4	0.6	4.9	0.4	0.1	23.6	2.3	21.3	8.5	0.6	0.0	0.6	0.1	100.0	37.5	6,121
Fourth	29.8	5.3	9.0	7.6	0.5	1.7	0.2	1.5	0.1	0.0	6.0	0.4	28.1	9.2	0.0	0.0	0.4	0.0	100.0	54.3	6,121
Richest	64.0	8.5	3.1	1.9	0.0	0.3	0.0	0.1	0.0	0.0	1.1	0.1	17.6	3.2	0.1	0.0	0.1	0.0	100.0	77.7	6,118
<b>Total</b>	19.6	3.3	5.4	5.9	2.3	4.8	0.6	10.0	2.0	0.2	20.4	3.0	14.8	4.7	2.1	0.1	0.7	0.1	100.0	41.9	30,601

<sup>1</sup> MICS indicator 4.1; MDG indicator 7.8

There were no households using bottled water whether improved or unimproved thus not shown on the table

**Figure WS.1: Percent distribution of household members by source of drinking water Somaliland, 2011**



Use of household water treatment is presented in Table WS.2. Households were asked of ways they may be treating water at home to make it safer to drink. Boiling water, adding bleach or chlorine, using a water filter, and using solar disinfection are considered as proper treatment of drinking water. The table shows water treatment by all households and the percentage of household members living in households using unimproved water sources but using appropriate water treatment methods.

Overall, 13 percent of household members in households using unimproved drinking water sources are using appropriate water treatment methods. The most preferred method of treating water is addition of bleach/chlorine. The use of bleach/chlorine appears to be more common among the educated and reach people. Boiling drinking water is less common and only 2 percent of the households use it as a method of water treatment.

**Table WS.2: Household water treatment**

Percentage of household population by drinking water treatment method used in the household, and for household members living in households where an unimproved drinking water source is used, the percentage who are using an appropriate treatment method, Somaliland, 2011

	Water treatment method used in the household							Number of household members	Percentage of household members in households using unimproved drinking water sources and using an appropriate water treatment method <sup>1</sup>	Number of household members in households using unimproved drinking water sources
	None	Boil	Add bleach/ chlorine	Strain through a cloth	Use water filter	Let it stand and settle	Other			
<b>Region</b>										
Maroodiijex/Saaxil	83.6	2.4	14.2	0.1	0.0	0.1	0.2	14,590	15.9	7,037
Awdal	86.4	1.1	12.5	0.0	0.3	0.1	0.1	4,612	13.0	1,979
Togdheer	87.8	1.4	9.5	0.1	0.7	0.1	0.5	5,754	11.1	4,309
Sool	95.1	1.4	3.3	0.0	0.0	0.7	0.0	1,661	5.5	1,406
Sanaag	87.7	1.9	8.6	0.2	0.0	0.0	1.6	3,985	10.2	3,048
<b>Area</b>										
Urban	84.7	1.7	13.6	0.0	0.1	0.0	0.2	16,137	15.9	5,817
Rural	87.4	2.1	9.6	0.2	0.3	0.2	0.6	14,465	11.0	11,962
<b>Education of household head</b>										
None	89.0	1.5	9.0	0.1	0.1	0.1	0.3	20,523	9.9	12,848
Primary	82.2	2.6	14.5	0.0	0.3	0.2	0.8	4,085	17.6	2,208
Secondary+	76.8	3.1	20.4	0.2	0.3	0.1	0.6	5,140	24.5	2,161
Missing/DK	86.3	0.0	11.3	1.0	0.0	0.0	0.6	854	9.7	561
<b>Wealth index quintile</b>										
Poorest	93.2	.7	4.8	0.1	0.1	0.1	0.5	6,123	5.5	5,201
Second	86.5	2.8	10.4	0.1	0.5	0.4	0.5	6,118	12.9	4,591
Middle	84.5	2.5	13.1	0.2	0.1	0.1	0.3	6,121	14.6	3,825
Fourth	82.7	1.1	15.3	0.1	0.2	0.0	0.4	6,121	19.9	2,800
Richest	82.9	2.3	15.1	0.0	0.1	0.0	0.3	6,118	18.6	1,363
Total	86.0	1.9	11.7	0.1	0.2	0.1	0.4	30,601	12.6	17,779

<sup>1</sup> MICS indicator 4.2.

There were no cases for solar disinfection hence this water treatment method is not shown in the table

The amount of time it takes to obtain water is presented in Table WS.3 and the person who usually collected the water in Table WS.4. Note that these results refer to one round trip from home to drinking water source. Information on the number of trips made in one day was not collected.

Table WS.3 shows that 33 percent of household members in Somaliland have an improved water source on premises. Among users of improved drinking water sources, 3 percent of household members spend less than 30 minutes to get to the water source and bring water while 6 percent of the household members spend 30 minutes or more. More than half (56 percent) of urban household members use improved water sources on premises compared to 7 percent in rural areas. Twenty four percent of the household members use unimproved water sources located on their premises. Rural household members using unimproved water sources spend more time in collecting water compared to those in urban areas.

Table WS.4 shows that for the majority of households, an adult female is usually the person collecting the water, when the source of drinking water is not on the premises. Adult men collect water in only 29 percent of cases, while for the rest of the households, female or male children under age 15 collect water (6 and 3 percent respectively).

**Table WS.3: Time to source of drinking water**

Percent distribution of household population according to time to go to source of drinking water, get water and return, for users of improved and unimproved drinking water sources, Somaliland, 2011

	Time to source of drinking water									Number of household members	
	Users of improved drinking water sources				Users of unimproved drinking water sources						
	Water on premises	Less than 30 minutes	30 minutes or more	Missing/ DK	Water on premises	Less than 30 minutes	30 minutes or more	Missing/ DK	Total		
<b>Region</b>											
Maroodijeex/Saaxil	43.7	2.7	4.7	0.7	23.1	6.2	13.9	5.0	100.0	14,588	
Awdal	45.6	3.9	7.2	0.4	13.9	5.1	20.9	3.0	100.0	4,612	
Togdheer	17.5	2.7	4.8	0.2	28.2	13.0	30.5	3.2	100.0	5,753	
Sool	5.2	3.4	5.6	1.3	42.9	5.0	33.8	2.9	100.0	1,708	
Sanaag	9.4	4.4	9.8	0.4	24.6	11.2	37.5	2.7	100.0	3,959	
<b>Area</b>											
Urban	55.7	3.3	4.5	0.4	23.1	1.7	7.2	4.0	100.0	16,146	
Rural	6.6	2.9	7.2	0.7	24.9	14.9	39.1	3.8	100.0	14,473	
<b>Education of household head</b>											
None	27.3	3.1	6.4	0.6	24.2	9.0	25.0	4.3	100.0	20,527	
Primary	35.3	4.8	5.4	0.5	23.7	6.6	20.3	3.5	100.0	4,089	
Secondary+	52.6	1.7	3.4	0.2	21.7	4.9	12.7	2.8	100.0	5,149	
Missing/DK	23.6	4.2	6.5	0.0	32.7	6.3	23.1	3.5	100.0	854	
<b>Wealth index quintile</b>											
Poorest	4.3	2.8	7.2	0.8	22.2	15.9	42.3	4.5	100.0	6,124	
Second	11.9	3.7	9.0	0.8	19.8	14.4	36.5	3.9	100.0	6,125	
Middle	24.2	4.7	7.9	0.5	32.0	6.4	20.3	4.0	100.0	6,120	
Fourth	46.3	3.9	3.7	0.3	31.2	1.9	8.7	4.0	100.0	6,124	
Richest	75.9	0.5	1.1	0.2	14.7	1.0	3.5	3.1	100.0	6,125	
Total	32.5	3.1	5.8	0.5	24.0	7.9	22.2	3.9	100.0	30,619	

**Table WS.4: Person collecting water**

Percentage of households without drinking water on premises, and percent distribution of households without drinking water on premises according to the person usually collecting drinking water used in the household, Somaliland , 2011

	Percentage of households without drinking water on premises	Number of households	Person usually collecting drinking water					Number of households without drinking water on premises	
			Adult woman	Adult man	Female child under age 15	Male child under age 15	Missing/DK		
<b>Region</b>									
Maroodijeex/Saaxil	35.7	2,176	56.5	29.7	5.1	2.9	5.1	100.0	777
Awdal	44.8	725	61.0	29.3	4.1	1.6	4.1	100.0	325
Togdheer	57.8	953	64.3	28.0	4.7	1.7	1.4	100.0	550
Sool	56.5	295	54.8	26.6	14.0	4.6	0.0	100.0	167
Sanaag	66.3	670	59.8	28.8	6.2	3.1	2.1	100.0	445
<b>Area</b>									
Urban	22.0	2,280	46.6	36.7	5.3	2.4	9.0	100.0	501
Rural	69.4	2,540	63.2	26.6	5.8	2.6	1.8	100.0	1,763
<b>Education of household head</b>									
None	51.9	3,333	61.0	27.8	5.9	2.7	2.6	100.0	1,730
Primary	43.8	637	57.3	31.8	4.0	2.2	4.6	100.0	279
Secondary+	27.2	722	50.5	33.3	5.7	2.1	8.5	100.0	197
Missing/DK	44.9	128	59.1	30.8	6.9	0.0	3.1	100.0	57
<b>Wealth index quintile</b>									
Poorest	74.7	1,075	65.1	25.9	5.5	2.2	3.1	100.0	803
Second	68.4	1,077	62.5	26.9	6.3	2.7	1.3	100.0	736
Middle	44.8	991	56.5	29.7	6.6	2.6	1.5	100.0	444
Fourth	23.6	860	41.5	43.2	4.2	4.4	4.7	100.0	203
Richest	9.5	816	38.0	34.8	1.1	0.0	6.8	100.0	77
<b>Total</b>	<b>47.0</b>	<b>4,820</b>	<b>59.5</b>	<b>28.8</b>	<b>5.7</b>	<b>2.6</b>	<b>3.4</b>	<b>100.0</b>	<b>2,263</b>

## **Use of Improved Sanitation Facilities**

Inadequate disposal of human excreta and personal hygiene is associated with a range of diseases including diarrhoeal diseases and polio. An improved sanitation facility is defined as one that hygienically separates human excreta from human contact. Improved sanitation can reduce diarrheal disease by more than a third, and can significantly lessen the adverse health impacts of other disorders responsible for death and disease among millions of children in developing countries. Improved sanitation facilities for excreta disposal include flush or pour flush to a piped sewer system, septic tank, or pit latrine; ventilated improved pit latrine, pit latrine with slab, and use of a composting toilet.

Thirty two percent of the population of Somaliland is living in households using pit latrines with slabs while 15 percent of households have toilet facility which flush or pour flush into a pit latrine (Table WS.5). More than half (60 percent) of households in Sanaag region do not have any toilet facility. The percent of those without toilet facility is considerably higher in rural areas compared to urban areas. In rural areas, the population is mostly using pit latrines with slabs, or simply have no facilities. In contrast, the most common facilities in urban areas are pit latrines with slabs. Almost all of the poorest households (96 percent) have no toilet facility. Ownership of ventilated pit latrines increased with education of the household head.

**Table WS.5: Types of sanitation facilities**

Percent distribution of household population according to type of toilet facility used by the household, Somaliland, Somaliland , 2011

	Type of toilet facility used by household												Number of household members
	Improved sanitation facility						Unimproved sanitation facility						
	Flush/Pour flush to:			Unknown place/not sure/DK where	Ventilated improved pit latrine	Pit latrine with slab	Flush/ pour flush to somewhere else	Latrine without slab/ open pit	Bucket	Other	Open defecation (no facility, bush, field)		
	Piped sewer system	Septic tank	Pit latrine								Total		
<b>Region</b>													
Maroodijeex/Saaxil	1.8	4.9	19.7	0.3	8.5	34.0	0.9	6.2	0.1	0.4	23.1	100.0	14,588
Awdal	0.0	2.6	12.0	0.2	4.8	29.9	0.2	5.2	0.2	0.5	44.0	100.0	4,612
Togdheer	0.0	1.1	11.3	0.1	3.0	35.8	1.6	7.3	0.0	1.0	38.7	100.0	5,753
Sool	0.0	8.2	20.0	0.0	2.1	30.5	0.5	2.1	0.0	1.1	35.4	100.0	1,708
Sanaag	0.0	2.3	6.6	0.1	3.9	23.2	1.2	1.9	0.0	1.0	59.9	100.0	3,959
<b>Area</b>													
Urban	1.6	5.6	21.7	0.3	10.0	47.4	1.1	6.8	0.1	0.6	4.7	100.0	16,146
Rural	0.0	1.5	8.1	0.1	1.5	15.1	0.7	4.0	0.0	0.6	68.0	100.0	14,473
<b>Education of household head</b>													
None	0.5	3.6	13.5	0.2	4.4	27.4	0.9	5.7	0.0	0.7	42.8	100.0	20,527
Primary	0.9	2.9	18.6	0.2	5.1	41.2	0.2	7.1	0.2	0.2	23.3	100.0	4,089
Secondary+	2.2	5.0	21.1	0.3	12.2	43.4	1.2	3.3	0.1	0.2	10.7	100.0	5,149
Missing/DK	0.9	0.6	5.4	0.0	10.9	35.9	2.4	5.1	0.0	1.9	36.9	100.0	854
<b>Wealth index quintile</b>													
Poorest	0.0	0.0	0.4	0.0	0.2	0.8	0.4	1.9	0.1	0.4	95.9	100.0	6,124
Second	0.0	0.9	9.5	0.2	0.8	13.9	0.7	7.5	0.1	1.6	64.7	100.0	6,125
Middle	0.3	5.5	19.4	0.1	3.6	46.5	1.6	9.7	0.1	0.8	12.3	100.0	6,120
Fourth	1.0	6.0	25.1	0.0	7.8	52.7	0.5	6.3	0.0	0.2	0.1	100.0	6,124
Richest	3.0	6.1	21.9	0.6	17.6	46.8	1.4	2.2	0.1	0.1	0.0	100.0	6,125
<b>Total</b>	0.9	3.7	15.3	0.2	6.0	32.2	0.9	5.5	0.1	0.6	34.6	100.0	30,619

The MDGs and the WHO / UNICEF Joint Monitoring Programme (JMP) for Water Supply and Sanitation classify households as using an unimproved sanitation facility if they are using otherwise acceptable sanitation facilities but sharing a facility between two or more households or using a public toilet facility.

As shown in Table WS.6, 51 percent of the household population is using an improved sanitation facility that is not shared. Only 6 percent of households use an improved toilet facility that is shared with five or fewer other households. Use of a shared facility by five or fewer households is more common in Sool region (11 percent) compared to other regions and highest among middle wealth index quintile households (12 percent) compared to households in other wealth index quintiles. One percent of users of unimproved sanitation facility were sharing with five or less households

<b>Table WS.6: Use and sharing of sanitation facilities</b>											
Percent distribution of household population by use of private and public sanitation facilities and use of shared facilities, by users of improved and unimproved sanitation facilities, Somaliland, 2011											
	Users of improved sanitation facilities				Users of unimproved sanitation facilities				Open defecation (no facility, bush, field)	Number of household members	
	Not shared <sup>1</sup>	Public facility	Shared by	More than 5 households	Not shared	Public facility	Shared by	More than 5 households			
Region			5 households or less				5 households or less			Total	
Maroodijex/Saaxil	61.9	1.3	5.5	0.5	6.3	0.3	0.9	0.1	23.1	100.0	14,588
Awdal	44.1	0.9	4.2	0.1	4.8	0.7	1.0	0.0	44.0	100.0	4,612
Togdheer	43.7	1.3	6.1	0.2	7.4	0.6	1.8	0.2	38.7	100.0	5,753
Sool	50.0	0.0	10.8	0.0	3.1	0.5	0.0	0.3	35.4	100.0	1,708
Sanaag	30.6	0.5	4.7	0.3	2.8	0.0	1.2	0.1	59.9	100.0	3,959
Area											
Urban	77.4	1.1	7.4	0.5	7.0	0.4	1.4	0.0	4.7	100.0	16,146
Rural	21.7	1.0	3.5	0.1	4.2	0.3	0.7	0.3	68.0	100.0	14,473
Education of household head											
None	43.5	0.9	4.8	0.3	6.0	0.5	1.0	0.1	42.8	100.0	20,527
Primary	57.8	1.3	8.7	0.7	5.1	0.2	2.0	0.4	23.3	100.0	4,089
Secondary+	76.9	1.3	5.9	0.2	4.4	0.1	0.4	0.0	10.7	100.0	5,149
Missing/DK	45.5	1.1	7.1	0.0	7.2	0.6	1.6	0.0	36.9	100.0	854
Wealth index quintile											
Poorest	1.2	0.1	0.1	0.0	2.0	0.1	0.5	0.2	95.9	100.0	6,124
Second	19.8	1.9	3.4	0.2	7.4	0.6	1.6	0.3	64.7	100.0	6,125
Middle	60.0	2.1	12.2	1.0	8.3	1.0	2.8	0.2	12.3	100.0	6,120
Fourth	82.7	0.6	8.9	0.4	6.6	0.2	0.4	0.0	0.1	100.0	6,124
Richest	91.9	0.5	3.5	0.1	3.9	0.0	0.1	0.0	0.0	100.0	6,125
Total	51.1	1.0	5.6	0.3	5.6	0.4	1.1	0.1	34.6	100.0	30,619

<sup>1</sup> MICS indicator 4.3;MDG indicator 7.9

Safe disposal of a child's faeces is disposing of the stool, by the child using a toilet or by rinsing the stool into a toilet or latrine. Disposal of faeces of children 0-2 years of age is presented in Table WS.7. For about half of the children aged 0-2 years, the last stool was disposed of safely with a higher percentage of safe stool disposal in urban areas compared to rural areas. Safe stool disposal increased with education of the mother and wealth index quintiles. Stool was left in the open for about one quarter of the children with a majority being in the rural areas.

**Table WS.7: Disposal of child's faeces**

Percent distribution of children age 0-2 years according to place of disposal of child's faeces, and the percentage of children age 0-2 years whose stools were disposed of safely the last time the child passed stools, Somaliland, 2011

	Place of disposal of child's faeces							Percentage of children whose last stools were disposed of safely <sup>1</sup>	Number of children age 0-2 years	
	Child used toilet/latrine	Put/rinsed into toilet or latrine	Put/rinsed into drain or ditch	Thrown into garbage	Buried	Left in the open	Other	Missing/DK	Total	
<b>Type of sanitation facility in dwelling</b>										
Improved	3.1	76.2	7.0	3.3	0.7	2.9	2.5	4.3	100.0	79.4
Unimproved	1.7	55.4	11.0	5.6	9.4	12.9	0.6	3.3	100.0	57.2
Open defecation	0.2	4.7	1.3	16.4	10.0	63.0	1.2	3.3	100.0	4.9
<b>Region</b>										
Maroodijeex/Saaxil	2.7	55.7	5.6	7.6	2.5	17.8	3.2	5.0	100.0	58.4
Awdal	2.7	38.2	4.7	7.5	4.7	37.7	0.4	4.1	100.0	40.9
Togdheer	1.1	46.2	7.5	7.0	6.3	28.2	1.6	2.0	100.0	47.3
Sool	0.0	60.4	1.1	13.4	2.6	18.2	0.5	3.7	100.0	60.4
Sanaag	1.1	36.1	2.6	10.7	10.3	36.0	0.3	2.9	100.0	37.2
<b>Area</b>										
Urban	3.6	72.5	8.0	4.5	1.3	3.3	2.5	4.3	100.0	76.1
Rural	0.4	25.8	2.4	11.9	7.9	46.9	1.3	3.4	100.0	26.2
<b>Mother's education<sup>a</sup></b>										
None	1.7	43.7	4.6	8.9	5.3	29.9	1.8	4.2	100.0	45.4
Primary	2.5	65.4	7.1	6.5	3.3	10.9	2.4	1.9	100.0	67.9
Secondary+	4.4	68.8	8.3	4.6	0.0	6.3	1.5	6.1	100.0	73.3
<b>Wealth index quintile</b>										
Poorest	0.0	4.9	0.8	13.3	11.3	65.9	0.9	2.8	100.0	4.9
Second	0.7	23.3	2.7	15.2	8.0	45.0	1.6	3.6	100.0	24.0
Middle	3.1	65.3	6.8	5.5	2.6	10.2	2.2	4.2	100.0	68.4
Fourth	2.4	80.6	8.3	1.9	0.2	0.5	1.5	4.6	100.0	83.0
Richest	4.2	75.6	7.9	4.0	0.2	0.4	3.4	4.2	100.0	79.8
Total	2.0	48.5	5.1	8.3	4.7	25.7	1.9	3.9	100.0	50.5
										2,681

<sup>1</sup> MICS indicator 4.4.

<sup>a</sup>Total includes 2 unweighted cases of children missing information on mothers education who are not shown separately

In its 2008 report<sup>11</sup>, the JMP developed a new way of presenting the access figures, by disaggregating and refining the data on drinking-water and sanitation and reflecting them in "ladder" format. This ladder allows a disaggregated analysis of trends in a three rung ladder for drinking-water and a four-rung ladder for sanitation. For sanitation, this gives an understanding of the proportion of population with no sanitation facilities at all, of those reliant on technologies defined by JMP as "unimproved," of those sharing sanitation facilities of otherwise acceptable technology, and those using "improved" sanitation facilities.

Table WS.8 presents the percentages of household population by drinking water and sanitation ladders. The table also shows the percentage of household members using improved sources of drinking water and sanitary means of excreta disposal. Overall, 29 percent of the household members have improved drinking water sources and improved sanitation facilities. The largest population using improved drinking water and improved sanitation facilities are in urban areas (51 percent) and among the richest wealth index quintile (72 percent; Table WS.8).

<sup>11</sup>WHO/UNICEF JMP (2008), MDG assessment report - [http://www.wssinfo.org/download?id\\_document=1279](http://www.wssinfo.org/download?id_document=1279)

**Table WS.8: Drinking water and sanitation ladders**

Percentage of household population by drinking water and sanitation ladders, Somaliland, 2011

	Percentage of household population using:											Number of household members	
	Improved drinking water <sup>1</sup>			Total	Unimproved sanitation				Total	Improved drinking water sources and improved sanitation			
	Piped into dwelling, plot or yard	Other improved	Un-improved drinking water		Improved sanitation <sup>2</sup>	Shared improved facilities	Unimproved facilities	Open defecation					
<b>Region</b>													
Maroodijeex/Saaxil	31.8	20.0	48.2	100.0	61.9	7.3	7.7	23.1	100.0	39.7	14,588		
Awdal	35.6	21.5	42.9	100.0	44.1	5.4	6.5	44.0	100.0	37.3	4,612		
Togdheer	9.7	15.4	74.9	100.0	43.7	7.5	10.1	38.7	100.0	14.5	5,753		
Sool	1.1	14.3	84.6	100.0	50.0	10.8	3.9	35.4	100.0	7.2	1,708		
Sanaag	3.7	20.2	76.0	100.0	30.6	5.4	4.1	59.9	100.0	11.6	3,959		
<b>Area</b>													
Urban	42.3	21.8	36.0	100.0	77.4	9.1	8.8	4.7	100.0	50.5	16,146		
Rural	1.3	16.0	82.7	100.0	21.7	4.7	5.5	68.0	100.0	5.3	14,473		
<b>Education of household head</b>													
None	17.0	20.4	62.6	100.0	43.5	6.1	7.6	42.8	100.0	23.9	20,527		
Primary	24.1	21.8	54.1	100.0	57.8	11.1	7.7	23.3	100.0	31.8	4,089		
Secondary+	46.4	11.6	42.0	100.0	76.9	7.4	5.0	10.7	100.0	49.8	5,149		
Missing /DK	15.9	18.5	65.6	100.0	45.5	8.2	9.5	36.9	100.0	18.5	854		
<b>Wealth index quintile</b>													
Poorest	0.1	14.9	85.0	100.0	1.2	0.2	2.7	95.9	100.0	0.1	6,124		
Second	0.8	24.6	74.6	100.0	19.8	5.5	10.0	64.7	100.0	6.4	6,125		
Middle	5.9	31.4	62.6	100.0	60.0	15.4	12.3	12.3	100.0	22.0	6,120		
Fourth	35.1	19.1	45.8	100.0	82.7	10.0	7.2	0.1	100.0	44.9	6,124		
Richest	72.5	5.3	22.3	100.0	91.9	4.1	4.0	0.0	100.0	72.3	6,125		
Total	22.9	19.1	58.1	100.0	51.1	7.0	7.3	34.6	100.0	29.1	30,619		

<sup>1</sup> MICS indicator 4.1; MDG indicator 7.8

<sup>2</sup> MICS indicator 4.3; MDG indicator 7.9

## **Handwashing**

Handwashing with water and soap is the most cost effective health intervention to reduce both the incidence of diarrhoea and pneumonia in children under five. It is most effective when done using water and soap after visiting a toilet or cleaning a child, before eating or handling food and, before feeding a child.

Monitoring correct hand washing behaviour at these critical times is challenging. A reliable alternative to observations or self-reported behaviour is assessing the likelihood that correct hand washing behaviour takes place by observing if a household has a specific place where people most often wash their hands and observing if water and soap (or other local cleansing materials) are present at a specific place for hand washing.

**Table WS.9: Water and soap at place for handwashing**

Percentage of households where place for handwashing was observed and percent distribution of households by availability of water and soap at place for handwashing, Somaliland, 2011

	Percentage of households where place for handwashing was not observed					Number of households	Percent distribution of households where place for handwashing was observed, and:					Number of households where place for handwashing was observed	
	Percentage of households where place for handwashing was observed	Not in dwelling/plot/yard	No permission to see	Other reasons	Missing		Water and soap are available <sup>1</sup>	Water is available, soap is not available	Water is not available, soap is available	Water and soap are not available	Missing		
<b>Region</b>													
Maroodijeex/Saaxil	27.0	62.4	5.2	5.3	0.2	100.0	2,176	82.7	8.2	5.1	3.0	1.0	100.0
Awdal	18.0	70.7	4.9	6.3	0.1	100.0	725	71.7	11.4	4.5	12.4	0.0	100.0
Togdheer	16.8	73.2	2.9	7.2	0.0	100.0	953	68.0	14.6	4.9	11.2	1.3	100.0
Sool	12.4	78.1	5.6	4.0	0.0	100.0	295	59.4	(0.0)	(8.3)	(32.3)	(0.0)	37
Sanaag	20.5	68.9	3.6	6.9	0.2	100.0	670	71.3	11.0	1.2	15.0	1.6	100.0
<b>Area</b>													
Urban	32.4	55.9	7.0	4.5	0.2	100.0	2,280	82.2	7.3	5.8	4.2	0.5	100.0
Rural	12.3	78.2	2.2	7.2	0.0	100.0	2,540	64.0	15.2	1.7	17.1	2.1	100.0
<b>Education of household head</b>													
None	18.8	71.1	3.7	6.2	0.1	100.0	3,333	71.7	12.4	5.1	9.8	1.0	100.0
Primary	23.8	64.6	6.0	5.6	0.0	100.0	637	78.7	7.8	3.8	9.1	0.7	100.0
Secondary+	35.5	55.0	5.7	3.7	0.1	100.0	722	89.7	3.0	3.8	2.3	1.2	100.0
Missing/DK	14.2	63.7	8.6	12.7	0.8	100.0	128	54.4	(*)	(*)	(*)	(*)	18
<b>Wealth index quintiles</b>													
Poorest	9.6	80.9	2.4	7.0	0.1	100.0	1,075	42.9	23.3	1.0	29.7	3.1	100.0
Second	13.0	76.0	2.2	8.8	0.0	100.0	1,077	56.5	23.4	3.6	14.2	2.3	100.0
Middle	15.2	75.7	4.1	4.8	0.2	100.0	991	75.6	7.8	8.9	7.7	0.0	100.0
Fourth	31.0	58.2	6.0	4.8	0.0	100.0	860	80.9	6.5	5.8	6.0	0.7	266
Richest	47.8	39.2	9.2	3.4	0.4	100.0	816	90.7	3.9	3.4	1.5	0.5	390
Total	21.8	67.7	4.5	5.9	0.1	100.0	4,820	76.8	9.6	4.6	8.0	1.0	100.0
<sup>1</sup> <b>MICS indicator 4.5</b>													
() Figures that are based on 25-49 unweighted cases.													
(*) Figures that are based less than 25 unweighted cases.													

In Somaliland, 22 percent of the households had a specific place for hand washing which was observed while 68 percent of households could not indicate a specific place where household members usually wash their hands. Five percent of the households did not give permission to see the place used for handwashing (Table WS.9). Of those households where a place for handwashing was observed, about three-quarters (77 percent) had both water and soap present at the specific place. In 10 percent of the households only water was available at the specific place, while in 5 percent of the households the place only had soap but no water. The remaining 8 percent of households had neither water nor soap available at the designated place for hand washing.

Table WS. 10 shows that soap was observed in 18% of the households with a place for hand washing. Less than 1 percent of the households were not able to show any soap present in the household. Availability of soap at place of handwashing increased with education of household head and household wealth. Seventy percent of the households had soap anywhere in the house irrespective of if there a place for hand washing was observed or not.

<b>Table WS.10: Availability of soap</b>										
Percent distribution of households by availability of soap in the dwelling, Somaliland, 2011										
	Place for handwashing observed				Place for handwashing not observed				Percentage of households with soap anywhere in the dwelling <sup>1</sup>	
	Soap not observed at place for handwashing									
	Soap observed	Soap shown	No soap in household	Not able/ Does not want to show soap	Soap shown	No soap in household	Not able/ Does not want to show soap	Total	Number of households	
<b>Region</b>										
Maroodijeex/Saaxil	23.7	1.3	1.6	0.1	49.8	22.7	0.4	100.0	74.8	2,176
Awdal	13.7	2.8	1.5	0.0	53.7	28.1	0.1	100.0	70.1	725
Togdheer	12.2	2.4	1.9	0.0	53.5	29.4	0.3	100.0	68.1	953
Sool	8.4	1.3	2.7	0.0	41.2	46.5	0.0	100.0	50.9	295
Sanaag	14.9	1.6	3.7	0.0	46.5	32.8	0.1	100.0	63.0	670
<b>Area</b>										
Urban	28.5	1.8	1.8	0.1	50.7	16.3	0.4	100.0	81.1	2,280
Rural	8.1	1.7	2.2	0.0	49.6	37.9	0.1	100.0	59.4	2,540
<b>Education of household head</b>										
None	14.4	1.7	2.4	0.1	49.2	31.8	0.1	100.0	65.4	3,333
Primary	19.6	2.8	1.0	0.2	53.0	22.8	0.5	100.0	75.4	637
Secondary+	33.2	1.1	0.8	0.0	50.6	13.2	0.4	100.0	84.9	722
Missing/DK	8.5	1.7	4.1	0.0	57.5	26.9	1.5	100	67.6	128
<b>Wealth index quintile</b>										
Poorest	4.2	2.4	2.7	0.0	42.7	47.6	0.1	100.0	49.2	1,075
Second	7.8	1.5	3.4	0.0	53.3	33.5	0.3	100.0	62.6	1077
Middle	12.9	1.0	1.4	0.0	53.7	30.7	0.2	100.0	67.6	991
Fourth	26.9	2.0	1.6	0.2	56.0	12.3	0.4	100.0	84.9	860
Richest	45.0	2.1	0.4	0.1	45.4	6.4	0.4	100.0	92.5	816
Total	17.7	1.8	2.0	0.1	50.1	27.7	0.3	100.0	69.7	4,820

<sup>1</sup> MICS indicator 4.6

## VIII. Reproductive Health

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### Fertility

Measures of current fertility are presented in Table RH.1 for the three-year period preceding the survey. A three-year period was chosen for calculating these rates to provide the most current information while also allowing the rates to be calculated for a sufficient number of cases so as not to compromise the statistical precision of the estimates. Age-specific fertility rates (ASFRs), expressed as the number of births per 1,000 women in a specified age group, show the age pattern of fertility. Numerators for ASFRs are calculated by identifying live births that occurred in the three-year period preceding the survey classified according to the age of the mother (in five-year age groups) at the time of the child's birth. The denominators of the rates represent the number of woman-years lived by the survey respondents in each of the five-year age groups during the specified period. The total fertility rate (TFR) is the number of live births a woman would have if she is subject to the current age-specific fertility rates throughout her reproductive years (15-49 years).

**Table RH.1: Adolescent birth rate and total fertility rate<sup>12</sup>**

Adolescent birth rates and total fertility rates, Somaliland, 2011

	Adolescent birth rate <sup>1</sup> (Age-specific fertility rate for women age 15-19)	Total fertility rate
<b>Region</b>		
Maroodijeex/Saaxil	45	4.9
Awdal	64	6.0
Togdheer	94	6.1
Sool	106	5.8
Sanaag	76	5.8
<b>Area</b>		
Urban	35	5.0
Rural	112	6.1
<b>Women's education</b>		
None	92	5.7
Primary	47	5.6
Secondary+	15	3.5
<b>Wealth index quintile</b>		
Poorest	112	6.7
Second	115	6.2
Middle	84	5.3
Fourth	44	5.2
Richest	19	4.3
Total	64	5.4

<sup>1</sup> MICS indicator 5.1; MDG indicator 5.4

<sup>12</sup>**Notes:** The presented estimates are generated based on the Birth History module of the MICS questionnaires which is recognized as more complex to administer even in more stable countries. The BH module was a challenge to implement in this MICS, hence the need to interpret the adolescent birth rate results with caution.

Table RH.1 shows adolescent birth rates and total fertility rates. The adolescent birth rate (age-specific fertility rate for women age 15-19) is defined as the number of births to women age 15-19 years during the three year period preceding the survey, divided by the average number of women age 15-19 (number of women-years lived between ages 15 through 19, inclusive) during the same period, expressed per 1,000 women. The TFR for women 15 -19 years the three years preceding the Somaliland MICS is 5.4 births per woman. Fertility is considerably higher in rural areas (6.1 births per woman) than in urban areas (5.0 births per woman). Education level of a woman aged 15 – 19 influences fertility and women with no education have higher fertility (5.7) compared to women with secondary or higher education (3.5). Moreover, wealth status is associated with the adolescent birth rate and women from the poorest quintile have a considerably higher fertility rate (6.7 births per woman) compared women in the richest quintile (4.3 births per women).

Sexual activity and childbearing early in life carry significant risks for young people all around the world. Table RH.2 presents some early childbearing indicators for women age 15-19 and 20-24 while Table RH.3 presents the trends for early childbearing. As shown in Table RH.2, 6 percent of women age 15-19 have already had a birth, 1 percent are pregnant with their first child, 7 percent have begun childbearing and 1 percent have had a live birth before age 15. Early child bearing declines with increasing level of education.

**Table RH.2: Early childbearing<sup>12</sup>**

Percentage of women age 15-19 years who have had a live birth, are pregnant with the first child, and have begun childbearing, and those who have had a live birth before age 15, and percentage of women age 20-24 who have had a live birth before age 18, Somaliland, 2011

	Percentage of women age 15-19 who:			Number of women age 15-19	Percentage of women age 20-24 who have had a live birth before age 18 <sup>1</sup>	Number of women age 20-24
	Have had a live birth	Are pregnant with first child	Have begun childbearing			
<b>Region</b>						
Maroodijeex/Saaxil	4.5	0.8	5.4	0.1	719	9.3
Awdal	5.4	1.5	6.9	1.5	210	15.1
Togdheer	9.3	0.7	10.0	1.5	268	19.2
Sool	9.0	3.6	12.5	1.4	76	13.2
Sanaag	5.2	2.9	8.1	1.2	178	23.6
<b>Area</b>						
Urban	3.5	1.0	4.5	0.4	928	8.0
Rural	10.0	1.9	11.8	1.4	523	23.0
<b>Education</b>						
None	8.6	1.6	10.2	1.0	638	18.2
Primary	4.2	1.2	5.5	0.8	546	9.1
Secondary+	2.5	0.7	3.2	0.4	267	2.5
<b>Wealth index quintile</b>						
Poorest	7.6	1.1	8.7	2.3	180	36.6
Second	11.7	2.7	14.4	1.4	233	19.4
Middle	6.1	1.0	7.1	0.7	281	17.5
Fourth	4.8	1.2	6.0	0.6	321	10.0
Richest	2.6	0.9	3.4	0.0	436	2.9
Total	5.8	1.3	7.1	0.8	1,451	13.6
<sup>1</sup> MICS indicator 5.2						

As shown in table RH.3 early child bearing is more common in rural than urban areas. The percentage of women with a live birth before age 15 in rural areas is 4 percent compared to 2 percent for those in urban areas.

**Table RH.3: Trends in early childbearing<sup>12</sup>**

Percentage of women who have had a live birth, by age 15 and 18, by area and age group, Somaliland, 2011

	Urban				Rural				All			
	Percen-	Percen-	Percen-	Percen-	Percen-	Percen-	Percen-	Percen-	Percen-	Percen-	Percen-	Percen-
Age	age 15- before age 15	Num- ber of women age 15- before age 15	Num- ber of women age 20- before age 18	age 15- before age 18	age 15- before age 15	Num- ber of women age 15- before age 18	age 15- before age 18	age 15- before age 15	age 15- before age 15	Num- ber of women age 15- before age 18	age 15- before age 18	
15-19	0.4	928	na	na	1.4	523	na	na	0.8	1,451	na	na
20-24	1.6	721	8.0	721	4.5	427	23.0	427	2.7	1,148	13.6	1,148
25-29	2.3	603	14.0	603	4.7	457	22.1	457	3.3	1,060	17.5	1,060
30-34	5.5	350	26.0	350	6.4	381	25.6	381	6.0	731	25.8	731
35-39	2.8	350	17.8	350	4.3	323	20.9	323	3.5	673	19.3	673
40-44	6.0	269	21.0	269	4.7	271	15.8	271	5.4	540	18.4	540
45-49	4.8	158	13.9	158	0.0	105	8.1	105	2.9	262	11.6	262
Total	2.4	3,378	15.3	2,451	4.0	2,487	21.2	1,963	3.1	5,865	17.9	4,414

## Contraception

Appropriate family planning is important to the health of women and children by: 1) preventing pregnancies that are too early or too late; 2) extending the period between births; and 3) limiting the number of children. Access by all couples to information and services to prevent pregnancies that are too early, too closely spaced, too late or too many is critical.

In Somaliland, the current use of contraception was reported by 10 percent of women currently married (Table RH.4). The next most popular method is the Lactational Amenorrhea Method (LAM) which is used by 8 percent of married women. Use of the other methods including IUD, male sterilisation, male condom and vaginal methods are non-existent.

Contraceptive prevalence is highest in Awdal region at 12 percent and almost as high in Togdheer and Maroodijeex/Sahil regions at 10 percent. Eight percent of married women in Sanaag region use a method of contraception. Between different age groups contraception use appear to follow a curve and starts low for married adolescents (15 – 19 years) at 8 percent and rises to 11 percent among women 20-24 year, reaching a pick of 12 percent among women aged 25 – 29 years. It then declines to 10 percent among 30 – 34 year old women and reaches a low of 6 percent among women 45 -49 years.

**Table RH.4: Use of contraception**

Percentage of women age 15-49 years currently married who are using (or whose partner is using) a contraceptive method, Somaliland, 2011

	Not using any method	Percent of women (currently married or in union) who are using:							Number of women currently married	
		Injectables	Pill	Female condom	LAM	Withdrawal	Any modern method	Any traditional method		
<b>Region</b>										
Maroodijeex/Saaxil	90.2	0.6	1.5	0.1	7.3	0.1	2.4	7.5	9.8	1,439
Awdal	88.1	0.8	1.6	0.0	9.2	0.2	2.6	9.4	11.9	492
Togdheer	90.1	0.0	0.0	0.0	9.9	0.0	0.0	9.9	9.9	602
Sool	92.4	0.0	0.9	0.0	6.7	0.0	0.9	6.7	7.6	181
Sanaag	91.8	0.0	0.0	0.0	8.2	0.0	0.0	8.2	8.2	432
<b>Area</b>										
Urban	89.3	0.8	2.1	0.1	7.5	0.1	3.2	7.6	10.7	1,521
Rural	91.1	0.0	0.0	0.0	8.8	0.1	0.0	8.9	8.9	1,626
<b>Age</b>										
15-19	91.6	0.0	0.7	0.0	7.7	0.0	0.7	7.7	8.4	129
20-24	88.9	1.1	1.9	0.0	8.0	0.2	2.9	8.2	11.1	455
25-29	88.2	0.5	1.0	0.0	10.3	0.0	1.5	10.3	11.8	751
30-34	90.0	0.5	1.3	0.0	8.1	0.0	1.9	8.1	10.0	603
35-39	91.1	0.2	0.7	0.0	7.7	0.0	0.9	8.1	8.9	553
40-44	92.2	0.0	0.6	0.0	6.9	0.2	0.6	7.2	7.8	452
45-49	93.7	0.0	0.0	1.0	4.9	0.0	1.4	4.9	6.3	202
<b>Number of living children</b>										
0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	272
1	90.5	0.6	1.6	0.0	7.2	0.0	2.3	7.2	9.5	299
2	88.1	1.1	1.9	0.0	9.0	0.0	2.9	9.0	11.9	364
3	88.6	0.7	1.1	0.0	9.4	0.0	2.0	9.4	11.4	438
4+	89.5	0.2	0.9	0.1	9.1	0.1	1.2	9.3	10.5	1,774
<b>Education</b>										
None	90.7	0.2	0.6	0.0	8.2	0.0	1.0	8.3	9.3	2,510
Primary	88.9	1.3	1.9	0.2	7.7	0.0	3.4	7.7	11.1	459
Secondary+	86.3	0.5	3.8	0.0	8.3	0.5	4.9	8.8	13.7	177
<b>Wealth index quintile</b>										
Poorest	92.1	0.0	0.3	0.0	7.5	0.0	0.3	7.6	7.9	635
Second	88.2	0.0	0.0	0.0	11.7	0.2	0.0	11.8	11.8	683
Middle	91.0	0.4	0.7	0.1	7.7	0.0	1.3	7.7	9.0	660
Fourth	90.7	0.5	1.6	0.0	7.1	0.0	2.0	7.3	9.3	616
Richest	88.9	1.2	2.8	0.2	6.4	0.2	4.6	6.5	11.1	552
Total	90.2	0.4	1.0	0.1	8.2	0.1	1.5	8.3	9.8	3,146

<sup>1</sup> MICS indicator 5.3; MDG indicator 5.3.

There are no cases of female sterilization, male sterilization, IUD, Implants, male condom, periodic abstinence and diaphragm/foam/jelly thus not shown on the table.

Contraceptive prevalence appears to follow an increasing trend as women's education increase. The percentage of women using any method of contraception varies slightly from 9 percent among those with no education to 11 percent among women with primary education, and to 14 percent among women with secondary or higher education. Use of LAM tends to remain fairly consistent across the education categories.

## Unmet Need

Unmet need for contraception refers to fecund women who are not using any method of contraception, but who wish to postpone the next birth (spacing) or who wish to stop childbearing altogether (limiting). Unmet need is identified in MICS by using a set of questions eliciting current behaviours and preferences pertaining to contraceptive use, fecundity, and fertility preferences.

Table RH.5 shows the levels of met need for contraception, unmet need, and the demand for contraception satisfied.

Unmet need for spacing is defined as the percentage of women who are not using a method of contraception AND

- are not pregnant and not postpartum amenorrheic<sup>13</sup> and are fecund<sup>14</sup> and say they want to wait two or more years for their next birth OR
- are not pregnant and not postpartum amenorrheic and are fecund and unsure whether they want another child OR
- are pregnant and say that pregnancy was mistimed: would have wanted to wait OR
- are postpartum amenorrheic and say that the birth was mistimed: would have wanted to wait

Unmet need for limiting is defined as percentage of women who are not using a method of contraception AND

- are not pregnant and not postpartum amenorrheic and are fecund and say they do not want any more children OR
- are pregnant and say they do not want to have a child OR
- are postpartum amenorrheic and say that they do not want the birth

Total unmet need for contraception is the sum of unmet need for spacing and unmet need for limiting. In the Somaliland the unmet need appear fairly low (20 percent). Unmet need for birth spacing (16 percent) contributes to most of the total unmet need. The total unmet need is highest in Maroodi/Sahil and Sool regions (22 percent) and lowest in Sanaag region (16 percent). The data suggests that women in Somaliland tend to have many children and hence the low unmet need for contraception.

Met need for limiting includes women who are using (or whose partner is using) a contraceptive method and who want no more children, are using male or female sterilization or declare themselves as infecund. Met need for spacing includes women who are using (or whose partner is using) a contraceptive method and who want to have another child or are undecided whether to have another child. The total of met need for spacing and limiting adds up to the total met need for contraception. The total met need for contraception is 15 percent and this mostly comes from the

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<sup>13</sup>A women is postpartum amenorrheic if she had a birth in last two years and is not currently pregnant, and her menstrual period has not returned since the birth of the last child

<sup>14</sup>A women is considered infecund if she is neither pregnant nor postpartum amenorrheic, and (1a) has not had menstruation for at least six months, or (1b) never menstruated, or (1c) her last menstruation occurred before her last birth, or (1d) in menopause/has had hysterectomy OR

(2) She declares that she has had hysterectomy, or that she has never menstruated or that she is menopausal, or that she has been trying to get pregnant for 2 or more years without result in response to questions on why she thinks she is not physically able to get pregnant at the time of survey OR

(3) She declares she cannot get pregnant when asked about desire for future birth OR

(4) She has not had a birth in the preceding 5 years, is currently not using contraception and is currently married and was continuously married during the last 5 years preceding the survey

met need for birth spacing. The met need for contraception appears to follow education levels and is lowest (14 percent) for those women with no education and highest (19 percent) among women with secondary or higher education (Table RH.5).

<b>Table RH.5: Unmet need for contraception</b>									
Percentage of women age 15-49 years currently married with an unmet need for family planning and percentage of demand for contraception satisfied, Somaliland, 2011									
	Met need for contraception			Unmet need for contraception			Number of women currently married	Percentage of demand for contraception satisfied	Number of women currently married with need for contraception
	For spacing	For limiting	Total	For spacing	For limiting	Total <sup>1</sup>			
<b>Region</b>									
Maroodijeex/Saaxil	14.9	0.8	15.7	17.8	4.6	22.3	1,439	41.3	547
Awdal	15.2	1.0	16.2	13.0	3.9	16.9	492	49.0	163
Togdheer	12.7	1.0	13.8	17.0	3.7	20.7	602	40.0	207
Sool	11.4	0.0	11.4	19.1	2.4	21.5	181	34.6	60
Sanaag	11.5	0.3	11.8	14.0	1.8	15.7	432	42.8	119
<b>Area</b>									
Urban	15.6	0.8	16.4	16.8	5.1	21.9	1,521	42.8	583
Rural	12.2	0.7	12.9	16.0	2.6	18.6	1,626	41.0	513
<b>Age</b>									
15-19	(15.1)	(0.0)	(15.1)	(21.1)	(0.0)	(21.1)	(129)	(41.7)	47
20-24	16.3	0.0	16.3	18.3	2.0	20.3	455	44.5	167
25-29	14.9	0.4	15.3	17.1	2.0	19.1	751	44.4	258
30-34	11.8	1.0	12.7	18.5	3.5	22.0	603	36.6	210
35-39	12.5	1.5	14.0	15.7	5.9	21.6	553	39.3	197
40-44	13.4	1.4	14.8	12.8	6.5	19.3	452	43.4	154
45-49	14.7	0.5	15.3	10.1	6.0	16.1	202	48.7	63
<b>Education</b>									
None	13.3	0.7	14.1	16.6	3.8	20.4	2510	40.9	865
Primary	15.2	0.9	16.1	16.1	3.9	19.9	459	44.7	166
Secondary+	17.5	1.1	18.6	14.6	3.9	18.4	177	50.3	66
<b>Wealth index quintiles</b>									
Poorest	10.7	0.5	11.2	16.8	2.3	19.2	635	37.0	193
Second	15.5	0.9	16.4	17.2	3.2	20.4	683	44.6	252
Middle	13.0	0.9	13.9	15.5	3.3	18.8	660	42.6	216
Fourth	13.5	0.6	14.2	17.7	5.4	23.1	616	38.0	230
Richest	16.8	0.9	17.7	14.6	4.9	19.5	552	47.5	205
Total	13.9	0.8	14.6	16.4	3.8	20.2	3,146	42.0	1,096

<sup>1</sup> MICS indicator 5.4; MDG indicator 5.6

( ) Figures that are based on 25-49 unweighted cases

Using information on contraception and unmet need, the percentage of demand for contraception satisfied is also estimated from the MICS data. The percentage of demand satisfied is defined as the proportion of women currently married who are currently using contraception, of the total demand for contraception. The total demand for contraception includes women who currently have an unmet need (for spacing or limiting), plus those who are currently using contraception. Only 42 percent of the demand of contraception is satisfied (Table RH.5). Thus the met need (15 percent) is lower than the total unmet need (20 percent) for family planning. The demand for contraception that is satisfied varies with education from 41 percent among women with no education to 50 percent among women with secondary or higher education.

## Antenatal Care

The antenatal period presents important opportunities for reaching pregnant women with a number of interventions that may be vital to their health and well-being and that of their infants. Better understanding of foetal growth and development and its relationship to the mother's health has resulted in increased attention to the potential of antenatal care as an intervention to improve both maternal and newborn health.

For example, if the antenatal period is used to inform women and families about the danger signs and symptoms and about the risks of labour and delivery, it may provide the route for ensuring that pregnant women do, in practice, deliver with the assistance of a skilled health care provider. The antenatal period also provides an opportunity to supply information on birth spacing, which is recognized as an important factor in improving infant survival. Tetanus immunization during pregnancy can be life-saving for both the mother and infant. The prevention and treatment of malaria among pregnant women, management of anaemia during pregnancy and treatment of STIs can significantly improve foetal outcomes and improve maternal health. Adverse outcomes such as low birth weight can be reduced through a combination of interventions to improve women's nutritional status and prevent infections (e.g., malaria and STIs) during pregnancy. More recently, the potential of the antenatal period as an entry point for HIV prevention and care, in particular for the prevention of HIV transmission from mother to child, has led to renewed interest in access to and use of antenatal services.

WHO recommends a minimum of four antenatal visits based on a review of the effectiveness of different models of antenatal care. WHO guidelines are specific on the content on antenatal care visits, which include:

- Blood pressure measurement
- Urine testing for bateriuria and proteinuria
- Blood testing to detect syphilis and severe anaemia
- Weight /height measurement (optional)

The type of personnel providing antenatal care to women aged 15-49 years who gave birth in the two years preceding the survey is presented in Table RH.6. In Somaliland, more than half of women (58 percent) did not receive antenatal care. Among those receiving ANC, 32 percent were attended by a skilled provider. This ranged from 40 percent in Maroodijeex/Sahil region to 19 percent in Sanaag region. In addition, the majority of antenatal care is provided by medical doctors (22 percent) while less than one percent of women receive care from traditional birth attendants. Access to skilled care varies with the area of residence. The percent of ANC utilization is higher among women in urban areas compared to their rural counterparts (48 percent versus 17 percent). Furthermore, wealth status determines whether a woman attended a skilled care provider. The percentage of women attended by a skilled care provider increased from 9 percent in the poorest households to 60 percent in the richest households.

**Table RH.6: Antenatal care coverage<sup>8</sup>**

Percent distribution of women age 15-49 who gave birth in the two years preceding the survey by type of personnel providing antenatal care during the pregnancy for the last birth, Northwest Zone, Somalia 2011

	Person providing antenatal care						Number of women who gave birth in the preceding two years		
	Medical doctor	Nurse/ Midwife	Auxiliary midwife	Traditional birth attendant	Community health worker	Other	No antenatal care received	Total	Any skilled personnel <sup>1</sup>
<b>Region</b>									
Maroodijeex/Saaxil	29.2	9.7	0.6	0.0	10.6	1.1	48.8	100.0	39.5
Awdal	23.8	8.7	0.4	0.0	10.7	1.3	55.1	100.0	32.9
Togdheer	12.5	9.3	1.3	0.0	8.7	0.6	67.6	100.0	23.1
Sool	12.3	12.7	0.9	1.2	2.7	0.0	70.1	100.0	25.9
Sanaag	11.7	6.0	1.1	1.1	6.0	0.9	73.2	100.0	18.8
<b>Area</b>									
Urban	33.0	13.9	0.7	0.0	12.9	1.0	38.3	100.0	47.7
Rural	11.1	4.6	0.8	0.4	5.7	0.9	76.4	100.0	16.5
<b>Mother's age at birth<sup>a</sup></b>									
Less than 20	19.1	6.3	0.7	0.0	9.2	0.7	64.0	100.0	26.1
20-34	21.9	9.6	0.8	0.2	9.4	1.2	56.9	100.0	32.3
35-49	22.2	8.9	0.9	0.5	8.4	0.0	59.2	100.0	31.9
<b>Education</b>									
None	17.5	8.9	0.7	0.3	8.1	1.0	63.6	100.0	27.1
Primary	32.5	10.7	1.2	0.0	12.7	1.2	41.7	100.0	44.4
Secondary	56.0	8.0	0.0	0.0	16.1	0.0	19.9	100.0	64.0
<b>Wealth index quintiles</b>									
Poorest	5.8	2.6	0.6	0.3	3.6	1.0	86.1	100.0	9.0
Second	11.6	5.1	0.3	0.0	7.7	0.9	74.4	100.0	17.0
Middle	16.9	12.0	1.6	0.7	9.1	1.5	58.2	100.0	30.5
Fourth	32.8	13.8	1.3	0.0	11.0	0.9	40.2	100.0	47.9
Richest	46.2	13.2	0.0	0.0	15.9	0.4	24.2	100.0	59.5
Total	21.8	9.1	0.8	0.2	9.2	1.0	57.9	100.0	31.7
<sup>1</sup> MICS indicator 5.5a; MDG indicator 5.5									
<sup>a</sup> Total includes 4 unweighted cases of women missing information on mothers age at birth who are not shown separately									

The place of receiving ANC for women age 15-49 with a birth in two years preceding the survey is presented in Table RH. 6B. The Government is the main provider ANC services through government clinic/health centres (12 percent) and Government hospitals (9 percent). ANC is more accessible to mothers in urban areas than those in rural areas. In addition, more mothers in Maroodijeex/Sahil (14 percent) and Awdal (14 percent) regions are accessing the main providers of antenatal care compared to the other regions.

**Table RH.6B: Place for receiving antenatal care**

Percent distribution of women age 15-49 with a birth in two years preceding the survey by place for receiving antenatal care

	Place for receiving antenatal care											Number of women who gave birth in preceding two years		
	Home	Other home	Government hospital	Govt. clinic / health centre	Govt. health post	Other public medical institution	Private hospital	Private clinic	Private maternity home	Other private medical institution	No antenatal care	Missing/DK	Total	
<b>Region</b>														
Maroodijeex/Saaxil	1.5	0.3	9.9	13.8	8.2	1.2	12.5	1.8	0.4	0.3	48.8	1.2	100.0	716
Awdal	0.4	0.0	12.6	14.4	8.3	2.9	4.8	0.4	0.0	0.0	55.1	1.2	100.0	245
Togdheer	2.8	0.0	6.7	9.9	7.5	0.3	2.8	0.7	0.9	0.0	67.6	0.9	100.0	321
Sool	0.0	0.0	7.9	3.6	1.8	2.2	3.6	0.9	5.8	0.0	70.1	4.0	100.0	88
Sanaag	3.8	0.0	5.6	9.3	4.4	1.6	0.9	0.5	0.0	0.0	73.2	0.5	100.0	200
<b>Area</b>														
Urban	2.7	0.0	11.2	17.7	10.0	1.9	13.6	1.4	1.2	0.1	38.3	1.8	100.0	763
Rural	0.9	0.3	6.9	6.5	4.6	0.9	1.5	0.9	0.3	0.1	76.4	0.7	100.0	807
<b>Mother's age at birth<sup>a</sup></b>														
Less than 20	1.2	0.7	9.1	10.9	6.1	0.7	3.2	1.3	1.4	0.0	64.0	1.3	100.0	152
20-34	2.1	0.1	9.1	12.4	7.4	1.5	7.1	1.1	0.8	0.1	56.9	1.4	100.0	1180
35-49	0.8	0.0	8.0	10.6	7.2	1.2	10.8	1.3	0.0	0.5	59.2	0.5	100.0	235
<b>Education</b>														
None	1.5	0.2	7.9	10.8	6.6	1.2	5.2	1.1	0.5	0.2	63.6	1.3	100.0	1238
Primary	3.0	0.0	10.7	16.2	8.4	1.9	14.7	1.2	1.1	0.0	41.7	1.1	100.0	259
Secondary +	2.7	0.0	22.0	15.8	13.3	2.7	18.3	1.3	2.8	0.0	19.9	1.3	100.0	73
<b>Wealth index quintiles</b>														
Poorest	0.7	0.3	4.6	2.3	3.6	0.0	1.0	0.3	0.0	0.0	86.1	1.2	100.0	325
Second	1.1	0.3	5.8	6.8	6.7	0.6	1.5	0.9	0.6	0.3	74.4	0.9	100.0	341
Middle	1.8	0.0	9.5	12.2	8.1	3.2	3.2	1.9	0.6	0.3	58.2	1.0	100.0	313
Fourth	3.3	0.0	13.8	18.9	8.5	1.9	9.8	0.9	2.0	0.0	40.2	0.6	100.0	317
Richest	2.2	0.0	12.1	21.5	9.6	1.4	24.3	1.8	0.3	0.0	24.2	2.8	100.0	274
Total	1.8	0.1	9.0	11.9	7.2	1.4	7.4	1.1	0.7	0.1	57.9	1.2	100.0	1,570

<sup>a</sup>Total includes 4 unweighted cases of women missing information on mothers age at birth who are not shown separately

UNICEF and WHO recommend a minimum of four ANC visits during pregnancy. Table RH.7 shows number of antenatal care visits during the last pregnancy within the two years preceding the survey, regardless of provider by selected characteristics. About 15 per cent of mothers received the recommended 4 or more ANC visits. Another 7 per cent of mothers received antenatal care only once and 8 percent received two visits. Mothers from the poorest households and those with primary education are less likely to receive ANC four or more times. For example, 3 percent of the women living in poorest households reported four or more antenatal care visits compared with 31 percent among those living in richest households. In addition, only 12 percent of mothers with primary education had 4 or more visits compared to 41 percent among those with secondary or higher education.

<b>Table RH.7: Number of antenatal care visits</b>								
Percent distribution of women who had a live birth during the two years preceding the survey by number of antenatal care visits by any provider, Somaliland, 2011								
	Percent distribution of women who had:						Number of women who had a live birth in the preceding two years	
	No antenatal care visits	One visit	Two visits	Three visits	4 or more visits <sup>1</sup>	Missing/DK		
<b>Region</b>								
Maroodijeex/Saaxil	48.8	8.0	10.2	13.7	18.9	0.4	100	715
Awdal	55.1	3.7	9.2	13.6	18.0	0.4	100	244
Togdheer	67.6	5.8	5.6	9.7	10.1	1.2	100	321
Sool	69.0	3.9	2.7	10.8	10.2	3.3	100	90
Sanaag	73.1	8.7	5.0	6.2	5.6	1.4	100	200
<b>Area</b>								
Urban	38.5	7.0	11.2	17.7	24.4	1.2	100	758
Rural	75.9	6.5	5.1	6.2	5.8	0.5	100	812
<b>Mother's age at birth<sup>a</sup></b>								
Less than 20	64.0	10.1	6.6	9.5	9.1	0.7	100	152
20-34	56.8	6.2	8.1	12.0	16.1	0.7	100	1,180
35-49	59.2	7.3	7.7	12.0	12.1	1.6	100	234
<b>Education</b>								
None	63.5	5.9	7.5	10.5	11.9	0.6	100	1237
Primary	41.6	8.6	11.2	16.3	20.8	1.6	100	260
Secondary+	19.8	13.8	5.4	17.3	41.2	2.4	100	73
<b>Wealth index quintile</b>								
Poorest	86.1	5.9	2.2	3.0	3.0	0.0	100	325
Second	74.5	4.9	8.8	6.7	4.6	0.6	100	342
Middle	57.8	6.8	7.8	11.8	13.9	1.9	100	313
Fourth	40.2	9.8	8.8	16.1	24.3	0.7	100	317
Richest	24.2	6.4	13.4	23.4	31.4	1.3	100	274
<b>Total</b>	57.9	6.7	8.0	11.8	14.8	0.9	100	1,570

<sup>1</sup> MICS indicator 5.5b; MDG indicator 5.5

<sup>a</sup>Total includes 4 unweighted cases of women missing information on mother's age at birth who are not shown separately

The types of services pregnant women received during antenatal care are shown in Table RH.8. Among those women who had a live birth during the two years preceding the survey who attended ANC, 28 percent reported that a blood sample was taken during ANC visits, 39 percent reported that their blood pressure was checked and in 28 percent of cases a urine specimen was taken. Nearly one in four (23 percent) women had all the three checks – blood and urine samples taken and blood pressure measured. More women (51 percent) in the richest households had all the three checks

done compared to 6 percent from the poorest households. Moreover, only 18 percent of women with no education had all the three checks done compared to 57 percent of women with secondary or higher education level.

**Table RH.8: Content of antenatal care<sup>8</sup>**

Percentage of women age 15-49 years who had their blood pressure measured, urine sample taken, and blood sample taken as part of antenatal care, Somaliland, 2011

	Percentage of pregnant women who had:				
	Blood pressure measured	Urine sample taken	Blood sample taken	Blood pressure measured, urine and blood sample taken <sup>1</sup>	Number of women who had a live birth in the preceding two years
<b>Region</b>					
Maroodijeex/Saaxil	46.8	35.1	34.6	29.4	715
Awdal	40.7	30.4	30.8	25.8	244
Togdheer	31.5	19.6	19.9	16.8	321
Sool	28.6	20.8	24.7	19.5	90
Sanaag	23.6	12.1	14.7	10.2	200
<b>Area</b>					
Urban	57.4	42.4	42.5	36.4	758
Rural	21.3	13.5	14.3	10.9	812
<b>Mother's age at birth<sup>a</sup></b>					
Less than 20	31.5	24.3	26.1	23.6	152
20-34	40.0	28.3	29.0	23.8	1,180
35-49	37.1	25.1	23.4	20.1	234
<b>Education</b>					
None	32.8	22.2	22.9	18.2	1,237
Primary	56.5	41.6	42.4	37.8	260
Secondary+	74.7	65.4	61.5	57.3	73
<b>Wealth index quintile</b>					
Poorest	12.6	7.1	8.8	6.1	325
Second	21.9	14.0	14.9	10.6	342
Middle	38.8	25.8	25.9	22.6	313
Fourth	54.5	39.5	38.3	31.2	317
Richest	72.3	56.4	57.1	50.7	274
Total	38.7	27.5	27.9	23.2	1,570

<sup>1</sup> MICS indicator 5.6

<sup>a</sup>Total includes 4 unweighted cases of women missing information on mothers age at birth who are not shown separately

## Assistance at Delivery

Three quarters of all maternal deaths occur during delivery and the immediate post-partum period. The single most critical intervention for safe motherhood is to ensure a competent health worker with midwifery skills is present at every birth, and transport is available to a referral facility for obstetric care in case of emergency. A World Fit for Children goal is to ensure that women have ready and affordable access to skilled attendance at delivery. The indicators are the proportion of births with a skilled attendant and proportion of institutional deliveries. The skilled attendant at delivery indicator is also used to track progress toward the Millennium Development target of reducing the maternal mortality ratio by three quarters between 1990 and 2015.

The MICS included a number of questions to assess the proportion of births attended by a skilled attendant. A skilled attendant includes a doctor, nurse, midwife or auxiliary midwife (who are also skilled birth attendants).

About 44 percent of the last births to women occurring in the two years preceding the survey were delivered by skilled personnel (Table RH.9). This percentage is highest in Maroodijex/Sahil at 57 percent and lowest in Sanaag region at 25 percent. The more educated a woman is, the more likely she is to have delivered with the assistance of a skilled attendant; 89 percent of women with secondary or higher education delivered with the assistance of a skilled attendant compared to 38 percent among women with no education.

The main providers of skilled delivery service in the Somaliland MICS 4 survey were a medical doctor (19 percent) and a nurse/midwife (21 percent). About 4 percent of births in the two years preceding the MICS survey are delivered with assistance of an auxiliary midwife. Overall, about 44 percent of births are delivered by skilled attendants. Maroodijex/Sahil region has the highest proportion of deliveries attended by a skilled attendant: 57 percent of the births of which 30 percent were attended by medical doctors, 23 percent by nurse/midwife and 4 percent by auxiliary midwife. In Sanaag region 51 percent of births are delivered by a traditional birth attendant and only six percent of births by a medical doctor. In the other regions, between three and six percent of births are delivered with the assistance of an auxiliary midwife while 8 - 16 percent are delivered by a doctor.

Four percent of women delivered through C-section. This mode of delivery was influenced by education and wealth status of the women. Women with secondary or higher education and in richest households (11 percent for each case) delivered by C-section compared with 3 percent of those with no education and less than one percent among the poorest.

**Table RH.9: Assistance during delivery<sup>8</sup>**

Percent distribution of women age 15-49 who had a live birth in the two years preceding the survey by person assisting at delivery and percentage of births delivered by C-section, Somaliland, 2011

	Person assisting at delivery							Delivery assisted by any skilled attendant <sup>1</sup>	Percent delivered by C-section <sup>2</sup>	Number of women who had a live birth in preceding two years		
	Medical doctor	Nurse/ Midwife	Auxiliary midwife	Traditional birth attendant	Community health worker	Relative/Friend	Other	No attendant	Total			
<b>Region</b>												
Maroodijeex/Saaxil	29.8	23.4	3.8	31.6	1.1	5.8	3.7	0.9	100.0	57.0	6.7	715
Awdal	15.8	25.3	3.4	43.1	1.3	9.0	2.1	0.0	100.0	44.5	3.2	244
Togdheer	10.3	16.0	2.8	52.1	0.6	14.2	2.0	1.9	100.0	29.2	1.5	321
Sool	7.6	21.1	6.1	50.2	0.9	10.3	3.9	0.0	100.0	34.7	2.1	90
Sanaag	6.0	14.9	4.5	50.5	0.5	18.8	2.7	2.0	100.0	25.4	0.5	200
<b>Area</b>												
Urban	33.7	33.3	3.9	20.4	1.3	4.1	2.6	0.7	100.0	70.9	7.4	758
Rural	5.9	9.5	3.6	60.4	0.7	15.4	3.3	1.3	100.0	19.0	0.9	812
<b>Mother's age at birth<sup>a</sup></b>												
Less than 20	21.1	15.6	4.9	37.6	1.9	15.5	2.8	0.7	100.0	4.4	2.0	152
20-34	20.2	20.4	3.9	41.2	0.9	9.3	3.0	1.0	100.0	3.7	4.4	1180
35-49	12.9	27.5	2.1	43.0	0.5	9.9	2.5	1.7	100.0	42.5	3.7	234
<b>Place of delivery</b>												
Public sector health facility	57.2	37.8	1.7	0.0	2.0	0.0	1.3	0.0	100.0	96.7	12.3	295
Private sector health facility	56.8	39.4	1.6	0.5	1.6	0.0	0.0	0.0	100.0	97.9	13.7	185
Home	2.5	13.7	4.8	60.9	0.5	14.6	1.5	1.5	100.0	21.0	0.0	1,055
Other	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	(*)	(*)	5
Missing/DK	(6.7)	(0.0)	(0.0)	(3.3)	(3.3)	(0.0)	(86.7)	(0.0)	100.0	(6.7)	(6.7)	30
<b>Education</b>												
None	15.7	17.6	4.2	45.8	0.9	11.7	3.0	1.1	100.0	37.6	3.2	1,237
Primary	27.3	33.4	1.5	27.5	1.4	4.2	3.5	1.1	100.0	62.3	6.3	260
Secondary+	52.2	34.2	2.8	8.4	0.0	1.1	1.3	0.0	100.0	89.2	10.7	73
<b>Wealth index quintiles</b>												
Poorest	2.3	4.2	3.0	64.2	0.3	19.8	4.6	1.7	100.0	9.4	0.3	325
Second	8.2	8.4	3.7	61.0	1.2	14.4	1.9	1.2	100.0	20.2	1.2	342
Middle	14.0	22.4	5.9	43.3	0.9	9.2	2.4	1.8	100.0	42.3	3.2	313
Fourth	31.6	33.6	4.1	23.1	0.6	3.6	3.4	0.0	100.0	69.3	5.6	317
Richest	45.4	40.4	1.8	6.9	1.7	1.0	2.5	0.4	100.0	87.5	11.3	274
<b>Total</b>	<b>19.3</b>	<b>21.0</b>	<b>3.7</b>	<b>41.0</b>	<b>0.9</b>	<b>9.9</b>	<b>3.0</b>	<b>1.0</b>	<b>100.0</b>	<b>44.1</b>	<b>4.0</b>	<b>1,570</b>

<sup>1</sup> MICS indicator 5.7; MDG indicator 5.2<sup>2</sup> MICS indicator 5.9<sup>a</sup>Total includes 4 unweighted cases of women missing information on mothers age at birth who are not shown separately

(\*) Figures that are based on less than 25 unweighted cases

( ) Figures that are based on 25 – 49 unweighted cases

## **Place of Delivery**

Increasing the proportion of births that are delivered in health facilities is an important factor in reducing the health risks to both the mother and the baby. Proper medical attention and hygienic conditions during delivery can reduce the risks of complications and infection that can cause morbidity and mortality to either the mother or the baby. Table RH.10 presents the percent distribution of women age 15-49 who had a live birth in the two years preceding the survey by place of delivery and the percentage of births delivered in a health facility, according to background characteristics.

About 31 percent of births in Somaliland are delivered in a health facility; 19 percent of deliveries occur in public sector facilities and 12 percent occur in private sector facilities. The percentage of women in urban areas delivering in health facilities is higher than their rural counterparts; (54 percent against 9 percent). Maroodijeex/Sahil region has the highest proportion of institutional deliveries (47 percent), followed by Awdal region (27 percent), while Sanaag region has the lowest proportion (9 percent). Women with higher levels of educational attainment are more likely to deliver in a health facility than women with less education or no education. The proportion of births occurring in a health facility increases steadily with increasing wealth quintile, from 4 percent of births in the lowest wealth quintile to 73 percent among those in the highest quintile. More than half (67 percent) of the deliveries in Somaliland occur at home. The proportion of those who delivered at home is highest in Sanaag region (90 percent) and lowest in Maroodijeex/Sahil region (50 percent). .

**Table RH.10: Place of delivery<sup>8</sup>**

Percent distribution of women age 15-49 who had a live birth in two years preceding the survey by place of delivery, Somaliland, 2011

	Place of delivery					Delivered in health facility <sup>1</sup>	Number of women who had a live birth in preceding two years
	Public sector health facility	Private sector health facility	Home	Other	Missing/DK		
<b>Region</b>							
Maroodijeex/Saaxil	27.2	20.0	49.5	0.3	3.1	100.0	47.1
Awdal	22.0	4.9	72.3	0.0	0.9	100.0	26.8
Togdheer	8.0	5.3	85.4	0.7	0.6	100.0	13.3
Sool	12.4	6.6	79.2	0.9	0.9	100.0	19.0
Sanaag	5.2	3.5	89.7	0.0	1.6	100.0	8.7
<b>Area</b>							
Urban	31.9	22.3	43.2	0.4	2.3	100.0	54.2
Rural	6.6	2.0	89.6	0.3	1.6	100.0	8.5
<b>Mother's age at birth</b>							
Less than 20	24.4	5.7	67.8	0.0	2.1	100.0	30.1
20-34	18.9	12.3	66.4	0.4	2.0	100.0	31.2
35-49	14.1	13.3	71.8	0.0	0.8	100.0	27.4
<b>Number of antenatal care visits</b>							
None	9.1	3.5	84.6	0.3	2.4	100.0	12.7
1-3 visits	28.5	22.8	48.0	0.0	0.7	100.0	51.3
4+ visits	39.3	23.7	34.6	0.8	1.7	100.0	62.9
Missing/DK	(*)	(*)	(*)	(*)	(*)	100.0	(*)
<b>Education</b>							
None	16.4	8.8	72.4	0.4	1.9	100.0	25.2
Primary	24.6	19.4	54.1	0.0	1.9	100.0	43.9
Secondary+	38.7	34.5	25.6	0.0	1.3	100.0	73.1
<b>Wealth index quintiles</b>							
Poorest	3.6	0.3	93.8	0.3	2.0	100.0	3.9
Second	5.8	3.6	89.4	0.3	0.9	100.0	9.4
Middle	20.1	5.5	72.2	0.3	1.9	100.0	25.6
Fourth	32.2	17.0	48.6	0.0	2.1	100.0	49.3
Richest	36.0	36.5	24.0	0.6	2.9	100.0	72.5
Total	18.8	11.8	67.2	0.3	1.9	100.0	30.6
<sup>1</sup> MICS indicator 5.8							

## IX. Child Development

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### Early Childhood Education and Learning

Readiness of children for primary school can be improved through attendance to early childhood education programmes or through pre-school attendance. Early childhood education programmes include programmes for children that have organised learning components as opposed to baby-sitting and day-care which do not typically have organised education and learning opportunities.

Attendance to an organised early childhood education programme in Somaliland is almost non-existent. Only 3 percent of children aged 36-59 months had opportunity to attend an organised early childhood education programme in Somaliland (Table CD.1). Attendance is more prevalent in Maroodijeex/Saaxil region (5 percent), and non-existent in the Sanaag region. No gender differential exists, but differentials by socioeconomic status are seen. Nine percent of children living in rich households attend such programmes, while the figure drops to less than 1 percent in poor households.

<b>Table CD.1: Early childhood education</b>			
Percentage of children age 36-59 months who are attending an organized early childhood education programme, Somaliland , 2011			
	Percentage of children age 36-59 months currently attending early childhood education <sup>1</sup>	Number of children age 36-59 months	
<b>Sex</b>			
Male	3.0	1,006	
Female	2.5	975	
<b>Region</b>			
Maroodijeex/Saaxil	4.5	910	
Awdal	3.1	287	
Togdheer	1.0	397	
Sool	0.9	90	
Sanaag	0.0	297	
<b>Area</b>			
Urban	4.7	947	
Rural	1.0	1,033	
<b>Age of child</b>			
36-47 months	1.7	1,067	
48-59 months	4.0	914	
<b>Mother's education</b>			
None	1.9	1,637	
Primary	6.5	256	
Secondary+	8.8	88	
<b>Wealth index quintile</b>			
Poorest	0.5	443	
Second	0.9	458	
Middle	1.9	409	
Fourth	3.7	359	
Richest	8.7	311	
Total	2.8	1,981	

<sup>1</sup> MICS indicator 6.7

It is well recognized that a period of rapid brain development occurs in the first 3-4 years of life, and the quality of home care is the major determinant of the child's development during this period. In this context, engagement of adults in activities with children, presence of books in the home for the child, and the conditions of care are important indicators of quality of home care. Children should be physically healthy, mentally alert, emotionally secure, socially competent and ready to learn.

Information on a number of activities that support early learning was collected in the survey. These included the involvement of adults with children in the following activities: reading books or looking at picture books, telling stories, singing songs, taking children outside the home, compound or yard, playing with children, and spending time with children naming, counting, or drawing things.

For two-thirds (65 percent) of children aged 3 to 5 years, an adult household member engaged in four or more activities that promote learning and school readiness during the 3 days preceding the survey (Table CD.2). The average number of activities that adults engaged with children was 4. The table also indicates that the father's involvement in such activities was somewhat limited. Father's involvement with one or more activities was 31 percent. One quarter of the children were living in a household without their fathers.

**Table CD.2: Support for learning**

Percentage of children age 36-59 months with whom an adult household member engaged in activities that promote learning and school readiness during the last three days, Somaliland, 2011

	Percentage of children age 36-59 months		Mean number of activities		Percentage of children not living with their natural father	Number of children age 36-59 months
	With whom adult household members engaged in four or more activities <sup>1</sup>	With whom the father engaged in one or more activities <sup>2</sup>	Any adult household member engaged with the child	The father engaged with the child		
<b>Sex</b>						
Male	67.5	33.9	3.8	0.6	23.2	1,006
Female	63.0	27.9	3.7	0.5	26.4	975
<b>Region</b>						
Maroodijeex/Saaxil	60.6	28.8	3.5	0.5	23.7	910
Awdal	59.3	27.3	3.6	0.5	16.9	287
Togdheer	75.6	35.5	4.1	0.6	26.9	397
Sool	75.8	38.5	4.1	0.9	30.0	90
Sanaag	68.1	32.5	3.8	0.7	30.9	297
<b>Area</b>						
Urban	66.1	32.2	3.8	0.6	24.8	947
Rural	64.5	29.7	3.7	0.5	24.7	1,033
<b>Age</b>						
36-47 months	65.6	30.6	3.7	0.6	24.1	1,067
48-59 months	64.8	31.2	3.7	0.6	25.6	914
<b>Mother's education</b>						
None	64.2	29.7	3.7	0.5	25.4	1,637
Primary	69.6	33.8	4.0	0.6	22.0	256
Secondary+	71.1	45.5	4.2	0.9	21.0	88
<b>Father's education</b>						
None	61.4	34.1	3.5	0.6	na	834
Primary	63.9	40.5	3.7	0.7	na	254
Secondary+	72.7	48.9	4.1	0.9	na	333
Father not in household	66.4	8.3	3.8	na	na	490
Missing/DK	71.9	31.0	3.9	0.5	na	69
<b>Wealth index quintiles</b>						
Poorest	60.9	25.8	3.5	0.5	22.1	443
Second	62.3	29.4	3.7	0.5	24.9	458
Middle	66.7	35.3	3.8	0.6	24.4	409
Fourth	67.0	28.7	3.7	0.6	27.4	359
Richest	71.7	37.1	4.1	0.8	25.8	311
Total	65.2	30.9	3.7	0.6	24.8	1,981

<sup>1</sup> MICS indicator 6.1

<sup>2</sup> MICS Indicator 6.2

There are no gender differentials in terms of engagement of adults in activities with children; Urban-rural differentials were minimal with a slightly higher engagement by urban fathers than their rural counterparts. Slight gender differentials exist in terms of engagement of adults in activities with children. There was a higher proportion of male children (34 percent) with whom fathers engaged one or more activity compared to female children (28 percent). Differentials by region and socio-economic status are also observed: Adult engagement in activities with children was greatest in the Togdheer and Sool regions (76 percent each) and lowest in the Awdal region (59 percent), while the proportion was 72 percent for children living in the richest households, as opposed to those living in the poorest households (61 percent). The proportion of children with whom adults engaged in four or more activities is highest among those whose mothers have secondary or higher levels of education compared to those with primary or no education. Father's involvement showed a similar pattern in terms of adults' engagement in such activities.

Exposure to books in early years not only provides the child with greater understanding of the nature of print, but may also give the child opportunities to see others reading, such as older siblings doing school work. Presence of books is important for later school performance. The mother/caretaker of all children under5 were asked about number of children's books or picture books they have for the child, household objects or outside objects, and homemade toys or toys that came from a shop that are available at home.

In Somaliland, only 1 percent of children age 0-59 months lives in households where at least 3 children's books are present for the child (Table CD.3). The proportion of children with 10 or more books is 0.5 percent. There are no gender differentials and the figures are very low across all regions as well as in rural and urban areas, to make any meaningful comparison. In general, support for learning is very low in Somaliland according to this survey.

**Table CD.3: Learning materials**

Percentage of children under age 5 by numbers of children's books present in the household, and by playthings that child plays with, Somaliland, 2011

	Household has for the child:		Child plays with:			Two or more types of playthings <sup>2</sup>	Number of children under age 5
	3 or more children's books <sup>1</sup>	10 or more children's books	Homemade toys	Toys from a shop/manufactured toys	Household objects/objects found outside		
<b>Sex</b>							
Male	1.1	0.5	5.8	8.4	30.3	6.6	2,395
Female	1.5	0.4	6.6	8.5	31.3	7.1	2,277
<b>Region</b>							
Maroodijeex/Saaxil	1.8	0.5	7.2	11.3	29.1	8.0	2,074
Awdal	1.9	0.7	7.3	8.8	30.0	7.1	727
Togdheer	0.6	0.4	3.7	5.2	31.5	4.5	948
Sool	0.0	0.0	4.1	3.7	21.2	4.4	262
Sanaag	0.4	0.2	6.2	5.8	40.1	6.9	661
<b>Area</b>							
Urban	2.2	0.9	8.7	14.5	30.7	10.3	2,256
Rural	0.4	0.0	3.9	2.8	30.9	3.5	2,416
<b>Age</b>							
0-23 months	0.3	0.1	3.5	4.6	14.0	3.0	1,704
24-59 months	1.8	0.7	7.7	10.7	40.5	9.0	2,968
<b>Mother's education<sup>a</sup></b>							
None	0.8	0.3	5.3	6.3	31.5	5.6	3,745
Primary	2.5	0.8	9.8	16.8	29.1	11.6	709
Secondary+	5.4	1.3	10.4	19.3	24.7	11.7	217
<b>Wealth index quintiles</b>							
Poorest	0.0	0.0	2.7	0.5	29.3	2.1	995
Second	0.2	0.1	3.1	1.6	32.2	2.4	1,055
Middle	0.6	0.0	5.7	5.3	32.5	5.3	940
Fourth	2.0	0.8	7.9	13.5	30.7	10.6	916
Richest	4.4	1.6	13.7	26.0	29.1	16.3	766
Total	1.3	0.5	6.2	8.5	30.8	6.8	4,672

<sup>1</sup> MICS indicator 6.3

<sup>2</sup> MICS indicator 6.4

<sup>a</sup>Total includes 3 unweighted cases of children missing information on mothers' education who not shown separately

(\*) Figures that are based on less than 25 unweighted cases

Table CD.3 also shows that 7 percent of children aged 0-59 months had 2 or more types of playthings to play with in their homes. The types of playthings in MICS included homemade toys (such as dolls and cars, or other toys made at home), toys that came from a store, and household objects (such as pots and bowls) or objects and materials found outside the home (such as sticks, rocks, animal shells, or leaves). It is interesting to note that 9 percent of children play with toys that come from a store; while, the percentages for homemade toys is 6 percent. The proportion of children who have 2 or more types of playthings is similar for males and females (7 percent). One in every ten children in urban areas has two or more types of play things compared to 4 percent in the rural areas. The proportion of children with two or more types of playthings among children whose mothers have no education (6 percent) is about half that of mothers with primary or secondary education (12 percent). Differentials exist by socioeconomic status of the households, and by regions.

Leaving children alone or in the care of other young children is known to increase the risk of accidents. In MICS, two questions were asked to find out whether children aged 0-59 months were left alone during the week preceding the interview, and whether children were left in the care of other children under 10 years of age.

Table CD.4 shows that 24 percent of children aged 0-59 months were left in the care of other children, while 13 percent were left alone during the week preceding the interview. Combining the two care indicators, it is calculated that 27 percent of children were left with inadequate care during the week preceding the survey, either by being left alone or in the care of another child. No differences were observed by the sex of the child or between urban and rural areas. Children aged 24-59 months were left with inadequate care more (33 percent) than those who were aged 0-23 months (17 percent). The least percentage of children left with inadequate care was in the richest compared with households in other wealth index quintiles.

**Table CD.4: Inadequate care**

Percentage of children under age 5 left alone or left in the care of another child younger than 10 years of age for more than one hour at least once during the past week, Somaliland, 2011

	Percentage of children under age 5			
	Left alone in the past week	Left in the care of another child younger than 10 years of age in the past week	Left with inadequate care in the past week <sup>1</sup>	Number of children under age 5
<b>Sex</b>				
Male	11.8	24.5	27.4	2,395
Female	13.2	23.3	27.2	2,277
<b>Region</b>				
Maroodijeex/Saaxil	12.6	22.0	25.5	2,074
Awdal	12.3	23.4	27.9	727
Togdheer	12.1	24.2	26.9	948
Sool	9.9	25.4	27.8	262
Sanaag	14.1	29.4	32.8	661
<b>Area</b>				
Urban	11.4	21.9	25.7	2,256
Rural	13.5	25.8	28.8	2,416
<b>Age</b>				
0-23 months	7.1	14.4	16.9	1,704
24-59 months	15.6	29.4	33.3	2,968
<b>Mother's education<sup>a</sup></b>				
None	12.6	24.6	27.5	3,745
Primary	13.8	20.8	27.0	709
Secondary+	6.9	22.8	25.1	217
<b>Wealth index quintiles</b>				
Poorest	12.8	23.8	27.3	995
Second	15.6	28.4	31.4	1,055
Middle	14.8	26.7	30.7	940
Fourth	11.1	22.6	26.1	916
Richest	6.7	16.1	19.0	766
Total	12.5	23.9	27.3	4,672

**1 MICS indicator 6.5**

<sup>a</sup>Total includes 2 unweighted cases of children missing information on mother's education who are not shown separately

## **Early Childhood Development**

Early child development is defined as an orderly, predictable process along a continuous path, in which a child learns to handle more complicated levels of moving, thinking, speaking, feeling and relating to others. Physical growth, literacy and numeracy skills, socio-emotional development and readiness to learn are vital domains of a child's overall development, which is a basis for overall human development.

A 10-item module that has been developed for the MICS programme was used to calculate the Early Child Development Index (ECDI). The indicator is based on some benchmarks that children would be expected to have if they are developing as the majority of children in that age group. The primary purpose of the ECDI is to inform public policy regarding the developmental status of children in Somaliland.

Each of the 10 items is used in one of the four domains, to determine if children are developmentally on track in that domain. The domains in question are:

- Literacy-numeracy: Children are identified as being developmentally on track based on whether they can identify/name at least ten letters of the alphabet, whether they can read at least four simple, popular words, and whether they know the name and recognize the symbols of all numbers from 1 to 10. If at least two of these are true, then the child is considered developmentally on track.
- Physical: If the child can pick up a small object with two fingers, like a stick or a rock from the ground and/or the mother/caretaker does not indicate that the child is sometimes too sick to play, then the child is regarded as being developmentally on track in the physical domain.
- Social-emotional: Children are considered to be developmentally on track if two of the following are true: If the child gets along well with other children, if the child does not kick, bite, or hit other children and if the child does not get distracted easily
- Learning: If the child follows simple directions on how to do something correctly and/or when given something to do, is able to do it independently, then the child is considered to be developmentally on track in this domain.

ECDI is then calculated as the percentage of children who are developmentally on track in at least three of these four domains.

The results are presented in Table CD.5. In Somaliland, 59 percent of children aged 36-59 months are developmentally on track. ECDI is higher among girls (62 percent) than boys (55 percent). As expected, ECDI is higher in the older age group (65 percent among 48-59 months old compared to 53 percent among 36-47 months old), since children develop more skills with increasing age. Higher ECDI is seen in children attending an early childhood education programme (91 percent compared to 58 percent for those who are not attending). Children living in poorest households have lower ECDI (55 percent) compared to children living in richest households (64 percent). The analysis of four domains of child development shows that 87 percent of children are on track in the learning, 86 percent in the physical and 63 percent in the social-emotional domains, with much less in literacy-numeracy (25 percent) domain. In each individual domain the higher score is observed among older children (age 48 – 59), as expected.

**Table CD.5: Early child development index**

Percentage of children age 36-59 months who are developmentally on track in literacy-numeracy, physical, social-emotional, and learning domains, and the early child development index score, Somaliland, 2011

	Percentage of children age 36-59 months who are developmentally on track for indicated domains				Early child development index score <sup>1</sup>	Number of children age 36-59 months
	Literacy-numeracy	Physical	Social-Emotional	Learning		
<b>Sex</b>						
Male	24.4	84.7	59.4	85.9	54.9	1,006
Female	24.5	86.9	66.1	87.1	62.1	975
<b>Region</b>						
Maroodijeex/Saaxil	31.5	86.4	65.0	86.0	61.9	910
Awdal	22.2	89.5	62.7	90.2	60.5	287
Togdheer	19.9	85.4	59.2	88.7	57.2	397
Sool	8.5	78.7	45.6	80.2	33.7	90
Sanaag	15.8	82.7	65.5	83.4	55.5	297
<b>Area</b>						
Urban	31.9	85.1	61.5	87.1	60.0	947
Rural	17.6	86.3	63.8	86.0	57.1	1,033
<b>Age</b>						
36-47 months	18.5	84.0	60.0	83.2	53.3	1,067
48-59 months	31.4	87.8	65.9	90.3	64.5	914
<b>Preschool attendance</b>						
Attending preschool	89.3	94.5	74.9	96.5	91.0	55
Not attending preschool	22.6	85.5	62.4	86.2	57.6	1,926
<b>Mother's education</b>						
None	22.1	85.6	63.3	86.0	57.1	1,637
Primary	31.3	86.9	62.8	89.1	65.1	256
Secondary+	48.6	85.7	52.2	88.8	65.3	88
<b>Wealth index quintiles</b>						
Poorest	15.8	86.0	62.8	84.1	55.3	443
Second	16.2	86.6	67.6	89.7	61.2	458
Middle	23.9	83.5	60.4	83.7	54.6	409
Fourth	31.3	87.8	58.7	87.6	59.0	359
Richest	41.8	84.7	63.1	87.6	63.5	311
Total	24.5	85.7	62.7	86.5	58.5	1,981

<sup>1</sup> MICS indicator 6.6

## X. Literacy and Education

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### Literacy among Young Women

One of the World Fit for Children goals is to assure adult literacy. Adult literacy is also an MDG indicator, relating to both men and women. In MICS4, since only a women's questionnaire was administered, the results are based only on females age 15-24. Literacy is assessed on the ability of the respondent to read a short simple statement or based on school attendance. The percent literate is presented in Table ED.1. Forty four percent of women in Somaliland are literate and literacy status varies greatly by area (54 percent in urban areas vs. 27 percent in rural areas). Of women who stated that primary school was their highest level of education, 74 percent were able to read the statement shown to them. Literacy among women also varies by age with 50 percent of the women aged 15 -19 years being literate compared to 36 percent of women aged 20 – 24 years. Wealth status is a great determinant of whether a woman is literate. Adult literacy is much higher among women from the richest households than those from the poorest households: 65 versus 14 percent. Awdal region has the highest level of literacy (51 percent) and Togdheer region has the lowest literacy level (36 percent)

<b>Table ED.1: Literacy among young women</b>			
Percentage of women age 15-24 years who are literate, Somaliland, 2011			
	Percentage literate <sup>1</sup>	Percentage not known	Number of women age 15-24 years
<b>Region</b>			
Maroodijeex/Saaxil	47.8	1.9	1,322
Awdal	50.7	0.6	363
Togdheer	35.6	1.3	487
Sool	37.7	2.8	133
Sanaag	36.5	0.4	295
<b>Area</b>			
Urban	53.8	1.6	1,649
Rural	27.3	1.3	950
<b>Education</b>			
None	7.8	0.4	1,354
Primary	73.6	4.3	778
Secondary+	100.0	0.0	468
<b>Age</b>			
15-19	50.3	1.8	1,451
20-24	36.2	1.1	1,148
<b>Wealth index quintile</b>			
Poorest	14.1	0.3	316
Second	22.4	1.0	409
Middle	40.6	2.1	483
Fourth	50.0	0.6	583
Richest	64.7	2.4	807
<b>Total</b>	<b>44.1</b>	<b>1.5</b>	<b>2,600</b>

<sup>1</sup> MICS indicator 7.1

## School Readiness

Attendance to pre-school education in an organised learning or child education programme is important for the readiness of children to school. Table ED.2 shows the proportion of children in the first grade of primary school who attended pre-school the previous year. Overall, only seven percent of children who are currently attending the first grade of primary school were attending pre-school the previous year. The proportion among males is higher (9 percent) than females (4 percent). Regional differentials are also apparent; 12 percent of first graders in Awdal region have attended pre-school during the previous school year compared to 1 percent in Togdheer region. Sanaag region has registered no cases of children in first grade attending pre-school in the previous school year. Socioeconomic status appears to give mixed and unexpected observations with the richest households having the lowest (3 percent) proportion of children in first grade attending preschool during the previous school year. This is even lower for children from the poorest households (7 percent). Pre-school attendance during the previous year was higher among children in the households in the fourth wealth index quintile.

<b>Table ED.2: School readiness</b>		
Percentage of children attending first grade of primary school who attended pre-school the previous year, Somaliland, 2011		
	Percentage of children attending first grade who attended preschool in previous year <sup>1</sup>	Number of children attending first grade of primary school
<b>Sex</b>		
Male	9.0	288
Female	4.1	297
<b>Region</b>		
Maroodijeex/Saaxil	7.9	289
Awdal	11.9	103
Togdheer	1.2	86
Sool	(*)	21
Sanaag	0.0	87
<b>Area</b>		
Urban	7.1	232
Rural	6.2	353
<b>Mother's education<sup>a</sup></b>		
None	6.7	451
Primary	7.1	100
Secondary+	(*)	21
Mother not in household	(*)	3
Missing/DK	(*)	11
<b>Wealth index quintile</b>		
Poorest	6.9	119
Second	6.3	165
Middle	3.4	93
Fourth	13.8	99
Richest	2.6	110
<b>Total</b>	<b>6.5</b>	<b>586</b>

<sup>1</sup> MICS indicator 7.2.

(\*) Figures that are based on less than 25 unweighted cases

## **Primary and Secondary School Participation**

Universal access to basic education and the achievement of primary education by the world's children is one of the most important goals of the Millennium Development Goals and A World Fit for Children. Education is a vital prerequisite for combating poverty, empowering women, protecting children from hazardous and exploitative labour and sexual exploitation, promoting human rights and democracy, protecting the environment, and influencing population growth.

The indicators for primary and secondary school attendance include:

- Net intake rate in primary education
- Primary school net attendance ratio (adjusted)
- Secondary school net attendance ratio (adjusted)
- Female to male education ratio (or gender parity index - GPI) in primary and secondary school

The indicators of school progression include:

- Children reaching last grade of primary
- Primary completion rate
- Transition rate to secondary school

In Somaliland, children enter primary school at age 6 and enter secondary school at age 14. There are 8 grades in primary school and 4 grades in secondary school. In primary school, grades are referred to as standard 1 to standard 8. For secondary school, grades are referred to as Form 1 to Form 4. The school year typically runs from September of one year to August of the following year.

Of children who are of primary school entry age (age 6) in Somaliland, 21 percent are attending the first grade of primary school (Table ED.3). Gender and urban-rural differentials are minimal; however, differentials are present by region. In Awdal region, for instance, the value of the indicator reaches 27 percent, while it is 11 percent in Sool region. A positive correlation with mother's education and socioeconomic status is observed; for children age 6 whose mothers have at least secondary school education, 29 percent were attending the first grade compared to 18 percent for mothers with no education. In the richest households, the proportion is around 31 percent, compared to 14 percent among children living in the poorest households.

**Table ED.3: Primary school entry**

Percentage of children of primary school entry age entering grade 1 (net intake rate), Somaliland, 2011		
	Percentage of children of primary school entry age entering grade 1 <sup>1</sup>	Number of children of primary school entry age
<b>Sex</b>		
Male	22.6	586
Female	18.3	532
<b>Region</b>		
Maroodijeex/Saaxil	21.7	505
Awdal	27.2	176
Togdheer	14.3	204
Sool	11.1	77
Sanaag	22.3	156
<b>Area</b>		
Urban	20.0	541
Rural	21.1	577
<b>Mother's education<sup>a</sup></b>		
None	17.7	895
Primary	32.7	168
Secondary+	28.8	54
<b>Wealth index quintile</b>		
Poorest	14.3	234
Second	21.0	228
Middle	17.8	252
Fourth	21.4	224
Richest	30.9	181
Total	20.6	1,118

<sup>1</sup> MICS indicator 7.3.<sup>a</sup>Total includes 2 unweighted cases of children missing information on mother's education that is not shown separately

Table ED.4 provides the percentage of children of primary school age 6 to 13 years who are attending primary or secondary school<sup>15</sup>. Just over half of children of primary school age are attending school (51 percent) and 49 percent of the children are out of school when they are expected to be participating in school. In urban areas 59 percent of children attend school while in rural areas only 43 percent are attending school. Primary school attendance varies widely with wealth social economic status as well as mother's education status. School attendance is highest among children living in households in the richest category (71 percent) compared to 28 percent of children in the poorest wealth quintile households. In addition, 76 percent of children whose mother have secondary or higher level of education attend primary or secondary school compared to 48 percent of children whose mother have no education. More boys of primary school age (55 percent) than girls (47 percent) attend primary or secondary school.

<sup>15</sup> Ratios presented in this table are "adjusted" since they include not only primary school attendance, but also secondary school attendance in the numerator.

<b>Table ED.4: Primary school attendance</b>						
Percentage of children of primary school age attending primary or secondary school (adjusted net attendance ratio), Somaliland, 2011						
	<b>Male</b>		<b>Female</b>		<b>Total</b>	
	Net attendance ratio (adjusted)	Number of children	Net attendance ratio (adjusted)	Number of children	Net attendance ratio (adjusted) <sup>1</sup>	Number of children
<b>Region</b>						
Maroodijeex/Saaxil	59.9	1,891	49.6	1,809	54.9	3,700
Awdal	65.2	572	60.3	595	62.7	1,167
Togdheer	45.1	766	37.3	800	41.1	1,566
Sool	46.2	237	32.8	243	39.4	480
Sanaag	48.0	564	46.5	543	47.3	1,107
<b>Area</b>						
Urban	64.8	2,045	53.6	2,079	59.1	4,124
Rural	45.7	1,985	40.5	1,912	43.1	3,896
<b>Age at beginning of school year</b>						
6	27.4	586	24.1	532	25.8	1,118
7	43.0	571	34.3	556	38.7	1,126
8	54.9	478	50.3	446	52.7	924
9	57.0	597	48.9	563	53.1	1,160
10	68.0	413	56.9	383	62.7	796
11	66.1	550	54.5	500	60.6	1,050
12	66.5	407	61.5	556	63.6	963
13	71.9	428	52.2	455	61.8	883
<b>Mother's education<sup>a</sup></b>						
None	51.1	3,321	43.9	3,246	47.5	6,567
Primary	73.2	511	59.4	509	66.3	1,020
Secondary+	81.9	193	70.0	216	75.6	410
<b>Wealth index quintile</b>						
Poorest	30.5	873	25.5	806	28.1	1,679
Second	49.8	808	41.7	789	45.8	1,596
Middle	57.9	847	47.9	821	52.9	1,668
Fourth	67.0	822	56.9	816	62.0	1,638
Richest	76.8	680	65.3	758	70.8	1,438
<b>Total</b>	55.4	4,029	47.3	3,991	51.4	8,020

<sup>1</sup> MICS indicator 7.4; MDG indicator 2.1.

(\*) Figures that are based on less than 25 unweighted cases

<sup>a</sup>Total includes 12 unweighted cases of children with missing information on mother not in the household and 12 unweighted cases of children with missing information on mothers education

The secondary school net attendance ratio is presented in Table ED.5<sup>16</sup>. Only 21 percent of the children of secondary school age are attending secondary school or higher.

Adjusted net attendance ratio among secondary school age children is highest in Maroodijeex/Sahil region (27 percent) and lowest in Togdheer region (10 percent).

A considerable urban-rural differential exists with 30 percent of secondary school age children in urban areas attending school compared to 7 percent of the rural children. Furthermore, secondary school attendance correlates positively with social economic status from less than 1 percent among

<sup>16</sup> Ratios presented in this table are "adjusted" since they include not only secondary school attendance, but also attendance to higher levels in the numerator.

the children from the poorest category to 42 percent of children in the richest category. Moreover, 43 percent of children whose mothers have secondary or more education are attending secondary school compared to 16 percent of children whose mothers have no education.

The percentage of children entering first grade who eventually reach the last grade of primary school is presented in Table ED.6. Of all children starting grade one, fewer of them (28 percent) will eventually reach the last grade. Notice that this number includes children that repeat grades and that eventually move up to reach last grade.

**Table ED.5: Secondary school attendance**

Percentage of children of secondary school age attending secondary school or higher (adjusted net attendance ratio) and percentage of children attending secondary school, Somaliland, 2011

	Male			Female			Total		
	Net attendance ratio (adjusted) <sup>1</sup>	Percent attending primary school	Number of children	Net attendance ratio (adjusted) <sup>1</sup>	Percent attending primary school	Number of children	Net attendance ratio (adjusted) <sup>1</sup>	Percent attending primary school	Number of children
<b>Region</b>									
Maroodijeex/Saaxil	32.0	36.3	787	20.3	28.2	712	26.5	32.4	1,499
Awdal	24.6	44.2	205	23.0	29.2	210	23.8	36.6	415
Togdheer	13.3	40.0	326	6.4	28.8	274	10.1	34.9	601
Sool	22.4	29.7	80	8.3	33.2	76	15.5	31.4	156
Sanaag	11.7	31.3	186	10.8	28.0	186	11.3	29.7	372
<b>Area</b>									
Urban	36.3	38.4	887	24.3	27.9	892	30.3	33.1	1,779
Rural	9.1	35.6	697	3.6	29.8	567	6.6	33.0	1,264
<b>Age at beginning of school year</b>									
14	13.8	57.0	421	8.7	45.5	350	11.5	51.8	771
15	21.2	40.6	401	17.1	33.3	336	19.4	37.3	738
16	33.9	31.4	301	18.5	23.3	349	25.6	27.0	650
17	30.3	19.9	461	20.0	15.6	423	25.4	17.8	884
<b>Mother's education<sup>a</sup></b>									
None	19.7	43.7	727	12.4	35.8	597	16.4	40.1	1,323
Primary	28.7	54.7	106	24.5	44.4	98	26.7	49.8	204
Secondary+	46.9	33.6	59	38.2	48.5	58	42.6	41.0	117
Mother not in the household	19.6	43.7	227	11.1	24.6	275	15.0	33.2	502
Cannot be determined	30.1	20.0	464	19.8	15.4	429	25.2	17.8	892
<b>Wealth index quintile</b>									
Poorest	0.7	28.4	316	0.0	19.7	211	0.4	24.9	528
Second	7.3	45.2	282	2.0	29.5	254	4.8	37.8	536
Middle	20.8	41.6	313	10.7	34.6	286	16.0	38.3	599
Fourth	37.6	40.7	324	21.1	30.5	309	29.5	35.7	633
Richest	50.5	31.3	348	34.3	27.3	398	41.8	29.2	746
Total	24.3	37.2	1,584	16.3	28.7	1,459	20.5	33.1	3,043

<sup>1</sup> MICS indicator 7.5.<sup>a</sup>Total includes 5 unweighted cases of children missing information on mother's education who are not shown separately

**Table ED.6: Children reaching last grade of primary school**

Percentage of children entering first grade of primary school who eventually reach the last grade of primary school (Survival rate to last grade of primary school), Somaliland, 2011

	Percent attending grade 1 last school year who are in grade 2 this school year	Percent attending grade 2 last school year who are attending grade 3 this school year	Percent attending grade 3 last school year who are attending grade 4 this school year	Percent attending grade 4 last school year who are attending grade 5 this school year	Percent attending grade 5 last school year who are attending grade 6 this school year	Percent attending grade 6 last school year who are attending grade 7 this school year	Percent attending grade 7 last school year who are attending grade 8 this school year	Percent attending grade 8 last school year who are reaching grade 8 of those who enter grade 1 <sup>1</sup>
<b>Sex</b>								
Male	98.6	98.6	99.0	98.9	99.1	98.6	98.4	91.6
Female	98.2	98.0	98.3	96.7	97.3	96.7	98.8	85.1
<b>Region</b>								
Maroodijeex/Saaxil	99.2	99.0	98.2	99.1	97.8	97.8	97.5	89.1
Awdal	100.0	98.0	100.0	99.0	98.2	97.6	100.0	92.9
Togdheer	98.3	97.4	98.6	93.0	98.9	98.8	100.0	85.9
Sool	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Sanaag	94.5	96.9	97.9	98.9	100.0	96.1	98.5	83.9
<b>Area</b>								
Urban	100.0	98.7	99.6	99.3	99.0	98.4	98.3	93.4
Rural	97.0	97.8	97.6	96.2	97.0	96.3	99.4	82.7
<b>Mother's education<sup>a</sup></b>								
None	98.5	98.7	99.3	98.6	98.9	99.7	99.1	93.1
Primary	98.5	100.0	97.8	99.0	100.0	98.5	100.0	94.0
Secondary+	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Wealth index quintile</b>								
Poorest	96.3	95.9	97.0	93.3	95.6	96.1	100.0	76.7
Second	96.8	98.8	97.7	95.6	98.7	98.6	98.5	85.6
Middle	98.9	99.5	97.8	98.8	97.6	95.6	100.0	88.8
Fourth	100.0	98.0	100.0	98.7	99.3	97.6	98.4	92.3
Richest	100.0	98.8	100.0	100.0	98.8	99.4	97.6	94.7
Total	98.4	98.3	98.7	98.0	98.4	97.8	98.6	88.7

<sup>1</sup> MICS indicator 7.6; MDG indicator 2.2

<sup>a</sup> In total there are 12 unweighted cases of children attending primary school with no mother in the household. The results are therefore not shown.

**Table ED.7: Primary school completion and transition to secondary school**

Primary school completion rates and transition rate to secondary school, Somaliland, 2011

	Primary school completion rate <sup>1</sup>	Number of children of primary school completion age	Transition rate to secondary school <sup>2</sup>	Number of children who were in the last grade of primary school the previous year
<b>Sex</b>				
Male	85.1	428	80.9	116
Female	52.8	455	68.6	70
<b>Region</b>				
Maroodijeex/Saaxil	74.6	420	74.1	102
Awdal	86.3	129	(80.4)	40
Togdheer	56.1	174	(*)	21
Sool	52.6	52	(*)	3
Sanaag	51.1	108	(*)	21
<b>Area</b>				
Urban	89.6	492	77.0	156
Rural	41.9	391	(72.6)	30
<b>Mother's education</b>				
None	40.8	717	83.7	83
Primary	70.6	98	(*)	16
Secondary+	79.0	56	(*)	14
<b>Wealth index quintile</b>				
Poorest	24.7	157	(*)	2
Second	37.0	181	(*)	17
Middle	74.3	169	(80.0)	35
Fourth	90.0	196	74.0	57
Richest	109.1	180	78.2	75
<b>Total</b>	<b>68.5</b>	<b>883</b>	<b>76.3</b>	<b>186</b>

<sup>1</sup> MICS indicator 7.7<sup>2</sup> MICS indicator 7.8

() Figures that are based on 25 – 49 unweighted cases

(\*) Figures that are based on less than 25 unweighted cases

The primary school completion rate and transition rate to secondary education are presented in Table ED.7. The primary completion rate is the ratio of the total number of students, regardless of age, entering the last grade of primary school for the first time, to the number of children of the primary graduation age at the beginning of the current (or most recent) school year. At the moment of the survey, the primary school completion rate is 69 percent. Primary school completion rate is highest among boys (85 percent) compared to girls (53 percent) and is more than twice (90 percent) among urban children compared to rural children (42 percent). Majority of children (79 percent) whose mothers have secondary or more education complete primary school compared to 41 percent of children whose mothers have not education.

Overall 76 percent of the children that completed successfully the last grade of primary school were found at the time of the survey to be attending the first grade of secondary school. More boys than girls transition to secondary school. The small sample of grade one secondary school does not allow for fair comparison for the background characteristics in Table ED.7.

The ratio of girls to boys attending primary and secondary education is provided in Table ED.8. These ratios are better known as the Gender Parity Index (GPI). Notice that the ratios included here are obtained from net attendance ratios rather than gross attendance ratios. The last ratios provide an erroneous description of the GPI mainly because in most of the cases the majority of over-aged children attending primary education tend to be boys. The table shows that gender parity for primary school is 0.85 indicating little difference in the attendance of girls and boys to primary school. However, the indicator drops to 0.67 for secondary education. For secondary education, the disadvantage of girls is particularly pronounced in Sool region, as well as among children living in the poorest households and rural areas. Education of the mother/caretaker is an important determinant

of secondary school gender parity index and ranges from 0.63 for children whose mothers have no education to 0.81 among children of mothers with secondary or more education.

<b>Table ED.8: Education gender parity</b>						
Ratio of adjusted net attendance ratios of girls to boys, in primary and secondary school, Somaliland, 2011						
	Primary school adjusted net attendance ratio (NAR), girls	Primary school adjusted net attendance ratio (NAR), boys	Gender parity index (GPI) for primary school adjusted NAR <sup>1</sup>	Secondary school adjusted net attendance ratio (NAR), girls	Secondary school adjusted net attendance ratio (NAR), boys	Gender parity index (GPI) for secondary school adjusted NAR <sup>2</sup>
<b>Region</b>						
Maroodijeex/Saaxil	49.6	59.9	0.83	20.3	32.0	0.64
Awdal	60.3	65.2	0.92	23.0	24.6	0.94
Togdheer	37.3	45.1	0.83	6.4	13.3	0.48
Sool	32.8	46.2	0.71	8.3	22.4	0.37
Sanaag	46.5	48.0	0.97	10.8	11.7	0.92
<b>Area</b>						
Urban	53.6	64.8	0.83	24.3	36.3	0.67
Rural	40.5	45.7	0.89	3.6	9.1	0.39
<b>Education of mother/caretaker<sup>a</sup></b>						
None	43.9	51.1	0.86	12.4	19.7	0.63
Primary	59.4	73.2	0.81	24.5	28.7	0.85
Secondary+	70.0	81.9	0.85	38.2	46.9	0.81
Mother not in the household	na	na	na	11.0	19.5	0.56
Cannot be determined	na	na	na	19.7	30.1	0.66
<b>Wealth index quintile</b>						
Poorest	25.5	30.5	0.83	0.0	0.7	0.00
Second	41.7	49.8	0.84	2.0	7.3	0.28
Middle	47.9	57.9	0.83	10.7	20.8	0.51
Fourth	56.9	67.0	0.85	21.1	37.6	0.56
Richest	65.3	76.8	0.85	34.3	50.5	0.68
Total	47.3	55.4	0.85	16.3	24.3	0.67

<sup>1</sup> MICS indicator 7.9; MDG indicator 3.1  
<sup>2</sup> MICS indicator 7.10; MDG indicator 3.1  
<sup>a</sup>The results for 12 and 5 unweighted cases with missing information on education of mother/caretaker of primary and secondary school age children, respectively, are not shown in the table.

## Non Formal Education

Non Formal Education (NFE) can complement formal education or help people who are out of the formal education system acquire useful skills in life. In the context of the Somaliland where formal education is still developing, NFE may act as a critical source of these skills. The MICS4 focused on children aged 5 -17 years of age and collected data on different types of NFE;

- Koranic School
- Integrated Koranic School
- Alternative Basic Education (ABE) classes
- Vocational training classes

And for each of the NFE category, data were collected on children 5 – 17 years who;

- Ever attended NFE
- Are currently attending different types of NFE
- Have completed the different types of NFE

Children who ever attended any form of NFE are shown in table ED.9A. Two in every three children aged 5 -17 years (67 percent) have ever attended non formal education. Most (65 percent) of these children have ever attended a Koranic School and about a third have ever attended an integrated koranic school. Less than 10 percent of children have ever attended Alternative Basic Education (ABE), education for youth programme or vocational training classes.

The likelihood to have ever attended any form of NFE appears to increase with the education level of the mother (65 percent for mothers with primary education versus 79 and 77 per cent respectively for mothers with primary or secondary education). NFE attendance also increases with wealth status: 47 percent among children from the poorest households versus 77 percent in the richest households.

**Table ED.9A. Ever Attendance of Non-Formal Education**

Percentage of children who ever attended non-formal education, Somaliland, 2011.

	Percentage of children who ever attended:					Number of children 5-17 years of age
	Non-formal education	Any koranic school	An integrated koranic school	ABE classes	An education for youth programme	
<b>Sex</b>						
Male	69.4	67.8	35.5	7.2	2.1	0.9
Female	64.5	62.8	32.7	6.6	2.1	1.1
<b>Region</b>						
Maroodijeex/Saaxil	66.0	64.4	38.7	7.7	2.5	1.5
Awdal	68.3	65.8	29.5	8.8	3.0	1.2
Togdheer	69.4	68.4	34.3	6.1	1.8	0.5
Sool	72.2	71.0	21.9	9.9	1.1	0.0
Sanaag	63.0	61.0	28.5	1.5	0.9	0.1
<b>Area</b>						
Urban	73.5	71.9	41.9	9.5	3.0	1.5
Rural	60.0	58.3	25.8	4.1	1.2	0.4
<b>Age groups</b>						
5-12	64.9	63.6	32.7	5.3	1.3	0.6
13-17	71.3	68.9	37.1	10.1	3.9	1.9
<b>Mother's education<sup>a</sup></b>						
None	65.0	63.4	32.1	6.2	1.9	1.0
Primary	78.6	77.0	42.8	10.0	3.0	0.4
Secondary +	76.9	75.9	47.2	9.9	0.9	1.1
Mother not in household	58.0	55.6	31.5	7.7	4.9	2.3
<b>Wealth index quintiles</b>						
Poorest	46.8	45.4	18.3	2.2	0.6	0.2
Second	64.6	62.9	27.7	4.7	1.2	0.7
Middle	73.8	71.9	36.0	8.2	2.3	1.2
Fourth	74.6	73.3	44.0	9.4	2.8	0.9
Richest	76.6	74.8	46.1	10.2	4.0	2.1
Total	67.0	65.3	34.1	6.9	2.1	1.0

<sup>a</sup>Total includes 21 unweighted cases missing information on mother's education who are not shown separately

Children who were attending the different forms of NFE at the time of the survey are shown in Table ED. 9B. The pattern is similar to that of those who ever attended, where over half (55 percent) of children were attending Koranic school and nearly a third (30 percent) were attending integrated Koranic School at the time of the survey.

**Table ED.9B. Current Attendance for Non-Formal Education**

Percentage of children currently attending non-formal education, Somaliland, 2011

	Percentage of children currently attending any koranic school	Percentage of children currently attending an integrated koranic school	Percentage of children currently attending ABE classes	Percentage of children currently attending an education for youth programme	Percentage of children currently attending vocational training classes	Number of children 5-17 years of age
<b>Sex</b>						
Male	57.8	31.5	1.6	0.7	0.4	6,277
Female	52.9	28.8	1.1	0.8	0.5	6,122
<b>Region</b>						
Maroodijeex/Saaxil	53.7	34.1	2.0	1.1	0.8	5,758
Awdal	56.1	26.6	2.2	0.7	0.3	1,810
Togdheer	57.7	30.1	0.2	0.3	0.2	2,417
Sool	65.7	19.9	0.9	0.6	0.0	728
Sanaag	52.6	25.2	0.1	0.2	0.0	1,687
<b>Area</b>						
Urban	61.6	37.2	2.2	1.1	0.7	6,414
Rural	48.7	22.6	0.6	0.4	0.2	5,986
<b>Age groups</b>						
5-12	57.3	30.5	0.9	0.5	0.2	8,393
13-17	51.2	29.5	2.4	1.3	0.9	4,007
<b>Mother's education<sup>a</sup></b>						
None	53.5	28.2	1.4	0.7	0.5	9,747
Primary	68.7	39.9	1.6	0.9	0.3	1,490
Secondary +	68.7	44.1	0.9	0.3	1.1	620
Mother not in household	36.0	22.0	1.7	1.3	0.2	514
<b>Wealth index quintiles</b>						
Poorest	35.0	15.3	0.5	0.2	0.1	2,593
Second	52.3	23.8	0.5	0.3	0.2	2,486
Middle	63.8	32.8	2.0	1.2	0.5	2,526
Fourth	63.3	39.6	1.2	0.5	0.5	2,518
Richest	63.8	40.8	2.8	1.6	1.0	2,277
<b>Total</b>	<b>55.4</b>	<b>30.2</b>	<b>1.4</b>	<b>0.7</b>	<b>0.4</b>	<b>12,400</b>

<sup>a</sup>Total includes 21 unweighted cases of children missing information on mother's education that are not shown separately

The percentage of children who complete a NFE programme is shown in Table ED.9C. Only 5 percent of children completed ABE classes, 2 percent completed youth programme and a further 0.5 percent completed the vocational training programme. However this data should be interpreted with caution as the total includes very young children who may not be expected to have completed any of the non-formal education programme e.g. a five year old may not have completed vocational training.

**Table ED.9C: Completion of Non-formal education**

Percentage of children 5 -17 years having completed a non-formal education programme, Somaliland, 2011

	Percentage of children who:			Number of children 5-17 years of age
	Completed the ABE programme	Completed an education for youth programme	Completed a vocational training programme	
<b>Sex</b>				
Male	5.5	1.6	0.6	6,277
Female	5.0	1.4	0.5	6,122
<b>Region</b>				
Maroodijeex/Saaxil	5.9	1.7	0.9	5,758
Awdal	7.4	2.3	0.3	1,810
Togdheer	4.6	1.2	0.5	2,417
Sool	7.1	1.1	0.0	728
Sanaag	0.9	0.4	0.1	1,687
<b>Area</b>				
Urban	7.3	2.2	0.7	6,414
Rural	3.0	0.8	0.4	5,986
<b>Age groups</b>				
5-12	4.2	0.9	0.3	8,393
13-17	7.4	2.9	1.1	4,007
<b>Mother's education<sup>a</sup></b>				
None	4.8	1.4	0.6	9,747
Primary	7.9	2.1	0.0	1,490
Secondary +	5.9	0.5	0.8	620
Mother not in household	5.3	3.6	1.1	514
<b>Wealth index quintiles</b>				
Poorest	1.5	0.4	0.2	2,593
Second	3.1	0.7	0.6	2,486
Middle	7.0	1.5	0.5	2,526
Fourth	7.1	2.0	0.5	2,518
Richest	7.9	3.2	1.0	2,277
Total	5.3	1.5	0.5	12,400

<sup>a</sup>Total includes 21 unweighted cases of children missing information on mother's education who are not shown separately

## **XI. Child Protection**

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### **Child Labour**

Article 32 of the Convention on the Rights of the Child states: "States Parties recognize the right of the child to be protected from economic exploitation and from performing any work that is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral or social development..." The World Fit for Children mentions nine strategies to combat child labour and the MDGs call for the protection of children against exploitation. In the MICS questionnaire, a number of questions addressed the issue of child labour, that is, children 5-14 years of age involved in labour activities. A child is considered to be involved in child labour activities at the moment of the survey if during the week preceding the survey he/she performed the following activities:

- Ages 5-11: at least one hour of economic work or 28 hours of domestic work per week.
- Ages 12-14: at least 14 hours of economic work or 28 hours of domestic work per week.

This definition allows differentiation between child labour and child work to identify the type of work that should be eliminated. Table CP.1 presents the results of child labour by the type of work. Percentages do not add up to the total child labour as children may be involved in more than one type of work. Twenty six percent of all children age 5 – 14 years are involved in child labour. About 22 percent of the children age 5-11 years and 35 percent of those age 12 – 14 years were involved in working for family business in the past week before the survey. A higher percentage of children were working in family businesses in rural areas compared to urban areas in both age groups; 34 versus 9 percent in the 5 – 11 years age group and 55 versus 18 percent in the 12 – 14 years age group. There was little variation in the percentage of children who experienced child labour between males (23 percent) and females (29 percent). Child labour involvement decreased with increasing maternal education and varied across regions. The percentage of children involved in household chores for 28 hours or more in the previous week is higher among children aged 12 – 14 years (11 percent) compared to younger children (4 percent).

**Table CP.1: Child labour**

Percentage of children by involvement in economic activity and household chores during the past week, according to age groups, and percentage of children age 5-14 involved in child labour, Somaliland, 2011

	Percentage of children age 5-11 involved in:												Percentage of children age 12-14 involved in:							
	Economic activity		Econo- mic activity for at least one hour		House- hold chores less than 28 hours		House- hold chores for 28 hours or more		Number of children age 5-11	Economic activity		Econo- mic activity for 14 hours or more		House- hold chores less than 28 hours		House- hold chores for 28 hours or more		Number of children age 12- 14	Total child labour <sup>1</sup>	Number of children age 5-14 years
	Working outside household	Working for family business	Paid work	Unpaid work	Working outside household	Working for family business	Paid work	Unpaid work		Working outside household	Working for family business	Paid work	Unpaid work	Working outside household	Working for family business	Paid work	Unpaid work			
<b>Sex</b>																				
Male	0.4	1.6	21.2	22.4	24.9	1.7	23.7	3,769	1.1	1.9	32.0	15.0	18.2	30.7	3.7	21.2	1,385	23.0	5,154	
Female	0.5	1.6	22.4	23.5	45.4	5.7	27.1	3,574	1.2	3.8	37.8	18.3	21.4	62.8	17.1	33.3	1,514	28.9	5,088	
<b>Region</b>																				
Maroodijeex/Saaxil	0.6	2.5	15.3	17.5	30.2	2.6	19.4	3,319	1.4	4.1	26.5	16.3	12.9	46.0	8.8	20.3	1,352	19.6	4,671	
Awdal	0.4	1.9	23.8	24.9	35.9	4.1	27.6	1,105	1.2	4.1	37.0	14.6	24.6	52.0	9.0	30.7	408	28.4	1,514	
Togdheer	0.3	0.4	25.7	25.8	37.3	3.9	28.4	1,411	0.8	2.0	42.4	19.2	23.6	45.0	14.1	33.1	593	29.8	2,003	
Sool	0.9	0.0	29.4	29.5	47.2	5.5	31.6	446	1.0	0.5	40.0	16.2	23.8	50.7	13.7	33.7	173	32.2	618	
Sanaag	0.2	0.5	31.4	31.5	40.3	5.8	35.0	1,062	0.8	0.0	49.5	17.2	32.3	50.5	12.5	38.4	374	35.9	1,436	
<b>Area</b>																				
Urban	0.6	1.9	8.8	10.5	32.9	2.8	12.8	3,577	1.5	3.6	17.9	12.5	8.0	44.5	10.5	16.7	1,568	14.0	5,145	
Rural	0.3	1.3	34.1	34.7	36.8	4.5	37.2	3,766	0.7	2.1	55.2	21.7	33.9	51.0	10.9	40.3	1,331	38.0	5,097	
<b>School attendance</b>																				
Yes	0.6	2.6	21.9	23.7	40.2	4.4	26.5	2,670	0.9	3.1	29.5	16.0	15.3	46.7	9.7	22.4	1,810	24.8	4,481	
No	0.4	1.0	21.7	22.5	31.9	3.3	24.7	4,672	1.5	2.7	44.1	18.0	27.6	48.8	12.3	36.0	1,089	26.8	5,762	
<b>Mother's education</b>																				
None	0.4	1.6	23.3	24.5	35.0	3.9	27.1	6,064	1.2	2.8	37.1	17.3	21.3	47.7	10.6	28.8	2,360	27.6	8,424	
Primary	0.7	1.8	16.7	17.9	35.9	2.7	19.1	931	0.9	4.1	32.2	16.5	17.6	47.6	11.4	25.4	363	20.8	1,294	
Secondary	0.9	0.9	8.3	9.4	31.1	2.3	11.4	336	1.1	2.3	11.9	9.0	5.7	42.8	10.4	15.0	171	12.6	507	
Missing/DK	(*)	(*)	(*)	(*)	(*)	(*)	(*)	12	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	5	(*)	17	
<b>Wealth index quintile</b>																				
Poorest	0.3	1.7	37.9	38.9	33.9	4.8	41.7	1,632	0.3	1.6	58.3	23.2	36.0	48.4	10.7	42.2	584	41.9	2,217	
Second	0.6	0.7	34.5	34.7	36.5	4.4	37.1	1,541	1.8	2.4	56.9	21.8	35.1	50.5	10.0	41.4	559	38.2	2,100	
Middle	0.6	1.0	18.8	19.5	38.2	3.9	21.8	1,526	2.6	1.7	37.4	20.4	18.5	47.1	12.6	26.6	571	23.1	2,097	
Fourth	0.5	2.2	7.1	9.3	35.3	2.9	11.8	1,467	0.5	4.2	16.6	12.6	6.5	47.6	11.8	16.8	598	13.2	2,066	
Richest	0.3	2.5	5.2	7.0	29.5	1.8	8.6	1,176	0.7	4.6	7.3	6.2	4.4	44.0	8.4	11.6	587	9.6	1,763	
Total	0.5	1.6	21.8	22.9	34.9	3.7	25.3	7,343	1.1	2.9	35.0	16.7	19.9	47.5	10.7	27.5	2,899	26.0	10,242	

<sup>1</sup> MICS indicator 8.2

(\*) Figures that are based on less than 25 unweighted cases

Table CP.2 presents the percentage of children age 5-14 years involved in child labour who are attending school and percentage of children age 5-14 years attending school who are involved in child labour. Of the 44 percent of children 5-14 years of age attending school, 25 percent are also involved in child labour activities. On the other hand, out of the 26 percent of children who are involved in child labour, nearly half of them are also attending school (42 percent). The percentage of children attending school who are involved in child labour decreases with increasing maternal education and household wealth. On the contrary, the percentage of child labourers who are attending school increases with maternal education and household wealth. The prevalence of child labour and school attendance varied across regions and area of residence. The percentage of children involved in child labour activities and attending school were highest in Awdal region (53 percent) and among those from the urban areas (56 percent) compared to rural areas (37 percent; Table CP.2).

<b>Table CP.2: Child labour and school attendance</b>							
Percentage of children age 5-14 years involved in child labour who are attending school, and percentage of children age 5-14 years attending school who are involved in child labour, Somaliland, 2011							
	Percentage of children involved in child labour	Percentage of children attending school	Number of children age 5-14 years	Percentage of child labourers who are attending school <sup>1</sup>	Number of children age 5-14 years involved in child labour	Percentage of children attending school who are involved in child labour <sup>2</sup>	Number of children age 5-14 years attending school
<b>Sex</b>							
Male	23.0	46.6	5,154	41.1	1,185	20.3	2,403
Female	28.9	40.8	5,088	42.5	1,473	30.1	2,077
<b>Region</b>							
Maroodijeex/Saaxil	19.6	47.8	4,671	46.4	917	19.1	2,234
Awdal	28.4	52.5	1,514	53.4	430	28.9	795
Togdheer	29.8	33.8	2,003	32.2	596	28.4	677
Sool	32.2	33.5	618	34.1	199	32.8	207
Sanaag	35.9	39.5	1,436	38.3	515	34.8	567
<b>Area</b>							
Urban	14.0	51.3	5,145	56.0	721	15.3	2,639
Rural	38.0	36.1	5,097	36.6	1,937	38.5	1,842
<b>Age</b>							
5-11	25.3	36.4	7,343	38.0	1,860	26.5	2,670
12-14	27.5	62.4	2,899	50.8	798	22.4	1,810
<b>Mother's education</b>							
None	27.6	40.3	8,424	38.8	2,321	26.5	3,395
Primary	20.8	57.3	1,294	61.4	270	22.4	741
Secondary+	12.6	66.6	507	73.5	64	13.9	338
Missing/DK	(*)	(*)	17	(*)	3	(*)	7
<b>Wealth index quintile</b>							
Poorest	41.9	23.0	2,217	24.4	928	44.5	509
Second	38.2	38.5	2,100	40.3	802	40.0	808
Middle	23.1	45.2	2,097	55.8	485	28.6	947
Fourth	13.2	53.4	2,066	66.5	274	16.5	1103
Richest	9.6	63.2	1,763	65.4	169	9.9	1,114
Total	26.0	43.7	10,242	41.9	2,658	24.8	4,481

<sup>1</sup> MICS indicator 8.3

<sup>2</sup> MICS indicator 8.4

## **Child Discipline**

As stated in A World Fit for Children, “children must be protected against any acts of violence....” and the Millennium Declaration calls for the protection of children against abuse, exploitation and violence. In the Somaliland MICS survey, respondents to the household questionnaire were asked a series of questions on the ways in which adults in the household tend to discipline children during the past month preceding the survey. Note that for the child discipline module, one child aged 2-14 per household was selected randomly during fieldwork. Out of these questions, the two indicators used to describe aspects of child discipline are: 1) the number of children 2-14 years that experience psychological aggression as punishment or physical punishment; and 2) the number of respondents who believe that in order to raise children properly, they need be physically punished.

In Somaliland, 78 percent of children age 2-14 years were subjected to at least one form of psychological or physical punishment by their parents or other adult household members during the past month preceding the survey (Table CP.3). More importantly, 31 percent of children were subjected to severe physical punishment while 16 percent were subjected to non-violent form of discipline.

There were no major variations in the severity of physical punishment experienced by male and female children. It is very interesting that differentials with respect to many of the background variables were relatively small. Older children were more likely to have experienced psychological aggression.

**Table CP.3: Child discipline**

Percentage of children age 2-14 years according to method of disciplining the child, Somaliland, 2011

	Percentage of children age 2-14 years who experienced:				Number of children age 2-14 years	Respondent believes that the child needs to be physically punished	Respondents to the child discipline module		
	Only non-violent discipline	Psychological aggression	Physical punishment						
<b>Sex</b>									
Male	16.6	67.0	70.1	32.0	78.3	6,795	31.5		
Female	16.2	67.6	70.7	30.4	78.2	6,504	29.0		
<b>Region</b>									
Maroodijeex/Saaxil	16.8	65.9	70.4	30.3	77.8	6,034	29.3		
Awdal	12.9	69.0	72.5	34.7	81.1	1,988	37.8		
Togdheer	18.0	69.4	68.5	30.6	78.4	2,615	29.0		
Sool	10.8	65.1	70.1	40.2	76.9	776	23.6		
Sanaag	18.7	68.3	70.6	27.7	76.8	1,885	29.9		
<b>Area</b>									
Urban	16.6	66.3	69.7	28.7	77.8	6,651	26.4		
Rural	16.1	68.4	71.1	33.8	78.7	6,647	33.8		
<b>Age</b>									
2-4 years	19.1	57.1	63.8	25.8	70.7	2,964	27.7		
5-9 years	15.6	69.4	73.1	31.9	80.2	5,229	30.5		
10-14 years	15.6	71.1	71.3	33.7	80.6	5,105	31.6		
<b>Education of household head</b>									
None	16.0	67.8	70.9	30.9	78.6	8,822	na		
Primary	13.7	67.8	72.8	33.5	79.8	1,861	na		
Secondary+	19.0	65.6	67.3	29.4	76.2	2,201	na		
Missing/DK	22.4	63.5	64.4	36.7	73.4	414	na		
<b>Respondent's education</b>									
None	na	na	na	na	na	na	31.5		
Primary	na	na	na	na	na	na	26.6		
Secondary+	na	na	na	na	na	na	23.6		
<b>Wealth index quintile</b>									
Poorest	16.0	67.6	69.8	29.4	77.8	2,886	33.7		
Second	15.8	69.6	71.8	35.0	79.9	2,809	33.9		
Middle	16.6	66.6	72.9	33.8	78.3	2,716	29.7		
Fourth	13.2	69.5	73.1	31.1	81.9	2,638	26.9		
Richest	21.1	62.5	63.1	25.8	72.4	2,249	25.1		
<b>Total</b>	<b>16.4</b>	<b>67.3</b>	<b>70.4</b>	<b>31.2</b>	<b>78.2</b>	<b>13,298</b>	<b>30.2</b>		
<sup>1</sup> MICS indicator 8.5									

## **Early Marriage and Polygyny**

Marriage before the age of 18 is a reality for many young girls. According to UNICEF's worldwide estimates, over 60 million women age 20-24 were married before the age of 18. Factors that influence child marriage rates include: the state of the country's civil registration system, which provides proof of age for children; the existence of an adequate legislative framework with an accompanying enforcement mechanism to address cases of child marriage; and the existence of customary or religious laws and practices that condone the practice.

In many parts of the world parents encourage the marriage of their daughters while they are still children in hopes that the marriage will benefit them both financially and socially, while also relieving financial burdens on the family. In actual fact, child marriage is a violation of human rights, compromising the development of girls and often resulting in early pregnancy and social isolation, with little education and poor vocational training reinforcing the gendered nature of poverty. The right to 'free and full' consent to a marriage is recognized in the Universal Declaration of Human Rights - with the recognition that consent cannot be 'free and full' when one of the parties involved is not sufficiently mature to make an informed decision about a life partner.

Closely related to the issue of child marriage is the age at which girls become sexually active. Women who are married before the age of 18 tend to have more children than those who marry later in life. Pregnancy related deaths are known to be a leading cause of mortality for both married and unmarried girls between the ages of 15 and 19, particularly among the youngest of this cohort. There is evidence to suggest that girls who marry at young ages are more likely to marry older men which puts them at increased risk of HIV infection. The demand for this young wife to reproduce and the power imbalance resulting from the age differential lead to very low condom use among such couples.

Two of the indicators are the percentage of women married before 15 years of age and percentage married before 18 years of age. The percentage of women married at various ages is provided in Table CP.4. About one in ten young women age 15-19 years is currently married (9 percent). This proportion varies between urban (6 percent) and rural (14 percent) residence, and is strongly related to the level of education. Almost one third (31 percent) of women aged 20 to 49 years got married before age 18. The percentage of women in a polygynous union is also provided in Table CP.4. Seventeen percent of currently married women are in polygynous unions. This proportion increases sharply with age from 7 percent among younger women to 28 percent among older ones.

**Table CP.4: Early marriage and polygyny**

Percentage of women age 15-49 years who first married or entered a marital union before their 15th birthday, percentages of women age 20-49 years who first married or entered a marital union before their 15th and 18th birthdays, percentage of women age 15-19 years currently married , and the percentage of women currently married who are in a polygynous marriage, Somaliland, 2011

	Percentage married before age 15 <sup>1</sup>	Number of women age 15-49 years	Percentage married before age 15	Percentage married before age 18 <sup>2</sup>	Number of women age 20-49 years	Percentage of women 15-19 years currently married <sup>3</sup>	Number of women age 15-19 years	Percentage of women age 15-49 years in polygynous marriage <sup>4</sup>	Number of women age 15-49 years currently married
<b>Region</b>									
Maroodijeex/Saaxil	7.7	2,925	9.8	27.4	2,206	6.1	719	15.8	1,439
Awdal	9.3	841	11.2	30.2	631	9.2	210	10.8	492
Togdheer	9.3	1,078	11.4	34.8	809	12.2	268	19.4	602
Sool	9.1	314	10.7	36.6	239	18.6	76	17.5	181
Sanaag	11.1	707	13.8	36.6	529	11.0	178	22.7	432
<b>Area</b>									
Urban	6.7	3,378	8.7	26.1	2,451	5.9	928	16.4	1,521
Rural	11.4	2,487	13.5	36.5	1,963	14.3	523	17.1	1,626
<b>Age</b>									
15-19	2.3	1,451	na	na	na	8.9	1,451	6.5	129
20-24	6.8	1,148	6.8	24.1	1,148	na	na	7.7	455
25-29	9.9	1,060	9.9	29.7	1,060	na	na	11.2	751
30-34	16.8	731	16.8	38.6	731	na	na	16.5	603
35-39	12.8	673	12.8	35.3	673	na	na	24.2	553
40-44	11.5	540	11.5	32.5	540	na	na	24.3	452
45-49	9.0	262	9.0	27.3	262	na	na	27.8	202
<b>Education</b>									
None	10.6	3,956	12.1	33.2	3,318	12.4	638	17.3	2,510
Primary	5.5	1,227	8.3	26.8	680	7.4	546	14.5	459
Secondary+	3.3	682	5.0	17.7	416	3.5	267	14.5	177
<b>Wealth index quintile</b>									
Poorest	13.7	920	16.2	40.7	740	12.7	180	16.9	635
Second	10.6	1,068	12.4	35.0	835	17.0	233	15.6	683
Middle	9.8	1,162	12.0	35.6	881	7.9	281	19.3	660
Fourth	8.3	1,254	10.4	28.3	933	7.8	321	15.0	616
Richest	3.7	1,461	5.1	18.3	1,026	4.6	436	17.0	552
Total	8.7	5,865	10.8	30.8	4,414	8.9	1,451	16.8	3,146

<sup>1</sup> MICS indicator 8.6<sup>2</sup> MICS indicator 8.7<sup>3</sup> MICS indicator 8.8<sup>4</sup> MICS indicator 8.9

Table CP.5 presents respectively the proportion of women who were first married or entered into a marital union before age 15 and 18 by area of residence and age groups. Examining the percentages married before age 15 and 18 by different age groups allow us to see the trends in early marriage over time. The survey found that the trend for marriage before the age of 15 years appeared to form a curve between the seven age categories starting from 2 per cent for those 15 – 19 years, reaching a high of 17 per cent among those 30 – 34 years and then declining to 13 per cent (35 – 39 age group), 12 per cent (40 – 44 age group) and declines to 9 percent for the 45 – 49 age group. For those married before the age of 18 years, the same curve like trend is evident starting from 24

percent for the 20 – 24 age group to a high of 39 per cent for the 30 – 34 age group and then declines to 27 per cent for the 45 – 49 age group.

<b>Table CP.5: Trends in early marriage</b>												
Percentage of women who were first married or entered into a marital union before age 15 and 18, by area and age groups, Somaliland, 2011												
	Urban				Rural				All			
	Percentage of women married before age 15	Number of women 15-49	Percentage of women married before age 18	Number of women before age 20-49	Percentage of women married before age 15	Number of women 15-49	Percentage of women married before age 18	Number of women 20-49	Percentage of women married before age 15	Number of women 15-49	Percentage of women married before age 18	Number of women 20-49
<b>Age</b>												
15-19	1.6	928	na	na	3.5	523	na	na	2.3	1,451	na	na
20-24	3.6	721	15.0	721	12.3	427	39.4	427	6.8	1,148	24.1	1,148
25-29	7.2	603	23.2	603	13.4	457	38.2	457	9.9	1,060	29.7	1,060
30-34	15.3	350	36.6	350	18.3	381	40.5	381	16.8	731	38.6	731
35-39	10.9	350	33.0	350	14.9	323	37.8	323	12.8	673	35.3	673
40-44	13.5	269	38.6	269	9.5	271	26.5	271	11.5	540	32.5	540
45-49	9.6	158	28.5	158	8.1	105	25.5	105	9.0	262	27.3	262
Total	6.7	3,378	26.1	2,451	11.4	2,487	36.5	1,963	8.7	5,865	30.8	4,414

Another component is spousal age difference measured as the percentage of married women whose husband or partner is 10 or more years older. Table CP.6 presents the results of the age difference between husbands and wives. The results show that there are some important spousal age differences in Somaliland. The percentage of women age 20-24 currently married to a man who is older by ten years or more is 29 percent. One third of women age 15-19 are currently married to men who are older by ten years or more (33 percent). The spousal age differentials by 10 years or more are slightly higher in rural than urban women.

**Table CP.6: Spousal age difference**

Percent distribution of women currently married age 15-19 and 20-24 years according to the age difference with their husband or partner, Somaliland, 2011

	Percentage of currently married women age 15-19 years whose husband or partner is:					Number of women age 15-19 years currently married	Percentage of currently married women age 20-24 years whose husband or partner is:					Number of women age 20-24 years currently married		
	0-4 years older	5-9 years older	10+ years older <sup>1</sup>	Husband/Partner's age unknown	Total		0-4 years older	5-9 years older	10+ years older <sup>2</sup>	Husband/Partner's age unknown	Total			
							Younger							
<b>Region</b>														
Maroodijeex/Saaxil	(22.9)	(39.6)	(33.1)		(4.5)	100.0	44	1.6	30.6	31.8	30.2	5.8	100.0	189
Awdal	(*)	(*)	(*)		(*)	100.0	19	3.4	22.1	38.0	34.7	1.8	100.0	60
Togdheer	(37.6)	(37.6)	(18.8)		(5.9)	100.0	33	3.7	38.1	31.8	24.4	2.0	100.0	108
Sool	(*)	(*)	(*)		(*)	100.0	14	(3.9)	(40.3)	(34.6)	(17.3)	(3.9)	100.0	28
Sanaag	(*)	(*)	(*)		(*)	100.0	20	1.6	23.5	38.6	34.8	1.6	100.0	70
<b>Area</b>														
Urban	28.7	36.1	24.5		10.7	100.0	55	2.9	30.8	34.4	28.0	3.9	100.0	201
Rural	24.3	34.3	38.6		2.9	100.0	75	2.1	30.8	33.4	30.4	3.4	100.0	254
<b>Age</b>														
15-19	26.2	35.0	32.7		6.2	100.0	129	na	na	na	na	na	na	na
20-24	na	na	na		na	na	na	2.5	30.8	33.8	29.3	3.6	100.0	455
<b>Education</b>														
None	21.5	32.2	40.0		6.2	100.0	79	2.1	28.9	34.5	30.9	3.6	100.0	339
Primary	(24.7)	(43.9)	(23.9)		(7.5)	100.0	41	3.5	35.1	32.4	26.6	2.4	100.0	86
Secondary+	(*)	(*)	(*)		(*)	100.0	9	(3.3)	(39.9)	(30.8)	(19.6)	(6.5)	100.0	30
<b>Wealth index quintile</b>														
Poorest	(*)	(*)	(*)		(*)	100.0	23	2.5	27.5	34.8	30.1	5.0	100.0	85
Second	(26.0)	(37.4)	(29.0)		(7.6)	100.0	40	2.1	32.1	32.7	31.0	2.0	100.0	104
Middle	(*)	(*)	(*)		(*)	100.0	22	2.0	29.8	34.6	30.6	3.0	100.0	104
Fourth	(19.3)	(39.3)	(33.6)		(7.8)	100.0	25	3.4	32.4	32.0	28.8	3.4	100.0	85
Richest	(*)	(*)	(*)		(*)	100.0	20	2.5	32.2	35.1	25.2	5.0	100.0	77
Total	26.2	35.0	32.7		6.2	100.0	129	2.5	30.8	33.8	29.3	3.6	100.0	455

<sup>1</sup> MICS indicator 8.10a

<sup>2</sup> MICS indicator 8.10b

( ) Figures that are based on 25-49 unweighted cases

(\*) Figures that are based on less than 25 unweighted cases

na: not applicable

## **Female Genital Mutilation/Cutting**

Female genital mutilation/cutting (FGM/C) is the partial or total removal of the female external genitalia or other injury to the female genital organs. FGM/C is always traumatic with immediate complications including excruciating pain, shock, urine retention, ulceration of the genitals and injury to adjacent tissue. Other complications include septicaemia, infertility, obstructed labour, and even death. In Somaliland, the procedure is generally carried out on girls between the ages of 4 and 14. It is often performed by traditional practitioners, including untrained village midwives without anaesthesia, using scissors, razor blades or broken glass. The instruments are often not sterile and the ritual is very often performed in unsanitary conditions.

FGM/C is a fundamental violation of human rights. It subjects girls and women to health risks and has life-threatening consequences. Among those rights violated are the rights to the highest attainable standard of health and to bodily integrity. Furthermore, it could be argued that girls (under 18) cannot be said to give informed consent to such a potentially damaging practice as FGM/C.

Table CP.7 presents the prevalence of FGM/C among women and the type and extent of the procedure. The table shows that almost all women (99 percent) aged 15-49 had some form of female genital mutilation. The most common form of FGM is sewing closed (85 percent). The practice differs slightly across regions with Togdheer region having the highest percentage (92 percent) of women who were sewn closed compared to women from other regions.

**Table CP.7: Female genital mutilation/cutting (FGM/C) among women**

Percent distribution of women age 15-49 years by FGM/C status, Somaliland, 2011

	Percent distribution of women age 15-49 years:						Percentage who had any form of FGM/C <sup>1</sup>	Number of women age 15-49 years		
	Who had FGM/C									
	No FGM/C	Had flesh removed	Were nicked	Were sewn closed	Form of FGM/C not determined	Total				
<b>Region</b>										
Maroodijeex/Saaxil	1.3	9.0	3.0	82.9	3.9	100.0	98.7	2,925		
Awdal	0.6	13.8	3.3	79.8	2.4	100.0	99.4	841		
Togdheer	0.6	4.3	2.4	91.6	1.1	100.0	99.4	1,078		
Sool	0.7	6.5	0.3	88.3	4.2	100.0	99.3	314		
Sanaag	0.3	8.1	2.1	87.5	2.0	100.0	99.7	707		
<b>Area</b>										
Urban	1.3	10.3	3.3	81.6	3.5	100.0	98.7	3,378		
Rural	0.4	6.2	1.8	89.4	2.2	100.0	99.6	2,487		
<b>Age</b>										
15-19	1.5	16.8	6.2	69.5	5.9	100.0	98.5	1,451		
20-24	1.2	11.6	3.7	78.3	5.2	100.0	98.8	1,148		
25-29	0.5	5.9	1.2	90.7	1.8	100.0	99.5	1,060		
30-34	1.0	3.3	0.7	94.4	0.7	100.0	99.0	731		
35-39	0.3	3.0	0.3	95.8	0.6	100.0	99.7	673		
40-44	0.8	3.0	0.4	95.9	0.0	100.0	99.2	540		
45-49	0.0	1.1	0.4	98.5	0.0	100.0	100.0	262		
<b>Education</b>										
None	0.8	6.2	1.3	90.1	1.6	100.0	99.2	3,956		
Primary	1.0	11.4	4.6	78.0	5.0	100.0	99.0	1,227		
Secondary+	1.6	17.4	6.7	67.1	7.2	100.0	98.4	682		
<b>Wealth index quintile</b>										
Poorest	0.2	6.5	1.4	89.8	2.2	100.0	99.8	920		
Second	0.5	6.3	2.0	89.8	1.4	100.0	99.5	1,068		
Middle	0.5	6.6	1.9	88.0	3.0	100.0	99.5	1,162		
Fourth	0.8	8.2	3.2	84.7	3.0	100.0	99.2	1,254		
Richest	2.0	13.5	4.1	75.9	4.6	100.0	98.0	1,461		
Total	0.9	8.6	2.7	84.9	3.0	100.0	99.1	5,865		

<sup>1</sup> MICS indicator 8.12

Somaliland like the rest of Somalia has one of the highest prevalence rates of FGM/C in the world with nearly all girls cut by the age of 12. Majority of these girls and women are subjected to 'pharmonic' FGM/C, the most severe form of the practice, usually involving infibulations. Despite internationally recognized laws against FGM/C, lack of validation for the practice in Islam religion and global advocacy to eradicate the practice, it remains deeply embedded in Somaliland culture. In the rural areas, FGM/C is practiced during the rainy season while in the urban centres there is no specific defined time frame.

Table CP.8 presents the prevalence and extent of FGM/C performed on the respondents' daughters age 0-14. It is important to note that only women who have heard of FGM/C were eligible to respond. However, since 99.8 percent of women have heard of FGM/C, the information gathered is practically representative of all daughters. Overall, 28 per cent of daughters have undergone FGM/C<sup>17</sup>. Twelve percent were sewn closed while 10 percent had flesh removed. The percentage of daughters who had flesh removed was slightly more in urban areas (12 percent) compared to rural areas (8 percent). Thirteen percent of daughters in rural areas were sewn closed compared to 10 percent in urban areas

<b>Table CP.8: Female genital mutilation/cutting (FGM/C) among daughters</b>										
Percent distribution of daughters age 0-14 by FGM/C status, Northwest Zone, Somalia 2011										
	Percent distribution of daughters age 0-14 years:						Percentage who had any form of FGM/C <sup>1</sup>	Number of daughters age 0-14 years		
	Who had FGM/C									
	No FGM/C	Had flesh removed	Were nicked	Were sewn closed	Form of FGM/C not determined	Total				
<b>Region</b>										
Maroodijeex/Saaxil	71.5	10.4	4.4	9.2	4.5	100.0	28.5	2,527		
Awdal	71.4	11.8	3.2	10.7	3.0	100.0	28.6	854		
Togdheer	75.4	8.4	2.0	12.8	1.5	100.0	24.6	1,202		
Sool	73.6	5.9	2.1	16.9	1.5	100.0	26.4	336		
Sanaag	70.5	8.5	2.5	16.0	2.5	100.0	29.5	810		
<b>Area</b>										
Urban	69.5	11.7	4.6	10.2	4.0	100.0	30.5	2,753		
Rural	74.9	7.7	2.2	12.9	2.3	100.0	25.1	2,977		
<b>Age</b>										
0-4	99.6	0.1	0.0	0.1	0.2	100.0	0.4	2,078		
5-9	83.2	6.5	2.1	6.2	2.1	100.0	16.8	2,086		
10-14	21.5	26.4	9.4	34.1	8.6	100.0	78.5	1,566		
<b>Mothers Education</b>										
None	72.5	9.7	2.7	11.9	3.1	100.0	27.5	4,692		
Primary	73.8	8.2	4.9	10.4	2.6	100.0	26.2	756		
Secondary	64.8	11.8	9.1	9.4	4.9	100.0	35.2	282		
<b>Mother's FGM/C experience</b>										
No FGM/C	(*)	(*)	(*)	(*)	(*)	100.0	(*)	11		
Had FGM/C	72.3	9.6	3.3	11.6	3.2	100.0	27.7	5,718		
<b>Wealth index quintile</b>										
Poorest	78.0	6.3	2.5	10.5	2.7	100.0	22.0	1,230		
Second	73.8	8.7	2.1	13.6	1.8	100.0	26.2	1,267		
Middle	69.7	10.2	2.3	15.5	2.3	100.0	30.3	1,191		
Fourth	70.8	11.4	5.2	8.3	4.3	100.0	29.2	1,145		
Richest	67.5	12.4	5.3	9.4	5.4	100.0	32.5	895		
<b>Total</b>	72.3	9.6	3.3	11.6	3.2	100.0	27.7	5,729		

<sup>1</sup> MICS indicator 8.13

(\*) Figures that are based on less than 25 unweighted cases

<sup>17</sup> Note that this is the current (rather than final) status of the girls aged 0-14 years. Therefore, this data cannot be compared with the prevalence of FGM/C among women 15-49 years.

Table CP.9 presents women's attitudes towards FGM/C. Regarding opinion as to whether the practice should be continued or discontinued, 29 percent of women thought it should be continued while 69 percent believed it should be discontinued. The percent of women believe FGM/C should stop was higher in urban areas, among those with secondary or higher education and those from the richest households. A higher proportion of younger women aged 15 – 19, thought FGM/C should continue compared to older women.

**Table CP.9: Approval of female genital mutilation/cutting (FGM/C)**

Percentage of women age 15-49 years who have heard of FGM/C, and percent distribution of women according to attitudes towards whether the practice of FGM/C should be continued, Somaliland, 2011

	Percentage of women who have heard of FGM/C	Number of women age 15-49 years	Percent distribution of women who believe the practice of FGM/C should be:				Number of women age 15-49 years who have heard of FGM/C
			Continued <sup>1</sup>	Discontinued	Depends	Don't know	
<b>Region</b>							
Maroodijeex/Saaxil	99.8	2925	25.0	72.7	0.1	2.1	100.0
Awdal	100.0	841	30.4	67.3	0.7	1.6	100.0
Togdheer	100.0	1078	33.9	64.6	0.2	1.3	100.0
Sool	99.7	314	28.1	69.4	0.7	1.8	100.0
Sanaag	99.8	707	33.4	64.2	1.0	1.3	100.0
<b>Area</b>							
Urban	99.8	3378	22.4	75.1	0.4	2.1	100.0
Rural	99.9	2487	35.2	63.1	0.4	1.4	100.0
<b>Age</b>							
15-19	99.8	1451	45.3	54.7	0.0	0.0	100.0
20-24	99.9	1148	29.8	67.5	0.0	2.7	100.0
25-29	99.8	1060	25.6	73.2	0.2	1.0	100.0
30-34	99.7	731	29.1	68.8	0.0	2.1	100.0
35-39	99.9	673	27.0	70.9	0.9	1.2	100.0
40-44	100.0	540	32.7	63.8	0.8	2.6	100.0
45-49	100.0	262	29.8	68.2	0.4	1.7	100.0
<b>Education</b>							
None	99.8	3956	30.6	67.5	0.3	1.6	100.0
Primary	99.9	1227	24.5	73.0	0.5	2.0	100.0
Secondary+	100.0	682	15.7	80.6	1.2	2.5	100.0
<b>FGM/C experience</b>							
No FGM/C	(83.0)	(53)	(12.1)	(77.2)	(0.0)	(10.7)	100.0
Had FGM/C	100.0	5812	29.0	68.9	0.4	1.7	100.0
<b>Wealth index quintile</b>							
Poorest	100.0	920	40.1	58.2	0.2	1.6	100.0
Second	99.8	1068	32.0	66.3	0.5	1.3	100.0
Middle	99.7	1162	28.2	69.4	0.5	1.9	100.0
Fourth	100.0	1254	22.8	75.1	0.5	1.6	100.0
Richest	99.8	1461	18.7	78.5	0.2	2.7	100.0
Total	99.8	5865	28.9	68.9	0.4	1.7	100.0
<sup>1</sup> MICS indicator 8.11							
( ) Figures that are based on 25-49 unweighted cases							

### Attitudes toward Domestic Violence

The Somaliland MICS4 assessed the attitudes of women and men age 15-49 years towards wife/partner beating by asking the respondents whether husbands are justified to hit or beat their wives/partners in a variety of scenarios. These questions were asked to have an indication of cultural beliefs that tend to be associated with the prevalence of violence against women by their husbands/partners. The main assumption here is that women that agree with the statements indicating that husbands/partners are justified to beat their wives/partners under the situations described in reality tend to be abused by their own husbands/partners and similarly, men who agree with the statements in reality tend to exercise violence towards their wives or partners. Nevertheless, supportive attitudes should not necessarily be

interpreted as a measure of approval of wife-beating, nor should such attitudes imply that a woman or girl will inevitably become a victim of wife-beating, but should be seen rather as an indication of the social acceptance of such practices when women and girls have a lower status in society and certain expected gender roles are not fulfilled.

The responses to these questions are found in Table CP.10. Overall, 55 percent of women in Somaliland feel that a husband/partner is justified in hitting or beating his wife/partner for at least one of a variety of reasons. Women who approve of a husband's violence, in most cases agree and justify violence in instances when the woman neglects the children (41 percent), or if she demonstrates her autonomy, e.g. goes out without telling her husband (35 percent) or argues with him (38 percent). About four out of ten women believe that a husband is justified in hitting or beating his wife/partner if she refuses to have sex with him (39 percent) while another 21 percent believe a husband can hit or beat his wife/partner if she burns the food. Acceptance of wife beating does not differ by background characteristics

**Table CP.10: Attitudes toward domestic violence**

Percentage of women age 15-49 years who believe a husband is justified in beating his wife/partner in various circumstances, Somaliland, 2011

	Percentage of women age 15-49 years who believe a husband is justified in beating his wife/partner:						Number of women age 15-49 years
	If she goes out without telling him	If she neglects the children	If she argues with him	If she refuses sex with him	If she burns the food	For any of these reasons <sup>1</sup>	
<b>Region</b>							
Maroodijeex/Saaxil	35.1	42.2	36.3	39.8	20.6	56.4	2,925
Awdal	38.1	42.6	41.5	42.9	25.4	56.4	841
Togdheer	33.3	39.8	38.4	37.6	19.6	52.4	1,078
Sool	30.2	27.9	28.7	23.5	16.3	38.4	314
Sanaag	32.3	44.0	39.8	43.0	21.6	55.7	707
<b>Area</b>							
Urban	33.5	40.7	36.0	39.3	19.9	53.8	3,378
Rural	36.0	42.1	39.5	39.5	22.5	55.7	2,487
<b>Age</b>							
15-19	33.3	39.1	36.2	35.8	20.5	52.4	1,451
20-24	34.4	40.8	36.0	39.8	21.0	53.6	1,148
25-29	33.3	41.3	36.6	40.2	19.6	55.1	1,060
30-34	36.0	43.5	39.4	41.7	22.6	56.9	731
35-39	35.3	40.8	40.1	40.1	22.3	53.8	673
40-44	38.7	47.0	40.5	43.9	23.1	60.3	540
45-49	34.2	38.7	36.1	35.7	17.5	53.9	262
<b>Marital/Union status<sup>a</sup></b>							
Currently married	35.2	42.3	39.1	41.4	22.1	56.1	3,146
Formerly married	34.4	40.7	35.9	38.6	18.9	54.1	466
Never married	33.8	39.9	35.6	36.7	19.9	52.7	2,248
<b>Education</b>							
None	35.9	42.4	39.3	40.2	22.5	55.7	3,956
Primary	33.2	40.4	36.4	39.5	18.6	54.7	1,227
Secondary+	29.6	36.4	28.5	34.3	16.7	48.4	682
<b>Wealth index quintile</b>							
Poorest	36.6	44.8	43.9	40.7	22.8	56.0	920
Second	38.0	43.7	41.9	44.9	26.7	59.9	1,068
Middle	32.0	37.3	33.8	34.2	19.7	50.5	1,162
Fourth	35.4	43.9	38.7	41.8	20.8	57.1	1,254
Richest	32.2	38.1	32.1	36.5	17.0	51.2	1,461
Total	34.6	41.3	37.5	39.4	21.0	54.6	5,865

<sup>1</sup> MICS indicator 8.14

<sup>a</sup>Total includes 5 unweighted cases of women missing information on marital status who are not shown separately

## **Orphans**

Monitoring the variations in different outcomes for orphans and comparing them to their peers gives us a measure of how well communities and governments are responding to their needs.

The frequencies of children living with neither parent, mother only, and father only are presented in Table CP.11 Sixty seven per cent of children aged 0-17 years in Somaliland live with both their parents. Twelve per cent of the children are living with neither parent while one or both parents are dead for 11 per cent of the children.

**Table CP.11: Children's living arrangements and orphanhood**

Percent distribution of children age 0-17 years according to living arrangements, percentage of children age 0-17 years in households not living with a biological parent and percentage of children who have one or both parents dead, Somaliland, 2011

	Living with neither parent		Living with mother only			Living with father only			Impossible to determine		Not living with a biological parent <sup>1</sup>	One or both parents dead <sup>2</sup>	Number of children age 0-17 years	
	Living with both parents	Only father alive	Only mother alive	Both alive	Both dead	Father alive	Father dead	Mother alive	Mother dead	Total				
<b>Sex</b>														
Male	69.2	1.0	1.3	7.2	1.1	10.7	6.6	1.1	0.6	1.0	100.0	10.7	10.8	8,718
Female	65.3	1.3	1.5	9.3	1.2	11.9	6.5	0.7	0.6	1.7	100.0	13.3	11.1	8,447
<b>Region</b>														
Maroodijeex/Saaxil	67.0	1.2	1.5	7.8	1.3	10.6	7.2	0.9	0.7	1.6	100.0	11.8	12.0	7,886
Awdal	75.0	0.8	1.0	6.6	1.6	7.2	5.4	0.4	0.9	1.2	100.0	10.0	9.7	2,548
Togdheer	65.7	0.6	1.7	8.2	1.0	12.6	7.0	1.0	0.7	1.4	100.0	11.6	11.0	3,375
Sool	62.4	1.3	1.0	11.0	0.7	15.3	5.3	1.3	0.1	1.6	100.0	14.0	8.5	995
Sanaag	63.9	1.8	0.9	10.3	1.0	14.5	5.6	1.1	0.1	0.7	100.0	14.0	9.4	2,361
<b>Area</b>														
Urban	64.4	1.3	1.7	8.7	1.7	11.7	6.9	1.0	0.8	1.9	100.0	13.4	12.4	8,714
Rural	70.3	1.0	1.0	7.7	0.7	10.9	6.2	0.8	0.5	0.9	100.0	10.5	9.4	8,450
<b>Age</b>														
0-4	77.4	0.4	0.6	4.5	0.5	11.4	3.4	0.8	0.3	0.7	100.0	6.0	5.1	4,765
5-9	69.0	1.1	1.2	8.5	1.0	11.5	5.5	0.8	0.5	0.9	100.0	11.7	9.3	5,387
10-14	61.5	1.6	1.9	10.6	1.3	11.3	8.7	1.0	1.0	1.1	100.0	15.4	14.5	4,855
15-17	53.5	1.8	2.6	10.7	2.8	10.4	11.5	1.2	0.8	4.8	100.0	17.9	19.7	2,158
<b>Wealth index quintiles</b>														
Poorest	71.7	0.7	1.1	7.0	0.8	9.4	6.5	1.1	0.6	1.1	100.0	9.5	9.7	3,604
Second	70.9	0.7	1.2	7.7	0.8	11.3	5.6	0.3	0.5	1.1	100.0	10.3	8.6	3,564
Middle	67.8	2.0	1.4	6.5	1.0	10.3	8.0	1.3	0.5	1.1	100.0	11.0	13.0	3,484
Fourth	63.0	1.0	1.3	8.5	1.2	14.3	6.9	1.0	1.0	1.8	100.0	12.1	11.5	3,446
Richest	62.0	1.4	1.9	12.0	2.3	11.3	5.8	0.8	0.6	1.9	100.0	17.6	12.1	3,067
<b>Total</b>	67.3	1.1	1.4	8.2	1.2	11.3	6.6	0.9	0.6	1.4	100.0	11.9	10.9	17,165

<sup>1</sup> MICS indicator 9.17

<sup>2</sup> MICS indicator 9.18

One of the measures developed for the assessment of the status of orphaned children relative to their peers looks at the school attendance of children 10-14 years for children who have lost both parents versus children whose parents are alive (and who live with at least one of these parents). If children whose parents have died do not have the same access to school as their peers, then families and schools are not ensuring that these children's rights are being met.

Table CP.12 presents the data on school attendance of orphans and non-orphans. Seventy two per cent of children who are orphans are attending school. However, due to a small number of these children a cautious interpretation of this table is emphasized.

<b>Table CP.12: School attendance of orphans and non-orphans</b>								
School attendance of children age 10-14 years by orphanhood, Somaliland, 2011								
	Percentage of children whose mother and father have died (orphans)	Percentage of children of whom both parents are alive and child is living with at least one parent (non-orphans)	Number of children age 10-14 years	Percentage of children who are orphans and are attending school <sup>1</sup>	Total number of orphan children age 10-14 years	Percentage of children who are non-orphans and are attending school <sup>2</sup>	Total number of non-orphan children age 10-14 years	Orphans to non-orphans school attendance ratio
<b>Sex</b>								
Male	1.5	76.3	2,395	(78.0)	36	65.3	1,827	(1.19)
Female	1.2	71.5	2,460	(63.5)	29	58.4	1,760	(1.09)
<b>Area</b>								
Urban	1.8	71.8	2,561	(66.4)	46	72.2	1,840	(0.92)
Rural	0.8	76.1	2,294	(*)	19	51.1	1,746	(*)
Total	1.3	73.9	4,855	71.5	65	61.9	3,586	1.15

<sup>1</sup> MICS indicator 9.19; MDG indicator 6.4

<sup>2</sup> MICS indicator 9.20; MDG indicator 6.4

( ) Figures that are based on 25-49 unweighted cases

(\*) Figures that are based on less than 25 unweighted cases

## **XII. HIV/AIDS**

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### **Knowledge about HIV Transmission and Misconceptions about HIV/AIDS**

One of the most important prerequisites for reducing the rate of HIV infection is accurate knowledge of how HIV is transmitted and strategies for preventing transmission. Correct information is the first step towards raising awareness and giving young people the tools to protect themselves from infection. Misconceptions about HIV are common and can confuse young people and hinder prevention efforts. Different regions are likely to have variations in misconceptions although some appear to be universal (for example that sharing food can transmit HIV or mosquito bites can transmit HIV). The UN General Assembly Special Session on HIV/AIDS (UNGASS) called on governments to improve the knowledge and skills of young people to protect themselves from HIV. The indicators to measure this goal as well as the MDG of reducing HIV infections by half include improving the level of knowledge of HIV and its prevention, and changing behaviours to prevent further spread of the disease. HIV modules were administered to women 15-49 years of age.

One indicator which is both an MDG and UNGASS indicator is the per cent of young women who have comprehensive and correct knowledge of HIV prevention and transmission. In Somaliland MICS all women who have heard of AIDS were asked whether they knew of the three main ways of preventing HIV transmission – having only one faithful uninfected partner, using a condom every time, and abstaining from sex. The results are presented in Table HA.1. In Somaliland, a majority (89 percent) of interviewed women have heard of AIDS. However, the percentage of women who know of both main ways of preventing HIV transmission is only 25. Seventy one percent of women know of having one faithful uninfected sex partner and 28 percent know of using a condom every time as main ways of preventing HIV transmission. Fifty nine percent of women know that a healthy looking person can have the AIDS virus and 24 percent reject the two main misconceptions and know that a healthy looking person can have the AIDS virus.

**Table HA.1: Knowledge about HIV transmission, misconceptions about HIV/AIDS, and comprehensive knowledge about HIV transmission**

Percentage of women age 15-49 years who know the main ways of preventing HIV transmission, percentage who know that a healthy looking person can have the AIDS virus, percentage who reject common misconceptions, and percentage who have comprehensive knowledge about HIV transmission, Somaliland, 2011

	Percentage who know transmission can be prevented by:			Percentage who know that a healthy looking person can have the AIDS virus	Percentage who know that HIV cannot be transmitted by:			Percentage who reject the two most common misconceptions and know that a healthy looking person can have the AIDS virus	Percentage with comprehensive knowledge <sup>1</sup>	Number of women
	Percentage who have heard of AIDS	Having only one faithful uninfected sex partner	Using a condom every time		Mosquito bites	Supernatural means	Sharing food with someone with AIDS			
<b>Region</b>										
Maroodijeex/Saaxil	91.2	76.6	30.4	27.7	62.9	46.4	45.7	64.7	27.4	8.2
Awdal	86.8	67.0	26.8	24.0	54.9	40.6	40.0	58.9	23.2	6.0
Togdheer	86.9	63.6	22.8	20.4	55.3	40.4	39.7	59.2	19.8	4.9
Sool	85.3	62.7	28.3	22.3	47.7	40.1	46.8	53.3	19.5	4.9
Sanaag	86.5	65.6	24.0	20.3	56.0	34.6	35.5	49.1	17.6	2.9
<b>Area</b>										
Urban	93.4	76.1	31.9	28.9	65.1	48.4	48.2	69.2	29.0	8.6
Rural	82.8	63.5	21.7	18.8	50.1	34.9	35.0	48.4	16.7	3.6
<b>Age</b>										
15-24	88.7	70.1	29.0	26.1	57.8	44.3	43.2	60.3	24.5	7.0
25-29	90.4	73.4	27.3	24.8	60.2	43.1	43.5	63.1	25.1	7.1
30-39	87.8	70.9	26.3	22.7	58.2	40.2	39.8	57.9	21.9	5.3
40-49	89.6	69.3	25.5	23.2	60.7	41.3	44.4	61.4	23.5	5.9
<b>Marital status<sup>a</sup></b>										
Ever married	88.6	70.9	25.9	23.0	58.3	40.0	41.4	59.3	21.9	5.5
Never married	89.3	70.6	30.2	27.3	59.4	47.0	44.4	62.0	27.0	8.0
<b>Women's education</b>										
None	86.3	67.8	25.8	23.0	54.7	38.2	38.9	55.8	19.6	5.1
Primary	92.0	73.9	27.8	25.1	62.3	44.8	46.7	64.3	26.5	6.9
Secondary+	98.2	82.5	37.2	33.6	75.7	65.2	56.8	79.8	43.3	13.4
<b>Wealth index quintiles</b>										
Poorest	77.0	57.8	19.5	17.9	42.4	29.8	26.6	38.6	11.6	3.1
Second	85.4	66.3	23.8	20.1	52.5	34.0	35.5	49.7	15.6	3.2
Middle	89.7	70.0	26.2	23.3	57.7	44.8	46.2	62.6	24.6	5.7
Fourth	93.7	75.4	31.2	27.4	65.1	45.6	46.8	68.9	26.8	8.2
Richest	94.2	78.8	33.4	30.9	69.0	53.0	51.4	72.7	34.3	10.0
Total	88.9	70.8	27.6	24.6	58.7	42.7	42.6	60.4	23.8	6.4

<sup>1</sup>MICS indicator 9.1.

<sup>a</sup>Total includes 5 unweighted cases of women missing information on marital status who are not shown separately

The results for women age 15-24 are separately presented in Table HA.2. Seventy per cent of young women know that having one faithful uninfected sex partner is a method of preventing HIV transmission. Although this proportion is highest in Maroodijeex/Saaxil region (76 per cent), there is little regional variation in other regions. Knowledge on the methods of HIV transmission prevention was generally higher among urban young women than their rural counterparts and among those with secondary levels of education and above (Figure HA.1).

**Table HA.2: Knowledge about HIV transmission, misconceptions about HIV/AIDS, and comprehensive knowledge about HIV transmission among young women**

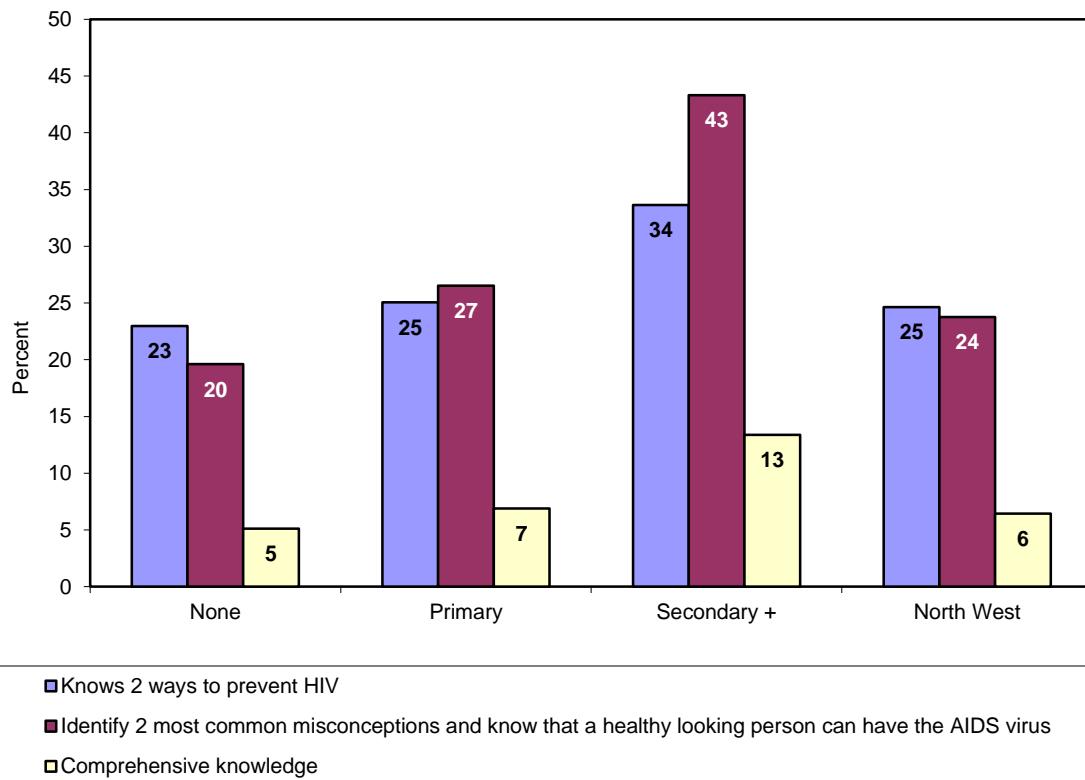
Percentage of young women age 15-24 years who know the main ways of preventing HIV transmission, percentage who know that a healthy looking person can have the AIDS virus, percentage who reject common misconceptions, and percentage who have comprehensive knowledge about HIV transmission Somaliland, 2011

	Percentage who know transmission can be prevented by:			Percentage who know that a healthy looking person can have the AIDS virus	Percentage who know that HIV cannot be transmitted by:			Percentage who reject the two most common misconceptions and know that a healthy looking person can have the AIDS virus	Percentage with comprehensive knowledge <sup>1</sup>	Number of women age 15-24
	Percentage who have heard of AIDS	Having only one faithful uninfected sex partner	Using a condom every time		Mosquito bites	Supernatural means	Sharing food with someone with AIDS			
<b>Region</b>										
Maroodijeex/Saaxil	90.9	76.2	31.7	28.8	62.1	47.8	46.7	64.1	27.4	8.6
Awdal	84.4	64.3	27.1	24.7	53.8	42.6	39.5	60.6	25.7	6.9
Togdheer	88.7	64.7	24.1	21.4	54.7	42.4	39.6	59.4	20.3	5.0
Sool	83.3	56.8	29.1	24.4	48.5	42.2	45.3	54.6	22.4	7.7
Sanaag	86.1	65.1	27.4	24.4	53.1	35.0	36.7	47.0	17.3	2.7
<b>Area</b>										
Urban	92.6	75.4	33.1	30.1	63.7	48.8	47.9	67.6	28.7	8.8
Rural	81.8	61.0	22.0	19.3	47.7	36.5	34.9	47.5	17.1	3.8
<b>Age</b>										
15-19	86.8	66.6	27.7	25.0	56.3	42.4	41.3	56.2	22.6	6.3
20-24	91.0	74.5	30.6	27.5	59.8	46.7	45.5	65.4	26.8	7.8
<b>Marital status<sup>a</sup></b>										
Ever married	87.9	70.1	27.1	24.2	55.2	39.7	39.6	55.7	19.4	5.3
Never married	88.9	70.1	29.7	26.8	58.7	45.8	44.3	61.8	26.2	7.6
<b>Women's education</b>										
None	84.1	65.4	26.7	23.9	51.0	37.9	36.9	53.2	18.0	4.6
Primary	91.1	71.8	28.0	25.6	59.1	43.6	44.8	60.7	24.2	6.7
Secondary+	97.7	80.9	37.4	33.5	75.6	63.9	58.4	80.0	43.4	14.3
<b>Wealth index quintiles</b>										
Poorest	75.6	51.6	18.3	16.3	34.8	32.9	27.3	38.7	11.5	1.7
Second	83.2	63.6	24.9	21.4	52.4	35.9	35.1	47.7	17.2	3.3
Middle	88.7	69.9	27.0	24.1	55.0	43.4	44.0	61.4	23.1	6.3
Fourth	93.5	76.1	31.8	28.7	61.8	47.6	46.2	67.1	25.4	8.2
Richest	93.1	76.5	34.5	31.7	68.5	51.2	50.8	69.5	33.4	10.5
Total	88.7	70.1	29.0	26.1	57.8	44.3	43.2	60.3	24.5	7.0
<sup>1</sup> MICS indicator 9.2; MDG indicator 6.3.										
<sup>a</sup> Total include 4 unweighted cases of women missing information on marital status who are not shown separately										

Table HA.1 and HA.2 also present the per cent of women who can correctly identify misconceptions concerning HIV. The indicator is based on the two most common and relevant misconceptions in Somaliland, that HIV can be transmitted by supernatural means and mosquito bites. Table HA.2 also provides information on whether women know that HIV cannot be transmitted by sharing food with someone with AIDS. Of the interviewed women, 24 per cent reject the two most common misconceptions and know that a healthy-looking person can be infected (Table HA.1). Sixty per cent of women know that sharing food with someone with AIDS cannot transmit the virus, and 59 per cent of women know that a healthy looking person can have the AIDS virus. Further, 43 per cent know that the virus is not transmitted through supernatural means nor through a mosquito bite.

Women who have comprehensive knowledge about HIV prevention include women who know of the two main ways of HIV prevention (having only one faithful uninfected partner and using a condom every time), who know that a healthy looking person can have the AIDS virus, and who reject the two most common misconceptions. Tables HA.1 and HA.2 also present the percentage of women with comprehensive knowledge. Comprehensive knowledge of HIV prevention methods and transmission is fairly low although there are differences by area. From table HA.1, 6 per cent of women age 15-49 were found to have comprehensive knowledge, which was slightly higher in urban areas (9 per cent). As expected, the per cent of women with comprehensive knowledge increases with the woman's education level (Figure HA.1). Knowledge on HIV prevention and transmission is higher among the urban young women than their rural counterparts while comprehensive knowledge is higher among those who have achieved secondary level or education or above (14 per cent) and increases with household wealth index quintiles (Table HA.2).

**Figure HA.1: Percentage of women who have comprehensive knowledge of HIV/AIDS transmission by education levels, Somaliland, 2011**



Knowledge of mother-to-child transmission of HIV is also an important first step for women to seek HIV testing when they are pregnant to avoid infection in the baby. Women should know that HIV can be transmitted during pregnancy, during delivery, and through breastfeeding. The level of knowledge among women age 15-49 years concerning mother-to-child transmission is presented in Table HA.3. Overall, 77 per cent of women know that HIV can be transmitted from mother to child. The percentage of women who know all three ways of mother-to-child transmission is 53 per cent, while 12 per cent of women did not know of any specific way. The proportion of those who do not know any of the specific methods is higher in rural areas. The percentages of women who know that HIV can be transmitted during pregnancy, during delivery or by breastfeeding are: 62, 68 and 69 per cent, respectively.

**Table HA.3: Knowledge of mother-to-child HIV transmission**

Percentage of women age 15-49 years who correctly identify means of HIV transmission from mother to child, Somaliland, 2011

	Percentage who know HIV can be transmitted from mother to child	Percent who know HIV can be transmitted:				Does not know any of the specific means	Number of women
		During pregnancy	During delivery	By breastfeeding	All three means <sup>1</sup>		
<b>Region</b>							
Maroodijeex/Saaxil	81.1	64.5	72.0	70.8	54.5	10.0	2,925
Awdal	72.6	56.9	64.3	66.4	50.8	14.2	841
Togdheer	73.5	60.8	64.8	66.0	52.9	13.4	1,078
Sool	72.1	59.6	67.4	65.7	53.4	13.2	314
Sanaag	74.8	60.4	64.6	67.9	50.9	11.6	707
<b>Area</b>							
Urban	83.6	66.5	73.9	73.3	56.7	9.8	3,378
Rural	68.7	55.8	60.9	62.4	48.5	14.1	2,487
<b>Age group</b>							
15-24	76.2	60.2	66.4	67.6	51.0	12.4	2,600
15-19	73.6	58.8	63.4	65.7	49.4	13.2	1,451
20-24	79.5	62.1	70.3	70.1	53.0	11.5	1,148
25-29	79.8	64.4	70.2	71.1	55.0	10.6	1,060
30-39	76.9	62.4	69.6	68.5	54.5	10.9	1,404
40-49	78.0	63.7	70.6	69.3	55.7	11.6	802
<b>Marital status<sup>a</sup></b>							
Ever married	77.2	62.7	69.0	69.8	54.9	11.5	3,612
Never married	77.5	60.9	67.6	67.0	50.4	11.8	2,248
<b>Education</b>							
None	73.2	59.3	64.8	65.7	51.3	13.1	3,956
Primary	82.1	65.3	71.7	71.6	54.3	9.9	1,227
Secondary+	92.1	71.8	83.7	80.8	61.9	6.0	682
<b>Wealth index quintiles</b>							
Poorest	56.0	46.6	49.5	50.7	40.9	21.0	920
Second	73.5	59.2	65.9	66.8	52.1	11.9	1,068
Middle	78.7	63.1	69.2	71.6	54.9	10.9	1,162
Fourth	83.6	66.9	74.7	72.7	56.1	10.0	1,254
Richest	86.8	68.5	76.2	75.6	57.9	7.4	1,461
Total	77.3	62.0	68.4	68.7	53.2	11.6	5,865

<sup>1</sup> MICS indicator 9.3.<sup>a</sup>Total includes 5 unweighted cases of women missing information on marital status who are not shown separately

## Accepting Attitudes toward People Living with HIV/AIDS

The indicators on attitudes toward people living with HIV measure stigma and discrimination in the community. Stigma and discrimination are low if respondents report an accepting attitude on the following four questions: 1) Would care for family member sick with AIDS; 2) would buy fresh vegetables from a vendor who is HIV positive; 3) thinks that a female teacher who is HIV positive should be allowed to teach in school; and 4) would **not** want to keep HIV status of a family member a secret. Table HA.4 presents the attitudes of women towards people living with HIV/AIDS. In Somaliland, 94 per cent of women who have heard of AIDS agree with at least one accepting attitude. The most common accepting attitude is willing to care for a family member with the AIDS virus in own home (69 per cent). There are minimal variations in the percentages of accepting attitudes between women living in rural or urban areas, as well as based on marital status. More

educated women and those from richest households have more accepting attitudes than the ones with lower education and a poorer wealth status. Only 8 per cent of women expressed accepting attitudes on all four indicators with a higher percentage in urban areas (11 per cent), women with secondary or higher education (16 per cent) and the never married women (10 per cent).

**Table HA.4: Accepting attitudes toward people living with HIV/AIDS**

Percentage of women age 15-49 years who have heard of AIDS who express an accepting attitude towards people living with HIV/AIDS, Somaliland, 2011

	Percentage of women who:						Number of women who have heard of AIDS
	Are willing to care for a family member with the AIDS virus in own home	Would buy fresh vegetables from a shopkeeper or vendor who has the AIDS virus	Believe that a female teacher with the AIDS virus and is not sick should be allowed to continue teaching	Would not want to keep secret that a family member got infected with the AIDS virus	Agree with at least one accepting attitude	Express accepting attitudes on all four indicators <sup>1</sup>	
<b>Region</b>							
Maroodijeex/Saaxil	72.7	32.9	35.2	65.4	94.5	9.7	2,669
Awdal	68.5	25.4	29.0	68.5	92.2	6.9	731
Togdheer	67.5	23.3	30.9	70.1	95.4	7.2	937
Sool	55.0	21.0	23.1	68.2	92.8	5.8	260
Sanaag	61.6	25.5	27.5	70.0	94.0	6.5	614
<b>Area</b>							
Urban	72.3	33.2	37.2	67.2	95.0	10.6	3,155
Rural	64.0	21.7	24.2	67.7	93.0	4.8	2,056
<b>Age</b>							
15-24	68.8	30.6	33.0	66.0	94.0	9.1	2,303
15-19	67.8	30.8	31.9	64.3	93.7	8.6	1,258
20-24	70.0	30.4	34.4	68.0	94.5	9.7	1,045
25-29	70.4	28.2	33.9	69.2	95.2	8.0	957
30-39	68.8	25.7	29.6	67.8	94.1	6.7	1,233
40-49	68.2	27.9	30.7	68.7	93.7	8.8	718
<b>Marital status<sup>a</sup></b>							
Ever married	68.1	26.2	30.1	68.6	94.2	7.0	3,203
Never married	70.5	32.5	35.1	65.5	94.2	10.3	2,004
<b>Education</b>							
None	67.7	25.7	28.7	67.0	93.8	6.5	3,417
Primary	68.1	30.2	34.9	67.9	94.3	9.2	1,128
Secondary+	77.1	41.1	44.8	68.3	96.0	15.9	667
<b>Wealth index quintiles</b>							
Poorest	60.6	19.7	24.0	64.1	91.2	3.2	710
Second	67.1	22.4	25.3	66.9	94.0	5.6	912
Middle	64.4	27.7	29.3	71.1	94.4	7.4	1,040
Fourth	73.8	30.5	37.2	69.3	94.9	10.7	1,174
Richest	74.0	36.6	38.4	64.9	95.1	11.4	1,376
Total	69.0	28.6	32.1	67.4	94.2	8.3	5,212

<sup>1</sup> MICS indicator 9.4.

<sup>a</sup>Total include 5 unweighted cases of women missing information on marital status who are not shown separately

### Knowledge of a Place for HIV Testing, Counselling and Testing during Antenatal Care

Another important indicator is the knowledge of where to be tested for HIV and use of such services. In order to protect themselves and to prevent infecting others, it is important for individuals to know their HIV status. Knowledge of own status is also a critical factor in the decision to seek treatment. Questions related to knowledge among women of a facility for HIV testing and whether they have ever been tested are presented in Table HA.5. Twenty eight per cent of women knew where to be tested, while 6 per cent have actually been tested. Of these, half of the proportion has been tested

and told the result within the last 12 months (3 per cent). Twice as many married women have ever been tested compared to those never married while testing increased with educational attainment.

**Table HA.5: Knowledge of a place for HIV testing**

Percentage of women age 15-49 years who know where to get an HIV test, percentage of women who have ever been tested, percentage of women who have been tested in the last 12 months, and percentage of women who have been tested and have been told the result, Somaliland, 2011

	Percentage of women who:				
	Know a place to get tested <sup>1</sup>	Have ever been tested	Have been tested in the last 12 months	Have been tested in the last twelve months and have been told result <sup>2</sup>	Number of women
<b>Region</b>					
Maroodijeex/Saaxil	33.2	8.0	4.0	3.6	2,925
Awdal	26.9	6.7	3.8	3.3	841
Togdheer	25.4	3.6	1.7	1.7	1,078
Sool	19.5	1.8	0.3	0.3	314
Sanaag	18.6	3.5	1.1	1.0	707
<b>Area</b>					
Urban	36.8	8.4	4.1	3.7	3,378
Rural	16.9	3.1	1.5	1.3	2,487
<b>Age</b>					
15-24	27.9	5.1	2.7	2.5	2,600
15-19	24.8	3.3	1.6	1.6	1,451
20-24	31.8	7.4	4.1	3.8	1,148
25-29	30.6	7.8	3.3	3.0	1,060
30-39	28.1	7.4	3.8	3.4	1,404
40-49	27.4	5.1	2.1	1.8	802
<b>Marital status<sup>a</sup></b>					
Ever married	27.9	7.5	3.6	3.3	3,612
Never married	29.1	4.0	2.0	1.8	2,248
<b>Education</b>					
None	23.9	5.0	2.5	2.2	3,956
Primary	31.6	7.9	3.4	3.2	1,227
Secondary+	48.5	9.7	5.3	5.0	682
<b>Wealth index quintiles</b>					
Poorest	12.1	2.1	0.6	0.6	920
Second	18.0	4.2	2.6	2.3	1,068
Middle	28.4	5.8	3.3	3.0	1,162
Fourth	36.5	8.2	4.2	3.7	1,254
Richest	39.1	8.7	3.6	3.3	1,461
Total	28.4	6.2	3.0	2.7	5,865

<sup>1</sup> MICS indicator 9.5

<sup>2</sup> MICS indicator 9.6

<sup>a</sup>Total include 5 unweighted cases of women missing information on marital status who are not shown separately

Among women who had given birth within the two years preceding the survey, the per cent who received counselling and HIV testing during antenatal care is presented in Table HA.6. Thirty two per cent of women who gave birth in the last 2 years received ANC from a health professional during the last pregnancy. About 5 per cent received HIV counselling during ANC while 3 per cent were offered HIV test and were tested for HIV, and received their results.

**Table HA.6: HIV counseling and testing during antenatal care**

Among women age 15-49 who gave birth in the last 2 years, percentage of women who received antenatal care from a health professional during the last pregnancy, percentage who received HIV counselling, percentage who were offered and accepted an HIV test and received the results, Somaliland, 2011

	Percentage of women who:					
	Received antenatal care from a health care professional for last pregnancy	Received HIV counselling during antenatal care <sup>1</sup>	Were offered an HIV test and were tested for HIV during antenatal care	Were offered an HIV test and were tested for HIV during antenatal care, and received the results <sup>2</sup>	Received HIV counselling, were offered an HIV test, accepted and received the results	Number of women who gave birth in the 2 years preceding the survey
<b>Region</b>						
Maroodijeex/Saaxil	39.5	4.9	4.1	3.4	1.6	715
Awdal	32.9	9.9	6.6	4.9	4.1	244
Togdheer	23.1	1.6	0.9	0.9	0.6	321
Sool	26.8	5.1	0.0	0.0	0.0	90
Sanaag	18.8	2.8	1.4	0.8	0.8	200
<b>Area</b>						
Urban	47.6	5.9	5.1	4.4	2.5	758
Rural	16.9	3.7	1.6	0.9	0.8	812
<b>Age</b>						
15-24	28.7	2.9	2.8	2.3	1.5	382
15-19	27.2	2.8	0.0	0.0	0.0	71
20-24	29.0	2.9	3.4	2.8	1.9	310
25-29	34.1	4.6	3.2	2.8	1.4	497
30-39	32.0	6.0	3.9	3.0	2.2	584
40-49	30.4	5.7	1.9	0.9	0.0	107
<b>Marital status</b>						
Ever married	31.7	4.7	3.3	2.6	1.6	1,570
<b>Education</b>						
None	27.2	4.0	2.5	2.0	1.2	1,237
Primary	44.4	6.5	6.1	4.5	3.0	260
Secondary+	64.2	10.6	6.6	6.6	4.0	73
<b>Wealth index quintiles</b>						
Poorest	9.0	2.0	0.3	0.3	0.3	325
Second	17.0	2.7	1.8	1.2	0.6	342
Middle	30.5	5.7	4.1	3.4	2.8	313
Fourth	48.1	6.8	5.0	3.7	2.2	317
Richest	59.6	7.0	5.7	4.9	2.4	274
Total	31.7	4.7	3.3	2.6	1.6	1,570

<sup>1</sup> MICS indicator 9.8

<sup>2</sup> MICS indicator 9.9

### XIII. Access to Mass Media and Use of Information/Communication Technology

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The 2011 Somaliland MICS collected information on exposure to mass media and the use of computers and the internet.

Information is collected on:

- exposure to newspapers/magazines, radio and television among women age 15-49,
- use of computers among 15-24 year-olds, and
- use of the internet among 15-24 year-olds.

#### Access to Mass Media

The proportion of women who read a newspaper, listen to the radio and watch television at least once a week is shown in table MT.1.

At least once a week, 15 per cent of women in Somaliland read a newspaper, 26 per cent listen to the radio and 33 per cent watch television. Overall, 10 per cent do not have regular exposure to any of the three media, while 7 per cent are exposed to all the three types of media at least on a weekly basis.

**Table MT.1: Exposure to mass media**

Percentage of women age 15-49 years who are exposed to specific mass media on a weekly basis, Somaliland, 2011

	Percentage of women age 15-49 who:			All three media at least once a week <sup>1</sup>	No media at least once a week	Number of women age 15-49 years
	Read a newspaper at least once a week	Listen to the radio at least once a week	Watch television at least once a week			
<b>Age</b>						
15-19	25.0	25.8	41.4	9.6	16.8	1,451
20-24	20.1	28.2	40.9	9.1	9.7	1,148
25-29	12.4	24.6	32.9	5.4	7.7	1,060
30-34	7.0	24.3	21.8	3.3	6.5	731
35-39	8.5	26.0	25.6	4.0	5.5	673
40-44	7.0	25.7	20.2	4.1	7.0	540
45-49	5.0	28.2	23.9	2.2	6.0	262
<b>Region</b>						
Maroodijeex/Saaxil	20.2	34.4	46.1	9.5	5.3	2,925
Awdal	16.0	26.5	33.6	7.5	9.8	841
Togdheer	8.3	15.7	15.0	1.7	16.3	1,078
Sool	6.9	13.8	12.5	1.7	18.3	314
Sanaag	6.6	11.7	13.0	2.2	14.6	707
<b>Area</b>						
Urban	23.1	32.8	52.7	10.5	7.1	3,378
Rural	4.1	16.7	5.8	1.0	13.5	2,487
<b>Education</b>						
None	2.6	20.2	21.6	1.0	3.4	3,956
Primary	30.1	32.8	44.8	10.5	31.4	1,227
Secondary+	60.2	47.5	75.8	31.2	8.2	682
<b>Wealth index quintile</b>						
Poorest	0.5	5.8	0.6	0.0	10.1	920
Second	3.1	19.2	2.0	0.0	13.5	1,068
Middle	9.6	21.7	11.3	1.7	16.1	1,162
Fourth	17.6	29.5	47.1	6.0	9.0	1,254
Richest	35.1	44.0	80.3	19.6	2.6	1,461
Total	15.0	26.0	32.8	6.5	9.8	5,865

<sup>1</sup> MICS indicator MT.1

Exposure to all three types of mass media decreases with age ranging from 10 per cent in younger women aged 15 – 19 to 2 per cent in women age 45 – 59 years (Table MT.1). Strong differentials by area, education and socio-economic status are observed for exposure to all types of media, primarily due to differentials in exposure to newspaper and television.

Exposure to all the types of media is three times more for women with higher education than women with primary education. Similarly, 20 per cent of women in the highest wealth index quintile have been exposed to all the three media forms, while no women in the lowest wealth index quintile have been exposed to all the 3 types of media. Larger proportions of women are exposed to all the media types in urban areas (11 per cent) than in rural areas where barely any women have been exposed to all the three types of mass media (1 per cent). Exposure of women to all the three mass media is greatest in Maroodijeex/Saaxil (10 per cent) and lowest in the Togdheer and Sool regions (2 per cent).

### **Use of Information/Communication Technology**

The questions on computer and internet use were asked only to 15-24 year old women.

As displayed in Table MT.2, 17 per cent of 15-24 year old women ever used a computer, 13 per cent used a computer during the last year and 12 per cent used at least once a week during the last month. Overall, 16 per cent of women age 15-24 ever used the internet, while 14 per cent surfed the internet during the last year. The proportion of young women who used the internet more frequently, at least once a week during the last month is smaller, at 12 per cent.

Use of both the computer and internet during 12 months before the survey was more widespread among the 20-24 year old women. It is also highest in the urban areas, among educated women and among those women in the richest wealth index quintile.

About 11 per cent of women with primary education report using a computer during the last year, while almost half (51 per cent) of women with secondary or higher education used a computer. Similarly higher utilisation of the internet was observed among young women in urban areas (24 per cent) compared to those in rural areas (3 per cent). The use of the internet during the last year is greatest in the Maroodijeex/Saaxil region (19 per cent) and lowest in the Sanaag region (4 per cent), while the proportion is 33 per cent for young women in the richest households, as opposed to those living in the poorest households(less than one per cent).

**Table MT.2: Use of computers and internet**

Percentage of young women age 15-24 who have ever used a computer, percentage who have used a computer during the last 12 months, and frequency of use during the last one month, Somaliland, 2011

	Percentage of women age 15-24 who have:		Percentage of women age 15-24 who have:			Number of women age 15-24 years
	Ever used a computer during the last 12 months <sup>1</sup>	Used a computer at least once a week during the last one month	Ever used the internet	Used the internet during the last 12 months <sup>2</sup>	Used the internet at least once a week during the last one month	
<b>Age</b>						
15-19	16.1	12.4	10.9	14.4	12.8	11.1 1,451
20-24	18.9	14.1	12.4	18.8	16.3	13.5 1,148
<b>Region</b>						
Maroodijeex/Saaxil	22.7	17.4	15.7	22.0	19.3	16.5 1,322
Awdal	22.8	18.0	16.1	19.8	18.2	16.1 363
Togdheer	7.3	5.3	4.7	7.7	5.9	5.1 487
Sool	9.2	5.7	3.5	8.5	8.5	5.5 133
Sanaag	6.7	4.2	2.1	4.6	3.9	2.6 295
<b>Area</b>						
Urban	25.0	19.1	17.1	23.9	21.2	18.2 1,649
Rural	4.1	2.8	1.9	3.4	2.5	1.7 950
<b>Education</b>						
None	3.3	1.5	1.3	2.7	2.2	1.8 1,354
Primary	14.1	10.6	8.9	13.9	11.2	9.1 778
Secondary+	63.2	50.9	45.6	60.2	54.5	47.2 468
<b>Wealth index quintile</b>						
Poorest	0.3	0.0	0.0	0.7	0.3	0.0 316
Second	1.0	0.5	0.2	1.5	0.5	0.2 409
Middle	7.8	4.8	3.3	6.4	5.3	4.5 483
Fourth	18.1	12.8	10.7	15.7	13.0	10.5 583
Richest	37.5	29.9	27.3	36.6	33.2	28.8 807
Total	17.3	13.1	11.5	16.4	14.3	12.2 2,600

<sup>1</sup> MICS indicator MT.2

<sup>2</sup> MICS indicator MT.3

## Appendix A. Sample Design

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The major features of the sample design are described in this appendix. Sample design features include target sample size, sample allocation, sampling frame and listing, choice of domains, sampling stages, stratification, and the calculation of sample weights.

The primary objective of the sample design for the Somaliland Multiple Indicator Cluster Survey was to produce statistically reliable estimates of most indicators for the whole Somaliland, for urban and rural areas, and for the five regions (Maroodijeex/Sahil, Awdal, Togdheer, Sool and Sanaag) of the country. There were two main sampling strata: rural and urban areas.

A multi-stage, stratified cluster sampling approach was used for the selection of the survey sample.

### Sample Size and Sample Allocation

The target sample size for the Somaliland MICS was calculated as 5179 households. For the calculation of the sample size, the key indicator used was the polio immunization coverage for children aged 12 – 23 months. The following formula was used to estimate the required sample size for this indicator:

$$n = \frac{[ 4 (r) (1-r) (f) (1.1) ]}{[ (0.12r)^2 (p) (n_h) ]}$$

Where:

- $n$  is the required sample size, expressed as number of households
- 4 is a factor to achieve the 95 per cent level of confidence
- $r$  is the predicted or anticipated prevalence (coverage rate) of the indicator. The polio immunization coverage for children aged 12 – 23 months is 34.8% (MICS 2006)
- 1.1 is the factor necessary to raise the sample size by 10 per cent for non-response
- $f$  is the shortened symbol for *deff*(design effect). 1.75 was taken as a default, similar to that used in MICS 2006.
- $0.12r$  is the margin of error to be tolerated at the 95 per cent level of confidence, defined as 12 per cent of  $r$  (relative sampling error of  $r$ )
- $p$  is the proportion of the total population upon which the indicator,  $r$ , is based. Percentage of children aged 12 -23 months in total population was taken as 3.2% (MICS 2006)
- $n_h$  is the average household size. The average household size was taken as 5.7 (MICS 2006)
- 

The resulting number of households from the calculations was **5,179** households in total.

Separately in urban and rural areas, the total number of households was distributed to regions proportionally to the population size of that region. The table below shows the allocation of clusters to the sampling strata.

**Table SD.1: Allocation of Sample Clusters (Primary Sampling Units) to Sampling Strata**

Region	Population (2005 UNDP Estimates)			Number of Clusters		
	Total	Urban	Rural	Urban	Rural	Total
Maroodijeex /Sahil	728,079	498,100	229,979	82	39	121
Awdal	255,846	113,100	142,746	18	25	43
Togdheer	406,866	144,806	262,060	24	44	68
Sool	95,146	31,200	63,946	4	11	15
Sanaag	256,874	43,260	213,614	8	33	41
<b>Total</b>	<b>1,742,811</b>	<b>792,566</b>	<b>950,245</b>	<b>136</b>	<b>152</b>	<b>288</b>

### **Sampling frame and sample selection**

The sampling frame was the list of settlements obtained from the 2005/2006 UNDP settlement census and which was updated in preparation for the Somalia population estimation survey. For each settlement, this list contained an estimated number of households and the classification by urban and rural.

Stratification consisted of separating urban and rural settlements within each region. Settlements were then used as primary sampling units and were selected with probability proportional to size, the size being the estimated number of households. Very large settlements were selected with certainty as self-representing units (that is with probability equal to 1).

In rural areas and small towns, settlements with more than 200 households were divided into segments of which one was randomly selected. All households in the selected segment were listed to create a frame for the selection of 18 households at the second stage using systematic sampling.

For very large settlements, the list of villages and sections that comprised each settlement served as frame for the second stage selection (secondary sampling units). Each selected village and section was segmented if it contained more 200 households. One of the newly created segments was then randomly selected and all of the households it contained were listed. In the final stage, 18 households were selected from the household listing. In villages and sections containing 200 households or less, a complete household listing was carried out and 18 households were directly selected from the list of households.

### **Calculation of Sample Weights**

The sample for Somaliland was implemented according to its design. However, information on segmentation was not systematically captured at the field level for most of the clusters. As a result, information was incomplete for most clusters. Based on this finding, it was decided not to calculate the weights at cluster level. The sampling weights were calculated at stratum level.

The major component of the weight is the reciprocal of the sampling fraction employed in selecting the number of sample households in a particular sampling stratum (h):

$$W_{hi} = \frac{1}{f_{hi}}$$

The term  $f_{hi}$ , the sampling fraction for the  $h$ -th stratum, is defined as  $f_h = \frac{n_h}{N_h}$

where

$n_h$  is the number of households selected from stratum  $h$

$N_h$  is the total number of households in stratum  $h$

A second component in the calculation of sample weights takes into account the level of non-response for the household and individual interviews. The adjustment for household non-response is equal to the inverse value of:

$$RR_h = \text{Number of interviewed households in stratum } h / \text{Number of occupied households listed in stratum } h$$

After the completion of fieldwork, response rates were calculated for each sampling stratum. These were used to adjust the sample weights calculated for each stratum. Response rates in the Somaliland Multiple Indicator Cluster Survey are shown in Table HH.1 in this report.

Similarly, the adjustment for non-response at the individual level (women and under-5 children) for each stratum is equal to the inverse value of:

$$RR_h = \text{Completed women's (or under-5's) questionnaires in stratum } h / \text{Eligible women (or under-5s) in stratum } h$$

The non-response adjustment factors for women's and under-5's questionnaires were applied to the adjusted household weights. Numbers of eligible women and under-5 children were obtained from the roster of household members in the Household Questionnaire for households where interviews were completed.

The sample weights for the households were calculated by multiplying the above factors for each stratum. These weights were then standardized (or normalized), one purpose of which is to make the weighted sum of the interviewed sample units equal the total sample size at the national level. Normalization is performed by multiplying the sample weights by a constant factor equal to the unweighted number of households at the national level divided by the weighted total number of households (using the full sample weights adjusted for nonresponse). A similar standardization procedure was followed in obtaining standardized weights for the women's and under-5's questionnaires. Adjusted (normalized) weights varied between 0.81 and 1.12.

Sample weights were appended to all data sets and analyses were performed by weighting each household, woman or under-5 with these sample weights.

## Appendix B. List of Personnel Involved in the Survey

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### MICS4 Technical Committees

MICS4 Technical Committee members - Nairobi	
Name	Organization
Bo Pedersen	UNICEF ESARO
Debra Bowers	UNICEF PME
Volker Huls	UNICEF PME
Sicily Matu	UNICEF PME
Nancy Balfour	UNICEF WASH
Zaid Jurji	UNICEF WASH
Lars Jensen	UNICEF S/L
Peter Hailey	UNICEF Nutrition
Osamu Kunii	UNICEF ACSD
Sheema Sen Gupta	UNICEF CP
Isabella Castrogiovanni	UNICEF CP
Chiara Pierotti	UNICEF GF
Mette Nordstrand	UNICEF Education
Woki Munyui	UNICEF Education
Teija Vallandingham	UNICEF Education
Grainne Moloney	FSNAU/FAO
Sriram Pande	UNDP
Richard Ngetich	UNDP
Uffe Poulsen	UNICEF JPLGDSD
Abraham Mulugeta	WHO
Raul Kamadjeu	WHO
Simon Renk	WFP
Niaz Mohammed	UNFPA
Stephen Macharia	UNFPA

MICS4 Technical Committee members - Hargeisa	
Hassan Abdillahi Jama	MoNPD
Ahmed Diriye	MoNPD
Mohamed Jama Farah	MoE
Khadar Mohamed	MoHL
Abdillahi Abdi Yusuf	MoHL
Saeed Dualeh Mohamed	MoW&MR
Abdirhaman Farah Omer	MoW&MR
Awale M Awale	MoFA&SD
Mohamed Ismail	MoInterior
Ahmed Hassan Yusuf	MoInformation
Asha Hussein Adam	UNICEF
Amran Ibrahim	FSNAU/FAO
Nura Gureh	FSNAU/FAO
Salada Roble	UNFPA
Ahmed Mihile	UNDP
Musa Warsame	WFP
Nasir Abdi Hirsi	WHO

<b>Survey Teams and ToTs Trainers</b>	
<b>Name</b>	<b>Organization</b>
Pierre Martel	UNICEF
Bo Pedersen	UNICEF
Sicily Matu	UNICEF
Peter Kingori	UNICEF
Oztas Ayhan	UNICEF
Austin Mueke	UNICEF
Aleksandar Zoric	UNICEF
Asha Hussein Adam	UNICEF
Mohammed Dhaqane	UNICEF
Hassan Jama	MoNPD
Ahmed Hassan Yusuf	ANPPCAN
Idris Nur Mohamed	ANPPCAN
Abdulkadir Ali Ghelle	SDRA
Mohamed Ali Ismail	SAREDO
Yahye Ali Obsiye	MoNPD
Louise Masese	FSNAU/FAO
<b>Key resource persons for specific modules during the training</b>	
Agnes Makanyi	UNICEF – WASH
Woki Munyui	UNICEF – Education
Imran Ravji	UNICEF – Health
Awil Gureh	UNICEF – Health
Maryan Yussuf Fahiyeh	UNICEF - Health
Safia Jibril	UNICEF – CP
Abdirashid Hashi Abdi	UNICEF – GF
Ahmed Jama	UNICEF - GF
Ahmed M. Jama	UNICEF Health
Khadra Mohamud	MoHL
Louise Masese	FSNAU/FAO

## MICS4 Survey Teams

<b>Team 1</b>	
Team leader (MoNPD)	Ahmed Yousuf Jamac
Supervisor	Abdikadir Esse Hussein
Editors	Yasin Mahamed Farah Kayse Kosar Elmi
Enumerators	Sahra Cartanaw Jama Hodan Ahmed Jama ZamZam Mahamed Jama Nimco Ali Dahir Nura Mukhtar ShukriOdawaa
Sketch mapper	Jamac Hassan Deman
GPS operator	Mahamed Saleban Ali
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Team leader (MoH)	Awale Mahamed Muse
Supervisor	Abdirahaman Dahir Abtidoon
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Enumerators	Nadira Jamal Jama Maria Abdulahi Gahayr Hamda Mohamed Khaire Amina Abdulahi farah Hodan Mohamed Hassan Hodan Ahmed Jama
Sketch mapper	A Kadir Samriye
GPS operator	Jama Abdi Ali
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Team leader (FAO)	Abdirahi Warsame
Supervisor	Mahmad Abdi ARab
Editors	Mustafe Mahamed Hassan Ahmed Ali Mahamed
Enumerators	HodanYussuf Asker Naciima Mohamed Abdi Nimco Ismail Sheikh Ibrahim Farduus Abdi Jibriil Kaltun Ali Mohamed
Enumerator	Fadumo Osman Abdi
GPS operator	Mahamed Abdi Adan
Sketchmapper	Abdirisak Farah

<b>Team 4</b>	
Team leader (MoH)	Faysal Omer Madar
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Enumerators	Samira Muse Ahmed Najah Bashir Diriye Muna Mahamed Jibril Naseem Farah Hassan Hana Ibrahim Mahomed Ido Muse Ismail
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Sketch mapper	Majid Abdisalan
<b>Team 5</b>	
Team leader	Abdirahman Mahamed Abdilahi
Supervisor	Abdilahi Hasan Ali
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Team leader (UNICEF)	Luul Dirir Mirreh
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Enumerators	NimcoYussuf Sheikh Omerh Maryan Mahamed Hirad Faadumo Ahmed Ismail Asha Ali Fatah Muna Mahamed Cilmi Shukri Saed Axmed
GPS operator	Ismail Cabdi Xirsi
Sketch mapper	Ahmed Mohamed Said
<b>Team 7</b>	
Team leader (UNICEF)	Hassan Muse
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Editors	Rajab Mahamud Ahmed Mahad HussainAbdi
Enumerators	Faduma Jama Hussuin Na'ima Mohamed Abdi Muna Ali Ahmed Khadra Mohamed Ali Hibo Abdulahi Ismail Muna Hassan Mahamed
GPS operator	Mustafe Mahamed Mahamud
Sketch mapper	Said Mahamed Abdi

<b>Team 8</b>	
Team leader (UNICEF)	Mahamed Hussein Hassan
Supervisor	Bashiir Muhumed Adan
Editors	Abdirahman Mahamed Omer Mahamed Ahmed Hussein
Enumerators	Suhur Fathxi Mukhtar Sucad Abdi Mahamed Salwa Ali Farah Yasmin Mahamed Abdilahi Sahra Ahmed Mohamed Sabah Mahamed Hussein
Sketch mapper	Ishaq MahamedTani
GPS Operator	Abidrahman Muse
<b>Team 9</b>	
Team leader /annapcan	Sabah Diriye Yousuf
Supervisor	Ali Abiib Hassan
Editors	Mustafe Mahdi Dahir Abdirahman Mahamed
Enumerators	Yasmin Omer Haji Mohamed Sadia Mahamed Daud Ruqiya Omer Mumin Hodan Ahmed Farah Naciima Abdijama Samiira Hussein Caynaashe
GPS	Hamse Mahamed Ahmed
Sketch mapper	Mahamed Awil
<b>Team 10</b>	
Team leader (UNICEF)	Safia Jibril Yonis
Supervisor	Abdale Yasin
Editors	EidAdan Ali Abdihakin Mumin Egeh
Enumerators	Hoodo Abdurahman Osman Ifrah Ahmed Hassan Nasrin Osman Haji Mahamud Amina Abdilahi Hassan Hodan Hassan Muse
GPS Operator	Mahad Mahamed Nuh
Sketch mapper	Yussuf Ahmed Ali

## Appendix C. Estimates of Sampling Errors

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The sample of respondents selected in the Somaliland Multiple Indicator Cluster Survey is only one of the samples that could have been selected from the same population, using the same design and size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability between the estimates from all possible samples. The extent of variability is not known exactly, but can be estimated statistically from the survey data.

The following sampling error measures are presented in this appendix for each of the selected indicators:

- **Standard error (se):** Sampling errors are usually measured in terms of standard errors for particular indicators (means, proportions etc). Standard error is the square root of the variance of the estimate. The Taylor linearization method is used for the estimation of standard errors.
- **Coefficient of variation (se/r)** is the ratio of the standard error to the value of the indicator, and is a measure of the relative sampling error.
- **Design effect (deff)** is the ratio of the actual variance of an indicator, under the sampling method used in the survey, to the variance calculated under the assumption of simple random sampling. The square root of the design effect (*deft*) is used to show the efficiency of the sample design in relation to the precision. A *deft* value of 1.0 indicates that the sample design is as efficient as a simple random sample, while a *deft* value above 1.0 indicates an increase in the standard error due to the use of a more complex sample design.
- Confidence limits are calculated to show the interval within which the true value for the population can be reasonably assumed to fall, with a specified level of confidence. For any given statistic calculated from the survey, the value of that statistic will fall within a range of plus or minus two times the standard error ( $r + 2.se$  or  $r - 2.se$ ) of the statistic in 95 per cent of all possible samples of identical size and design.

For the calculation of sampling errors from MICS data, SPSS Version 18 Complex Samples module has been used. The results are shown in the tables that follow. In addition to the sampling error measures described above, the tables also include weighted and unweighted counts of denominators for each indicator.

Sampling errors are calculated for indicators of primary interest, for the national level, for urban and rural areas, and for the regions. One of the indicators is based on households, 8 selected indicators are based on household members, 20 are based on women, and 15 are based on children under 5. All indicators presented here are in the form of proportions. Table SE.1 shows the list of indicators for which sampling errors are calculated, including the base population (denominator) for each indicator. Tables SE.2 to SE.8 show the calculated sampling errors for selected domains.

**Table SE.1: Indicators selected for sampling error calculations**

List of indicators selected for sampling error calculations, and base populations (denominators) for each indicator, Somaliland, 2011

<b>MICS4 Indicator</b>		<b>Base Population</b>
<b>HOUSEHOLDS</b>		
3.12	Household availability of insecticide-treated nets (ITNs)	All households
<b>HOUSEHOLD MEMBERS</b>		
4.1	Use of improved drinking water sources	All household members
4.3	Use of improved sanitation	All household members
7.5	Secondary school net attendance ratio (adjusted)	Children of secondary school age
8.2	Child labour	Children age 5-14 years
9.18	Prevalence of children with one or both parents dead	Children age 0-17 years
9.19	School attendance of orphans	Children age 10-14 years who have lost both parents
9.20	School attendance of non-orphans	Children age 10-14 years, whose parents are alive, and who are living with at least one parent
8.5	Violent discipline	Children age 2-14 years
<b>WOMEN</b>		
	Pregnant women	Women age 15-49 years
3.19	Pregnant women sleeping under insecticide-treated nets (ITNs)	Pregnant women
3.20	Intermittent preventive treatment for malaria	Women age 15-49 years with a live birth in the 2 years preceding the survey
5.2	Early childbearing	Women age 20-24 years
5.3	Contraceptive prevalence	Women age 15-49 years who are currently married
5.4	Unmet need	Women age 15-49 years who are currently married
5.5a	Antenatal care coverage - at least once by skilled personnel	Women age 15-49 years with a live birth in the 2 years preceding the survey
5.5b	Antenatal care coverage – at least four times by any provider	Women age 15-49 years with a live birth in the 2 years preceding the survey
5.7	Skilled attendant at delivery	Women age 15-49 years with a live birth in the 2 years preceding the survey
5.8	Institutional deliveries	Women age 15-49 years with a live birth in the 2 years preceding the survey
5.9	Caesarean section	Women age 15-49 years with a live birth in the 2 years preceding the survey
7.1	Literacy rate among young women	Women age 15-24 years
8.7	Marriage before age 18	Women age 20-49 years
8.9	Polygyny	Women age 15-49 years who are currently married
8.12	Prevalence of female genital mutilation/cutting (FGM/C) among women	Women age 15-49 years
9.2	Comprehensive knowledge about HIV prevention among young people	Women age 15-24 years
9.3	Knowledge of mother- to-child transmission of HIV	Women age 15-49 years
9.4	Accepting attitudes towards people living with HIV	Women age 15-49 years who have heard of HIV
9.6	Women who have been tested for HIV and know the results	Women age 15-49 years
8.13	Prevalence of female genital mutilation/cutting (FGM/C) among girls	Girls age 0-14 years
<b>UNDER-5s</b>		
2.6	Exclusive breastfeeding under 6 months	Total number of infants under 6 months of age
2.14	Age-appropriate breastfeeding	Children age 0-23 months
-	Tuberculosis immunization coverage	Children age 12-23 months

**Table SE.1: Indicators selected for sampling error calculations**

List of indicators selected for sampling error calculations, and base populations (denominators) for each indicator, Somaliland, 2011

MICS4 Indicator	Base Population
- Received polio immunization	Children age 12-23 months
- Received DPT immunization	Children age 12-23 months
- Received measles immunization	Children age 12-23 months
- Diarrhoea in the previous 2 weeks	Children under age 5
- Illness with a cough in the previous 2 weeks	Children under age 5
- Fever in last two weeks	Children under age 5
3.8 Oral rehydration therapy with continued feeding	Children under age 5 with diarrhoea in the previous 2 weeks
3.10 Antibiotic treatment of suspected pneumonia	Children under age 5 with suspected pneumonia in the previous 2 weeks
3.15 Children under age 5 sleeping under insecticide-treated nets (ITNs)	Children under age 5
3.18 Anti-malarial treatment of children under age 5	Children under age 5 reported to have had fever in the previous 2 weeks
6.1 Support for learning	Children age 36-59 months
6.7 Attendance to early childhood education	Children age 36-59 months

**Table SE.2: Sampling errors: Total sample**Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*) and confidence intervals for selected indicators, Somaliland, 2011

	MICS Indicator	Value ( <i>r</i> )	Standard error ( <i>se</i> )	Coefficient of variation ( <i>se/r</i> )	Design effect ( <i>deff</i> )	Square root of design effect ( <i>deft</i> )	Confidence limits			
							<i>r - 2se</i>	<i>r + 2se</i>		
<b>HOUSEHOLDS</b>										
Household availability of insecticide-treated nets (ITNs)	3.12	0.351	0.0118	0.033	2.921	1.709	4,820	4,820	0.327	0.374
<b>HOUSEHOLD MEMBERS</b>										
Use of improved drinking water sources	4.1	0.419	0.0156	0.037	4.811	2.193	3,0619	4,820	0.388	0.451
Use of improved sanitation	4.3	0.581	0.0123	0.021	2.976	1.725	3,0619	4,820	0.557	0.606
Secondary school net attendance ratio (adjusted)	7.5	0.205	0.0104	0.051	2.044	1.43	3,043	3,075	0.184	0.225
Child labour	8.2	0.26	0.0081	0.031	3.533	1.88	10,242	10,276	0.243	0.276
Prevalence of children with one or both parents dead	9.18	0.109	0.0047	0.043	3.884	1.971	17,165	17,230	0.100	0.119
School attendance of orphans	9.19	0.715	0.0302	0.042	0.291	0.54	65	66	0.654	0.775
School attendance of non-orphans	9.20	0.619	0.0155	0.025	3.682	1.919	3,586	3601	0.588	0.650
Violent discipline	8.5	0.783	0.0075	0.01	1.340	1.157	1,3297	4,046	0.767	0.798
<b>WOMEN</b>										
Pregnant women	-	0.090	0.004	0.044	1.131	1.064	5,865	5,865	0.082	0.098
Pregnant women sleeping under insecticide-treated nets (ITNs)	3.19	0.201	0.0184	0.092	1.098	1.048	523	519	0.164	0.237
Intermittent preventive treatment for malaria	3.20	0.014	0.0049	0.35	0.880	0.938	498	508	0.004	0.024
Early childbearing	5.2	0.136	0.0103	0.075	1.030	1.015	1,148	1,152	0.116	0.157
Contraceptive prevalence	5.3	0.099	0.0055	0.055	1.040	1.02	3,146	3,118	0.088	0.110
Unmet need	5.4	0.202	0.0078	0.039	1.187	1.09	3,146	3,118	0.186	0.218
Antenatal care coverage - at least once by skilled personnel	5.5a	0.318	0.0137	0.043	1.340	1.157	1,570	1,557	0.290	0.345
Antenatal care coverage – at least four times by any provider	5.5b	0.148	0.0106	0.072	1.392	1.18	1,570	1,557	0.126	0.169
Skilled attendant at delivery	5.7	0.441	0.0138	0.031	1.198	1.095	1,570	1,557	0.413	0.468
Institutional deliveries	5.8	0.306	0.0122	0.04	1.087	1.043	1,570	1,557	0.281	0.330
Caesarean section	5.9	0.041	0.0048	0.118	0.918	0.958	1,570	1,557	0.031	0.050
Literacy rate among young women	7.1	0.441	0.013	0.029	1.793	1.339	2,600	2,616	0.415	0.467
Marriage before age 18	8.7	0.308	0.0075	0.024	1.15	1.072	4,414	4,401	0.293	0.323
Polygyny	8.9	0.168	0.0076	0.045	1.273	1.128	3,146	3,118	0.153	0.183
Prevalence of female genital mutilation/cutting (FGM/C) among women	8.12	0.991	0.0017	0.002	1.904	1.380	5,865	5,865	0.987	0.994
Comprehensive knowledge about HIV prevention among young people	9.2	0.070	0.0059	0.084	1.395	1.181	2,600	2,616	0.058	0.081
Knowledge of mother- to-child transmission of HIV	9.3	0.532	0.0089	0.017	1.876	1.370	5,865	5,865	0.514	0.550
Women who have been tested for HIV and know the results	9.6	0.026	0.003	0.113	2.027	1.424	5,865	5,865	0.020	0.032
Accepting attitudes towards people living with HIV	9.4	0.083	0.0044	0.053	1.318	1.148	5,213	5,229	0.074	0.092
Prevalence of female genital mutilation/cutting (FGM/C) among girls	8.13	0.277	0.7448	0.027	1.570	1.253	5,729	5,674	0.262	1.000
<b>UNDER-5s</b>										
Exclusive breastfeeding under 6 months	2.6	0.128	0.0149	0.116	1.106	1.052	557	555	0.099	0.158
Age-appropriate breastfeeding	2.14	0.206	0.0118	0.057	1.447	1.203	1,704	1,707	0.183	0.230
Tuberculosis immunization coverage	-	0.360	0.0196	0.054	1.283	1.133	769	772	0.321	0.400
Received polio immunization	-	0.206	0.0142	0.069	0.939	0.969	760	763	0.178	0.235
Received DPT immunization	-	0.134	0.0123	0.091	0.984	0.992	758	761	0.110	0.159

	MICS Indicator	Value (r)	Standard error (se)	Coefficient of variation (se/r)	Design effect (deff)	Square root of design effect (deft)	Confidence limits			
							Weighted count	Unweighted count	r - 2se	r + 2se
Received measles immunization	-	0.378	0.0170	0.045	0.937	0.968	760	763	0.344	0.412
Diarrhoea in the previous 2 weeks	-	0.133	0.0066	0.05	1.782	1.335	4,672	4,672	0.120	0.147
Illness with a cough in the previous 2 weeks	-	0.057	0.0044	0.077	1.685	1.298	4,672	4,672	0.048	0.066
Fever in last two weeks	-	0.076	0.0053	0.070	1.871	1.368	4,672	4,672	0.065	0.086
Oral rehydration therapy with continued feeding	3.8	0.201	0.0143	0.071	0.792	0.890	623	626	0.172	0.229
Antibiotic treatment of suspected pneumonia	3.10	0.528	0.0231	0.044	0.568	0.753	267	267	0.481	0.574
Children under age 5 sleeping under insecticide-treated nets (ITNs)	3.15	0.219	0.0122	0.056	4.002	2.000	4,619	4,621	0.194	0.243
Anti-malarial treatment of children under age 5	3.18	0.034	0.0062	0.185	0.419	0.648	354	355	0.021	0.046
Support for learning	6.1	0.652	0.0136	0.021	1.611	1.269	1,981	1,977	0.625	0.680
Attendance to early childhood education	6.7	0.028	0.0039	0.141	1.109	1.053	1,981	1,977	0.020	0.035

**Table SE.3: Sampling errors: Urban areas**

Standard errors, coefficients of variation, design effects ( $deff$ ), square root of design effects ( $deft$ ) and confidence intervals for selected indicators, Somaliland, 2011										
	MICS Indicator	Value (r)	Standard error (se)	Coefficient of variation (se/r)	Design effect (deff)	Square root of design effect (deft)	Weighted count	Unweighted count	Confidence limits	
									r - 2se	r + 2se
<b>HOUSEHOLDS</b>										
Household availability of insecticide-treated nets (ITNs)	3.12	0.339	0.012	0.032	1.23	1.109	2,280	2,401	0.317	0.360
<b>HOUSEHOLD MEMBERS</b>										
Use of improved drinking water sources	4.1	0.640	0.021	0.033	4.583	2.141	16,146	2,401	0.598	0.682
Use of improved sanitation	4.3	0.865	0.012	0.014	2.841	1.685	16,146	2,401	0.842	0.889
Secondary school net attendance ratio (adjusted)	7.5	0.303	0.014	0.047	1.803	1.343	1,779	1,871	0.275	0.332
Child labour	8.2	0.140	0.008	0.053	2.504	1.582	5,145	5,423	0.125	0.155
Prevalence of children with one or both parents dead	9.18	0.124	0.007	0.057	4.18	2.044	8,714	9,181	0.110	0.138
School attendance of orphans	9.19	*	*	*	*	*	46	48	*	*
School attendance of non-orphans	9.20	0.722	0.014	0.019	1.898	1.378	1,840	1,938	0.694	0.750
Violent discipline	8.5	0.778	0.012	0.015	1.583	1.258	6,608	2,034	0.755	0.801
<b>WOMEN</b>										
Pregnant women	-	0.078	0.005	0.066	1.305	1.142	3,378	3,541	0.067	0.088
Pregnant women sleeping under insecticide-treated nets (ITNs)	3.19	0.170	0.017	0.11	0.665	0.816	259	272	0.133	0.207
Intermittent preventive treatment for malaria	3.20	0.013	0.006	0.452	1.051	1.025	361	379	0.001	0.026
Early childbearing	5.2	0.080	0.009	0.116	0.888	0.942	721	753	0.062	0.099
Contraceptive prevalence	5.3	0.110	0.008	0.071	1.001	1.000	1,521	1,598	0.094	0.126
Unmet need	5.4	0.219	0.013	0.057	1.482	1.217	1,521	1,598	0.194	0.244
Antenatal care coverage - at least once by skilled personnel	5.5a	0.476	0.021	0.043	1.347	1.161	758	797	0.435	0.517
Antenatal care coverage – at least four times by any provider	5.5b	0.244	0.016	0.065	1.094	1.046	758	797	0.212	0.276
Skilled attendant at delivery	5.7	0.709	0.019	0.027	1.445	1.202	758	797	0.671	0.748
Institutional deliveries	5.8	0.542	0.020	0.038	1.33	1.153	758	797	0.501	0.582
Caesarean section	5.9	0.074	0.009	0.121	0.935	0.967	758	797	0.056	0.092
Literacy rate among young women	7.1	0.538	0.014	0.027	1.433	1.197	1,649	1,728	0.509	0.567
Marriage before age 18	8.7	0.261	0.009	0.034	1.055	1.027	2,451	2,566	0.244	0.279
Polygyny	8.9	0.164	0.012	0.072	1.598	1.264	1,521	1,598	0.140	0.187
Prevalence of female genital mutilation/cutting (FGM/C) among women	8.12	0.987	0.003	0.003	2.175	1.475	3,378	3,541	0.982	0.993
Comprehensive knowledge about HIV prevention among young people	9.2	0.088	0.008	0.092	1.404	1.185	1,649	1,728	0.072	0.104
Knowledge of mother- to-child transmission of HIV	9.3	0.567	0.012	0.021	2.031	1.425	3,378	3,541	0.543	0.590
Women who have been tested for HIV and know the results	9.6	0.035	0.005	0.137	2.443	1.563	3,378	3,541	0.026	0.045
Accepting attitudes towards people living with HIV	9.4	0.105	0.006	0.06	1.423	1.193	3,154	3,305	0.093	0.118
Prevalence of female genital mutilation/cutting (FGM/C) among girls	8.13	0.305	1.0261	0.034	1.438	1.199	2,753	2,897	0.285	1.000
<b>UNDER-5s</b>										
Exclusive breastfeeding under 6 months	2.6	0.127	0.022	0.171	1.104	1.051	250	263	0.083	0.170
Age-appropriate breastfeeding	2.14	0.202	0.017	0.083	1.544	1.243	834	878	0.168	0.235
Tuberculosis immunization coverage	-	0.402	0.028	0.07	1.343	1.159	394	414	0.346	0.458
Received polio immunization	-	0.228	0.018	0.078	0.726	0.852	386	406	0.192	0.263
Received DPT immunization	-	0.158	0.019	0.12	1.091	1.045	386	406	0.120	0.196
Received measles immunization	-	0.420	0.020	0.048	0.682	0.826	387	407	0.380	0.461
Diarrhoea in the previous 2 weeks	-	0.144	0.010	0.067	1.798	1.341	2,256	2,373	0.125	0.163
Illness with a cough in the previous 2 weeks	-	0.059	0.007	0.117	2.045	1.43	2,256	2,373	0.045	0.073
Fever in last two weeks	-	0.079	0.008	0.1	2.009	1.417	2,256	2,373	0.063	0.094
Oral rehydration therapy with continued feeding	3.8	0.204	0.020	0.097	0.825	0.908	325	342	0.164	0.243
Antibiotic treatment of suspected pneumonia	3.10	0.704	0.035	0.05	0.813	0.901	133	140	0.634	0.774

**Table SE.3: Sampling errors: Urban areas**

	MICS Indicator	Value (r)	Standard error (se)	Coefficient of variation (se/r)	Design effect (deff)	Square root of design effect (deft)	Weighted count	Unweighted count	Confidence limits	
									r - 2se	r + 2se
Children under age 5 sleeping under insecticide-treated nets (ITNs)	3.15	0.182	0.014	0.074	2.858	1.691	2,236	2353	0.155	0.209
Anti-malarial treatment of children under age 5	3.18	0.055	0.010	0.18	0.349	0.591	177	187	0.035	0.074
Support for learning	6.1	0.661	0.019	0.028	1.537	1.240	947	994	0.623	0.698
Attendance to early childhood education	6.7	0.047	0.007	0.153	1.149	1.072	947	994	0.033	0.061

(\*) the number of unweighted observations is less than 50

**Table SE.4: Sampling errors: Rural areas**

Standard errors, coefficients of variation, design effects ( <i>deff</i> ), square root of design effects ( <i>deft</i> ) and confidence intervals for selected indicators, Somaliland, 2011									
	MICS Indicator	Value ( <i>r</i> )	Standard error ( <i>se</i> )	Coefficient of variation ( <i>se/r</i> )	Design effect ( <i>deff</i> )	Square root of design effect ( <i>deft</i> )	Weighted count	Unweighted count	Confidence limits
									<i>r - 2se</i>
<b>HOUSEHOLDS</b>									
Household availability of insecticide-treated nets (ITNs)	3.12	0.362	0.0201	0.056	4.237	2.058	2,540	2,419	0.322 0.402
<b>HOUSEHOLD MEMBERS</b>									
Use of improved drinking water sources	4.1	0.173	0.0224	0.129	8.435	2.904	14,473	2,419	0.128 0.218
Use of improved sanitation	4.3	0.264	0.0233	0.088	6.738	2.596	14,473	2,419	0.218 0.311
Secondary school net attendance ratio (adjusted)	7.5	0.066	0.0136	0.207	3.626	1.904	1,264	1,204	0.039 0.093
Child labour	8.2	0.380	0.0148	0.039	4.508	2.123	5,097	4,853	0.350 0.410
Prevalence of children with one or both parents dead	9.18	0.094	0.0062	0.066	3.659	1.913	8,450	8,049	0.082 0.107
School attendance of orphans	9.19	0.837	0.0631	0.075	0.497	0.705	19	18	0.711 0.963
School attendance of non-orphans	9.20	0.511	0.0283	0.055	5.317	2.306	1,746	1,663	0.455 0.568
Violent discipline	8.5	0.787	0.0096	0.012	1.095	1.047	6,690	2,012	0.768 0.806
<b>WOMEN</b>									
Pregnant women	-	0.108	0.0063	0.058	0.954	0.977	2,487	2,324	0.095 0.120
Pregnant women sleeping under insecticide-treated nets (ITNs)	3.19	0.231	0.0316	0.137	1.387	1.178	264	247	0.168 0.294
Intermittent preventive treatment for malaria	3.20	0.015	0.0078	0.505	0.511	0.715	138	129	0.000 0.031
Early childbearing	5.2	0.231	0.0205	0.089	0.946	0.972	427	399	0.189 0.272
Contraceptive prevalence	5.3	0.089	0.0076	0.085	1.088	1.043	1,626	1,520	0.074 0.105
Unmet need	5.4	0.186	0.0095	0.051	0.914	0.956	1,626	1,520	0.167 0.205
Antenatal care coverage - at least once by skilled personnel	5.5a	0.170	0.0179	0.105	1.721	1.312	812	760	0.134 0.205
Antenatal care coverage – at least four times by any provider	5.5b	0.058	0.0128	0.222	2.294	1.514	812	760	0.032 0.083
Skilled attendant at delivery	5.7	0.190	0.0181	0.095	1.608	1.268	812	760	0.154 0.226
Institutional deliveries	5.8	0.086	0.0111	0.130	1.205	1.097	812	760	0.063 0.108
Caesarean section	5.9	0.009	0.0034	0.372	0.978	0.989	812	760	0.002 0.016
Literacy rate among young women	7.1	0.273	0.0231	0.085	2.394	1.547	950	888	0.227 0.319
Marriage before age 18	8.7	0.365	0.0124	0.034	1.213	1.101	1,963	1,835	0.341 0.390
Polygyny	8.9	0.171	0.0097	0.056	0.995	0.998	1,626	1,520	0.152 0.191
Prevalence of female genital mutilation/cutting (FGM/C) among women	8.12	0.996	0.0014	0.001	1.027	1.013	2,487	2,324	0.993 0.998
Comprehensive knowledge about HIV prevention among young people	9.2	0.038	0.008	0.209	1.547	1.244	950	888	0.022 0.054
Knowledge of mother- to-child transmission of HIV	9.3	0.485	0.0136	0.028	1.730	1.315	2,487	2,324	0.457 0.512
Women who have been tested for HIV and know the results	9.6	0.014	0.0023	0.159	0.841	0.917	2,487	2,324	0.010 0.019
Accepting attitudes towards people living with HIV	9.4	0.049	0.0052	0.106	1.118	1.057	2,059	1,924	0.039 0.060
Prevalence of female genital mutilation/cutting (FGM/C) among girls	8.13	0.251	1.0805	0.043	1.723	1.313	2,977	2,777	0.230 1.000
<b>UNDER-5s</b>									
Exclusive breastfeeding under 6 months	2.6	0.13	0.0207	0.159	1.1	1.049	307	292	0.088 0.171
Age-appropriate breastfeeding	2.14	0.211	0.0165	0.078	1.353	1.163	870	829	0.178 0.244
Tuberculosis immunization coverage	-	0.317	0.0271	0.086	1.215	1.102	375	358	0.262 0.371
Received polio immunization	-	0.184	0.0222	0.121	1.172	1.083	374	357	0.140 0.229
Received DPT immunization	-	0.11	0.0152	0.139	0.842	0.918	372	355	0.079 0.140
Received measles immunization	-	0.334	0.0272	0.081	1.176	1.085	373	356	0.280 0.388
Diarrhoea in the previous 2 weeks	-	0.123	0.0091	0.074	1.754	1.324	2,416	2,299	0.105 0.141
Illness with a cough in the previous 2 weeks	-	0.055	0.0056	0.1	1.359	1.166	2,416	2,299	0.044 0.066
Fever in last two weeks	-	0.073	0.0072	0.098	1.744	1.321	2,416	2,299	0.059 0.088

**Table SE.4: Sampling errors: Rural areas**

Standard errors, coefficients of variation, design effects ( $deff$ ), square root of design effects ( $deft$ ) and confidence intervals for selected indicators, Somaliland, 2011

MICS Indicator	Value ( $r$ )	Standard error ( $se$ )	Coefficien t of variation ( $se/r$ )	Design effect ( $deff$ )	Square root of design effect ( $deft$ )	Weighte d count	Un weighte d count	Confidence limits		
								$r - 2se$	$r + 2se$	
Oral rehydration therapy with continued feeding	3.8	0.198	0.0206	0.104	0.755	0.869	298	284	0.157	0.239
Antibiotic treatment of suspected pneumonia	3.10	0.352	0.029	0.082	0.464	0.681	134	127	0.294	0.410
Children under age 5 sleeping under insecticide-treated nets (ITNs)	3.15	0.254	0.0195	0.077	4.549	2.133	2,383	2,268	0.215	0.292
Anti-malarial treatment of children under age 5	3.18	0.013	0.0065	0.522	0.577	0.76	177	168	0.000	0.026
Support for learning	6.1	0.645	0.0197	0.031	1.667	1.291	1,033	983	0.605	0.684
Attendance to early childhood education	6.7	0.010	0.0031	0.314	0.974	0.987	1,033	983	0.004	0.016

**Table SE.5: Sampling errors: Maroodijeex/Saaxil**

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*) and confidence intervals for selected indicators, Somaliland, 2011

	MICS Indicator	Value (r)	Standard error (se)	Coefficient of variation (se/r)	Design effect (deff)	Square root of design effect (deft)	Weighted count	Unweighted count	Confidence limits	
									r - 2se	r + 2se
<b>HOUSEHOLDS</b>										
Household availability of insecticide-treated nets (ITNs)	3.12	0.283	0.0168	0.059	3.076	1.754	2,176	2,205	0.250	0.317
<b>HOUSEHOLD MEMBERS</b>										
Use of improved drinking water sources	4.1	0.518	0.0236	0.046	4.934	2.221	14,588	2,205	0.470	0.565
Use of improved sanitation	4.3	0.692	0.0122	0.018	1.545	1.243	14,588	2,205	0.668	0.717
Secondary school net attendance ratio (adjusted)	7.5	0.265	0.0152	0.057	1.81	1.345	1,499	1,530	0.234	0.295
Child labour	8.2	0.196	0.0103	0.053	3.195	1.787	4,671	4,739	0.176	0.217
Prevalence of children with one or both parents dead	9.18	0.121	0.0073	0.06	4	2	7,886	8,006	0.106	0.135
School attendance of orphans	9.19	*	*	*	*	*	31	32	*	*
School attendance of non-orphans	9.20	0.683	0.016	0.023	1.931	1.389	1,651	1,677	0.652	0.715
Violent discipline	8.5	0.778	0.012	0.015	1.536	1.239	6,028	1,830	0.754	0.802
<b>WOMEN</b>										
Pregnant women	-	0.087	0.006	0.068	1.295	1.138	2,925	2,951	0.075	0.099
Pregnant women sleeping under insecticide-treated nets (ITNs)	3.19	0.104	0.019	0.183	0.972	0.986	250	251	0.066	0.142
Intermittent preventive treatment for malaria	3.20	0.021	0.008	0.377	0.884	0.94	282	287	0.005	0.037
Early childbearing	5.2	0.094	0.0122	0.131	1.076	1.037	603	612	0.069	0.118
Contraceptive prevalence	5.3	0.100	0.008	0.08	1.015	1.008	1,439	1,440	0.084	0.116
Unmet need	5.4	0.223	0.0116	0.052	1.113	1.055	1,439	1,440	0.200	0.246
Antenatal care coverage - at least once by skilled personnel	5.5a	0.395	0.0188	0.048	1.059	1.029	715	716	0.357	0.432
Antenatal care coverage – at least four times by any provider	5.5b	0.189	0.0174	0.092	1.415	1.189	715	716	0.154	0.224
Skilled attendant at delivery	5.7	0.57	0.0205	0.036	1.223	1.106	715	716	0.529	0.611
Institutional deliveries	5.8	0.471	0.0199	0.042	1.135	1.065	715	716	0.432	0.511
Caesarean section	5.9	0.067	0.0088	0.132	0.885	0.941	715	716	0.049	0.084
Literacy rate among young women	7.1	0.478	0.0176	0.037	1.655	1.287	1322	1,341	0.443	0.513
Marriage before age 18	8.7	0.274	0.0101	0.037	1.141	1.068	2206	2,222	0.254	0.294
Polygyny	8.9	0.158	0.0115	0.073	1.436	1.198	1439	1,440	0.135	0.181
Prevalence of female genital mutilation/cutting (FGM/C) among women	8.12	0.987	0.0029	0.003	1.965	1.402	2925	2,951	0.982	0.993
Comprehensive knowledge about HIV prevention among young people	9.2	0.086	0.0086	0.1	1.255	1.12	1,322	1,341	0.069	0.103
Knowledge of mother- to-child transmission of HIV	9.3	0.545	0.0132	0.024	2.066	1.438	2,925	2,951	0.518	0.571
Women who have been tested for HIV and know the results	9.6	0.035	0.0052	0.148	2.326	1.525	2,925	2,951	0.025	0.045
Accepting attitudes towards people living with HIV	9.4	0.097	0.0069	0.071	1.479	1.216	2,667	2,697	0.083	0.111
Prevalence of female genital mutilation/cutting (FGM/C) among girls	8.13	0.285	1.1907	0.042	1.755	1.325	2,527	2,525	0.261	1.000
<b>UNDER-5s</b>										
Exclusive breastfeeding under 6 months	2.6	0.179	0.0257	0.144	1.079	1.039	239	241	0.127	0.230
Age-appropriate breastfeeding	2.14	0.229	0.0173	0.075	1.31	1.145	766	776	0.194	0.263
Tuberculosis immunization coverage	-	0.357	0.0284	0.08	1.272	1.128	358	363	0.300	0.414
Received polio immunization	-	0.196	0.0205	0.104	0.942	0.971	350	355	0.155	0.237
Received DPT immunization	-	0.126	0.0188	0.149	1.138	1.067	351	356	0.088	0.163
Received measles immunization	-	0.370	0.024	0.065	0.879	0.938	351	356	0.322	0.418
Diarrhoea in the previous 2 weeks	-	0.138	0.0115	0.083	2.317	1.522	2,074	2,099	0.115	0.161
Illness with a cough in the previous 2 weeks	-	0.061	0.0068	0.111	1.676	1.295	2,074	2,099	0.047	0.075

**Table SE.5: Sampling errors: Maroodijeex/Saaxil**

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*) and confidence intervals for selected indicators, Somaliland, 2011

	MICS Indicator	Value ( <i>r</i> )	Standar d error ( <i>se</i> )	Coefficien t of variation ( <i>se/r</i> )	Design effect ( <i>deff</i> )	Square root of design effect ( <i>deft</i> )	Weighte d count	Un weighte d count	Confidence limits	
									<i>r - 2se</i>	<i>r + 2se</i>
Fever in last two weeks	-	0.080	0.0086	0.108	2.128	1.459	2,074	2,099	0.062	0.097
Oral rehydration therapy with continued feeding	3.8	0.183	0.0182	0.099	0.64	0.800	285	290	0.147	0.220
Antibiotic treatment of suspected pneumonia	3.10	0.59	0.039	0.066	0.799	0.894	126	128	0.512	0.668
Children under age 5 sleeping under insecticide-treated nets (ITNs)	3.15	0.141	0.0159	0.113	4.349	2.085	2,056	2,080	0.109	0.173
Anti-malarial treatment of children under age 5	3.18	0.041	0.0097	0.237	0.403	0.635	165	168	0.022	0.060
Support for learning	6.1	0.606	0.0217	0.036	1.814	1.347	910	919	0.563	0.650
Attendance to early childhood education	6.7	0.045	0.007	0.156	1.056	1.028	910	919	0.031	0.059

(\*) the number of unweighted observations is less than 50

**Table SE.6: Sampling errors: Awdal**

Standard errors, coefficients of variation, design effects ( <i>deff</i> ), square root of design effects ( <i>deft</i> ) and confidence intervals for selected indicators, Somaliland, 2011										
	MICS Indicator	Value (r)	Standard error (se)	Coefficient of variation (se/r)	Design effect (deff)	Square root of design effect (deft)	Un weighted count		Confidence limits	
							Weighted count	Un weighted count	r - 2se	r + 2se
<b>HOUSEHOLDS</b>										
Household availability of insecticide-treated nets (ITNs)	3.12	0.407	0.0277	0.068	2.299	1.516	725	724	0.352	0.463
<b>HOUSEHOLD MEMBERS</b>										
Use of improved drinking water sources	4.1	0.571	0.0315	0.055	2.935	1.713	4,612	724	0.508	0.634
Use of improved sanitation	4.3	0.495	0.031	0.063	2.777	1.666	4,612	724	0.433	0.557
Secondary school net attendance ratio (adjusted)	7.5	0.238	0.0278	0.117	1.785	1.336	415	419	0.182	0.294
Child labour	8.2	0.284	0.0224	0.079	3.739	1.934	1,514	1,517	0.240	0.329
Prevalence of children with one or both parents dead	9.18	0.097	0.012	0.124	4.195	2.048	2,548	2,552	0.073	0.121
School attendance of orphans	9.19	0.644	0.1271	0.197	0.704	0.839	11	11	0.389	0.898
School attendance of non-orphans	9.20	0.698	0.0432	0.062	4.576	2.139	516	517	0.611	0.784
Violent discipline	8.5	0.811	0.0186	0.023	1.372	1.171	1,986	606	0.774	0.848
<b>WOMEN</b>										
Pregnant women	-	0.085	0.0105	0.123	1.17	1.082	841	835	0.064	0.106
Pregnant women sleeping under insecticide-treated nets (ITNs)	3.19	0.269	0.072	0.267	1.817	1.348	72	70	0.125	0.413
Intermittent preventive treatment for malaria	3.20	0	0.000	0.000	N/A	N/A	80	80	0.000	0.000
Early childbearing	5.2	0.151	0.0263	0.175	0.817	0.904	153	152	0.098	0.203
Contraceptive prevalence	5.3	0.119	0.0153	0.128	1.076	1.037	492	483	0.089	0.150
Unmet need	5.4	0.169	0.0161	0.096	0.895	0.946	492	483	0.136	0.201
Antenatal care coverage - at least once by skilled personnel	5.5a	0.329	0.045	0.137	2.181	1.477	244	239	0.239	0.419
Antenatal care coverage – at least four times by any provider	5.5b	0.18	0.0323	0.18	1.687	1.299	244	239	0.115	0.244
Skilled attendant at delivery	5.7	0.445	0.0395	0.089	1.505	1.227	244	239	0.366	0.524
Institutional deliveries	5.8	0.269	0.0361	0.134	1.579	1.256	244	239	0.196	0.341
Caesarean section	5.9	0.033	0.0107	0.331	0.873	0.934	244	239	0.011	0.054
Literacy rate among young women	7.1	0.507	0.0306	0.06	1.352	1.163	363	363	0.446	0.568
Marriage before age 18	8.7	0.302	0.0175	0.058	0.903	0.950	631	624	0.267	0.337
Polygyny	8.9	0.108	0.0152	0.141	1.159	1.076	492	483	0.077	0.138
Prevalence of female genital mutilation/cutting (FGM/C) among women	8.12	0.994	0.0028	0.003	1.049	1.024	841	835	0.988	0.999
Comprehensive knowledge about HIV prevention among young people	9.2	0.069	0.0175	0.253	1.725	1.313	363	363	0.034	0.104
Knowledge of mother- to-child transmission of HIV	9.3	0.508	0.0207	0.041	1.426	1.194	841	835	0.466	0.549
Accepting attitudes towards people living with HIV	9.4	0.069	0.0095	0.137	1.008	1.004	730	726	0.050	0.088
Women who have been tested for HIV and know the results	9.6	0.032	0.0064	0.2	1.101	1.049	841	835	0.019	0.045
Prevalence of female genital mutilation/cutting (FGM/C) among girls	8.13	0.286	2.0533	0.072	1.727	1.314	854	838	0.245	1.000
<b>UNDER-5s</b>										
Exclusive breastfeeding under 6 months	2.6	0.100	0.0337	0.338	1.126	1.061	90	90	0.032	0.167
Age-appropriate breastfeeding	2.14	0.227	0.0305	0.134	1.385	1.177	264	263	0.166	0.288
Tuberculosis immunization coverage	-	0.37	0.0413	0.112	0.865	0.930	119	119	0.288	0.453
Received polio immunization	-	0.248	0.0396	0.16	0.986	0.993	118	118	0.168	0.327
Received DPT immunization	-	0.131	0.0292	0.224	0.864	0.930	116	116	0.072	0.189
Received measles immunization	-	0.361	0.0402	0.112	0.814	0.902	117	117	0.280	0.441
Diarrhoea in the previous 2 weeks	-	0.138	0.0161	0.117	1.574	1.255	727	725	0.106	0.170
Illness with a cough in the previous 2 weeks	-	0.027	0.0091	0.335	2.277	1.509	727	725	0.009	0.045
Fever in last two weeks	-	0.043	0.0104	0.241	1.897	1.377	727	725	0.022	0.064
Oral rehydration therapy with continued feeding	3.8	0.178	0.0372	0.209	0.937	0.968	100	100	0.103	0.252
Antibiotic treatment of suspected pneumonia	3.10	*	*	*	*	*	20	20	*	*
Children under age 5 sleeping under insecticide-treated nets (ITNs)	3.15	0.257	0.0316	0.123	3.764	1.940	724	722	0.194	0.320

**Table SE.6: Sampling errors: Awdal**Standard errors, coefficients of variation, design effects ( $deff$ ), square root of design effects ( $deft$ ) and confidence intervals for selected indicators, Somaliland, 2011

	MICS Indicator	Value ( <i>r</i> )	Standard error ( <i>se</i> )	Coefficien t of variation ( <i>se/r</i> )	Design effect ( <i>deff</i> )	Square root of design effect ( <i>deft</i> )	Un weighted count			Confidence limits	
							Weighted count	Un weighted count	<i>r - 2se</i>	<i>r + 2se</i>	
Anti-malarial treatment of children under age 5		3.18	*	*	*	*	31	31	*	*	
Support for learning		6.1	0.593	0.0364	0.061	1.56	1.249	287	286	0.520	0.666
Attendance to early childhood education		6.7	0.031	0.0115	0.37	1.252	1.119	287	286	0.008	0.054

(\*) the number of unweighted observations is less than 50

**Table SE.7: Sampling errors: Togdheer**Standard errors, coefficients of variation, design effects ( $deff$ ), square root of design effects ( $deft$ ) and confidence intervals for selected indicators, Somaliland, 2011

MICS Indicator	Value ( <i>r</i> )	Standard error (se)	Coefficient of variation ( <i>se/r</i> )	Design effect ( <i>deff</i> )	Square root of design effect ( <i>deft</i> )	Weighted count	Unweighted count	Confidence limits								
								<i>r - 2se</i>	<i>r + 2se</i>							
<b>HOUSEHOLDS</b>																
Household availability of insecticide-treated nets (ITNs)																
	3.12	0.287	0.0194	0.068	0.543	0.737	295	296	0.248	0.326						
<b>HOUSEHOLD MEMBERS</b>																
Use of improved drinking water sources	4.1	0.154	0.0526	0.34	6.244	2.499	1708	296	0.049	0.260						
Use of improved sanitation	4.3	0.607	0.0641	0.106	5.083	2.254	1708	296	0.479	0.735						
Secondary school net attendance ratio (adjusted)	7.5	0.155	0.0583	0.376	4.125	2.031	156	160	0.039	0.272						
Child labour	8.2	0.322	0.0339	0.105	3.288	1.813	618	626	0.254	0.390						
Prevalence of children with one or both parents dead	9.18	0.085	0.0172	0.203	3.862	1.965	995	1010	0.050	0.119						
School attendance of orphans	9.19	1.000	*	*	*	*	2	2	*	*						
School attendance of non-orphans	9.20	0.483	0.0477	0.099	1.917	1.384	207	211	0.387	0.578						
Violent discipline	8.5	0.770	0.0226	0.029	0.745	0.863	787	259	0.725	0.815						
<b>WOMEN</b>																
Pregnant women	-	0.130	0.0122	0.094	0.422	0.649	314	319	0.105	0.154						
Pregnant women sleeping under insecticide-treated nets (ITNs)	3.19	*	*	*	*	*	41	41	*	*						
Intermittent preventive treatment for malaria	3.20	*	*	*	*	*	24	27	*	*						
Early childbearing	5.2	0.132	0.0399	0.302	0.804	0.897	58	59	0.052	0.212						
Contraceptive prevalence	5.3	0.081	0.0251	0.31	1.555	1.247	181	185	0.031	0.131						
Unmet need	5.4	0.215	0.0391	0.182	1.667	1.291	181	185	0.137	0.293						
Antenatal care coverage - at least once by skilled personnel	5.5a	0.268	0.0441	0.165	0.913	0.955	90	93	0.180	0.356						
Antenatal care coverage – at least four times by any provider	5.5b	0.103	0.0392	0.382	1.536	1.239	90	93	0.024	0.181						
Skilled attendant at delivery	5.7	0.347	0.0459	0.132	0.857	0.926	90	93	0.255	0.439						
Institutional deliveries	5.8	0.19	0.0301	0.159	0.543	0.737	90	93	0.129	0.250						
Caesarean section	5.9	0.021	0.012	0.568	0.641	0.801	90	93	0.000	0.045						
Literacy rate among young women	7.1	0.377	0.0722	0.191	3.041	1.744	133	138	0.233	0.522						
Marriage before age 18	8.7	0.366	0.0254	0.069	0.663	0.814	239	240	0.316	0.417						
Polygyny	8.9	0.175	0.0253	0.145	0.818	0.904	181	185	0.124	0.225						
Prevalence of female genital mutilation/cutting (FGM/C) among women	8.12	0.993	0.0005	0.001	0.012	0.108	314	319	0.992	0.994						
Comprehensive knowledge about HIV prevention among young people	9.2	0.077	0.0319	0.412	1.951	1.397	133	138	0.014	0.141						
Knowledge of mother- to-child transmission of HIV	9.3	0.535	0.0369	0.069	1.737	1.318	314	319	0.461	0.608						
Accepting attitudes towards people living with HIV	9.4	0.062	0.0125	0.204	0.741	0.861	268	273	0.036	0.087						
Women who have been tested for HIV and know the results	9.6	0.003	0.0002	0.072	0.004	0.065	314	319	0.002	0.003						
Prevalence of female genital mutilation/cutting (FGM/C) among girls	8.13	0.246	1.481	0.060	1.386	1.177	1,202	1,174	0.216	1.000						
<b>UNDER-5s</b>																
Exclusive breastfeeding	2.6	0.111	0.0417	0.376	0.617	0.786	35	36	0.028	0.195						

**Table SE.7: Sampling errors: Togdheer**Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*) and confidence intervals for selected indicators, Somaliland, 2011

	MICS Indicator	Value ( <i>r</i> )	Standard error ( <i>se</i> )	Coefficient of variation ( <i>se/r</i> )	Design effect ( <i>deff</i> )	Square root of design effect ( <i>deft</i> )	Weighted count	Unweighted count	Confidence limits	
									<i>r - 2se</i>	<i>r + 2se</i>
<b>under 6 months</b>										
Age-appropriate breastfeeding	2.14	0.092	0.0241	0.263	0.705	0.840	99	102	0.043	0.140
Tuberculosis immunization coverage	-	0.260	0.054	0.208	0.591	0.769	39	40	0.152	0.367
Received polio immunization	-	0.148	0.0505	0.342	0.791	0.889	39	40	0.047	0.249
Received DPT immunization	-	0.161	0.0603	0.374	1.049	1.024	39	40	0.040	0.282
Received measles immunization	-	0.288	0.0646	0.224	0.794	0.891	39	40	0.159	0.417
Diarrhoea in the previous 2 weeks	-	0.127	0.0198	0.156	0.938	0.969	262	266	0.087	0.167
Illness with a cough in the previous 2 weeks	-	0.042	0.0189	0.448	2.336	1.528	262	266	0.004	0.080
Fever in last two weeks	-	0.098	0.0276	0.28	2.271	1.507	262	266	0.043	0.153
Oral rehydration therapy with continued feeding	3.8	*	*	*	*	*	33	34	*	*
Antibiotic treatment of suspected pneumonia	3.10	*	*	*	*	*	11	11	*	*
Children under age 5 sleeping under insecticide- treated nets (ITNs)	3.15	0.199	0.0127	0.064	0.267	0.516	262	266	0.173	0.224
Anti-malarial treatment of children under age 5	3.18	0.043	0.0041	0.095	0.011	0.105	26	28	0.035	0.051
Support for learning	6.1	0.758	0.0422	0.056	0.876	0.936	90	91	0.674	0.843
Attendance to early childhood education	6.7	0.009	0.0086	0.948	0.737	0.858	90	91	0.000	0.026

(\*) the number of unweighted oberservations is less than 50

**Table SE.8: Sampling errors: Sool**

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*) and confidence intervals for selected indicators, Somaliland, 2011

	MICS Indicator	Value ( <i>n</i> )	Standard error (se)	Coefficient of variation ( <i>se/r</i> )	Design effect ( <i>deff</i> )	Square root of design effect ( <i>deft</i> )	Confidence limits			
							Weighted count	Unweighted count	<i>r</i> - 2 <i>se</i>	
<b>HOUSEHOLDS</b>										
Household availability of insecticide-treated nets (ITNs)	3.12	0.287	0.0194	0.068	0.543	0.737	295	296	0.248	0.326
<b>HOUSEHOLD MEMBERS</b>										
Use of improved drinking water sources	4.1	0.154	0.0526	0.34	6.244	2.499	1,708	296	0.049	0.260
Use of improved sanitation	4.3	0.607	0.0641	0.106	5.083	2.254	1,708	296	0.479	0.735
Secondary school net attendance ratio (adjusted)	7.5	0.155	0.0583	0.376	4.125	2.031	156	160	0.039	0.272
Child labour	8.2	0.322	0.0339	0.105	3.288	1.813	618	626	0.254	0.390
Prevalence of children with one or both parents dead	9.18	0.085	0.0172	0.203	3.862	1.965	995	1,010	0.050	0.119
School attendance of orphans	9.19	1.000	*	*	*	*	2	2	*	*
School attendance of non-orphans	9.20	0.483	0.0477	0.099	1.917	1.384	207	211	0.387	0.578
Violent discipline	8.5	0.770	0.0226	0.029	0.745	0.863	787	259	0.725	0.815
<b>WOMEN</b>										
Pregnant women	-	0.130	0.0122	0.094	0.422	0.649	314	319	0.105	0.154
Pregnant women sleeping under insecticide-treated nets (ITNs)	3.19	*	*	*	*	*	41	41	*	*
Intermittent preventive treatment for malaria	3.20	0.000	*	*	*	*	24	27	*	*
Early childbearing	5.2	0.132	0.0399	0.302	0.804	0.897	58	59	0.052	0.212
Contraceptive prevalence	5.3	0.081	0.0251	0.31	1.555	1.247	181	185	0.031	0.131
Unmet need	5.4	0.215	0.0391	0.182	1.667	1.291	181	185	0.137	0.293
Antenatal care coverage - at least once by skilled personnel	5.5a	0.268	0.0441	0.165	0.913	0.955	90	93	0.180	0.356
Antenatal care coverage – at least four times by any provider	5.5b	0.103	0.0392	0.382	1.536	1.239	90	93	0.024	0.181
Skilled attendant at delivery	5.7	0.347	0.0459	0.132	0.857	0.926	90	93	0.255	0.439
Institutional deliveries	5.8	0.190	0.0301	0.159	0.543	0.737	90	93	0.129	0.250
Caesarean section	5.9	0.021	0.012	0.568	0.641	0.801	90	93	0.000	0.045
Literacy rate among young women	7.1	0.377	0.0722	0.191	3.041	1.744	133	138	0.233	0.522
Marriage before age 18	8.7	0.366	0.0254	0.069	0.663	0.814	239	240	0.316	0.417
Polygyny	8.9	0.175	0.0253	0.145	0.818	0.904	181	185	0.124	0.225
Prevalence of female genital mutilation/cutting (FGM/C) among women	8.12	0.993	0.0005	0.001	0.012	0.108	314	319	0.992	0.994
Comprehensive knowledge about HIV prevention among young people	9.2	0.077	0.0319	0.412	1.951	1.397	133	138	0.014	0.141
Knowledge of mother- to-child transmission of HIV	9.3	0.535	0.0369	0.069	1.737	1.318	314	319	0.461	0.608
Women who have been tested for HIV and know the results	9.6	0.003	0.0002	0.072	0.004	0.065	314	319	0.002	0.003
Accepting attitudes towards people living with HIV	9.4	0.062	0.0125	0.204	0.741	0.861	268	273	0.036	0.087
Prevalence of female genital mutilation/cutting (FGM/C) among girls	8.13	0.264	2.2210	0.084	0.873	0.934	336	345	0.213	1.000
<b>UNDER-5s</b>										
Exclusive breastfeeding under 6 months	2.6	*	*	*	*	*	35	36	*	*
Age-appropriate breastfeeding	2.14	0.092	0.0241	0.263	0.705	0.840	99	102	0.043	0.140
Tuberculosis immunization coverage	-	*	*	*	*	*	39	40	*	*
Received polio immunization	-	*	*	*	*	*	39	40	*	*
Received DPT immunization	-	*	*	*	*	*	39	40	*	*
Received measles immunization	-	*	*	*	*	*	39	40	*	*
Diarrhoea in the previous 2 weeks	-	0.127	0.0198	0.156	0.938	0.969	262	266	0.087	0.167
Illness with a cough in the previous 2 weeks	-	0.042	0.0189	0.448	2.336	1.528	262	266	0.004	0.080
Fever in last two weeks	-	0.098	0.0276	0.28	2.271	1.507	262	266	0.043	0.153
Oral rehydration therapy with continued feeding	3.8	*	*	*	*	*	33	34	*	*

**Table SE.8: Sampling errors: Sool**

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*) and confidence intervals for selected indicators, Somaliland, 2011

MICS Indicator	Value ( <i>r</i> )	Standard error (se)	Coefficient of variation ( <i>se/r</i> )	Design effect ( <i>deff</i> )	Square root of design effect ( <i>deft</i> )	Confidence limits			
						Weighted count	Unweighted count	<i>r - 2se</i>	<i>r + 2se</i>
Antibiotic treatment of suspected pneumonia	3.10	*	*	*	*	11	11	*	*
Children under age 5 sleeping under insecticide-treated nets (ITNs)	3.15	0.199	0.0127	0.064	0.267	0.516	262	266	0.173
Anti-malarial treatment of children under age 5	3.18	*	*	*	*	*	26	28	*
Support for learning	6.1	0.758	0.0422	0.056	0.876	0.936	90	91	0.674
Attendance to early childhood education	6.7	0.009	0.0086	0.948	0.737	0.858	90	91	0.000

(\*) the number of unweighted observations is less than 50

**Table SE.9: Sampling errors: Sanaag**

Standard errors, coefficients of variation, design effects ( $deff$ ), square root of design effects ( $deft$ ) and confidence intervals for selected indicators, Somaliland, 2011

	MICS Indicator	Value (r)	Standard error (se)	Coefficient of variation (se/r)	Design effect (deff)	Square root of design effect (deft)	Confidence limits		
							Weighted count	Unweighted count	r - 2se
<b>HOUSEHOLDS</b>									
Household availability of insecticide-treated nets (ITNs)	3.12	0.341	0.0367	0.108	3.872	1.968	670	647	0.268
<b>HOUSEHOLD MEMBERS</b>									
Use of improved drinking water sources	4.1	0.240	0.0441	0.184	6.909	2.629	3,959	647	0.151
Use of improved sanitation	4.3	0.360	0.0498	0.138	6.953	2.637	3,959	647	0.261
Secondary school net attendance ratio (adjusted)	7.5	0.113	0.0263	0.234	2.534	1.592	372	366	0.060
Child labour	8.2	0.359	0.0248	0.069	3.723	1.930	1,436	1,398	0.309
Prevalence of children with one or both parents dead	9.18	0.094	0.0093	0.1	2.354	1.534	2,361	2299	0.075
School attendance of orphans	9.19	1.000	*	*	*	*	8	8	*
School attendance of non-orphans	9.20	0.546	0.0531	0.097	5.42	2.328	491	477	0.440
Violent discipline	8.5	0.768	0.0197	0.026	1.202	1.096	1,883	555	0.728
<b>WOMEN</b>									
Pregnant women	-	0.091	0.0078	0.086	0.52	0.721	707	702	0.075
Pregnant women sleeping under insecticide-treated nets (ITNs)	3.19	0.227	0.0402	0.177	0.542	0.736	61	60	0.147
Intermittent preventive treatment for malaria	3.20	0.000	*	*	*	*	38	40	*
Early childbearing	5.2	0.236	0.0512	0.217	1.647	1.283	117	114	0.133
Contraceptive prevalence	5.3	0.083	0.011	0.133	0.671	0.819	432	422	0.061
Unmet need	5.4	0.157	0.0154	0.098	0.75	0.866	432	422	0.127
Antenatal care coverage - at least once by skilled personnel	5.5a	0.188	0.0406	0.215	2.097	1.448	200	196	0.107
Antenatal care coverage – at least four times by any provider	5.5b	0.056	0.0193	0.347	1.383	1.176	200	196	0.017
Skilled attendant at delivery	5.7	0.254	0.0346	0.136	1.229	1.109	200	196	0.185
Institutional deliveries	5.8	0.087	0.0232	0.267	1.321	1.149	200	196	0.041
Caesarean section	5.9	0.006	0.0054	0.991	1.05	1.025	200	196	0.000
Literacy rate among young women	7.1	0.365	0.0468	0.128	2.772	1.665	295	295	0.272
Marriage before age 18	8.7	0.366	0.0192	0.053	0.828	0.910	529	521	0.328
Polygyny	8.9	0.227	0.0183	0.08	0.801	0.895	432	422	0.191
Prevalence of female genital mutilation/cutting (FGM/C) among women	8.12	0.997	0.0031	0.003	2.209	1.486	707	702	0.991
Comprehensive knowledge about HIV prevention among young people	9.2	0.027	0.0106	0.397	1.274	1.129	295	295	0.005
Knowledge of mother- to-child transmission of HIV	9.3	0.509	0.0257	0.05	1.852	1.361	707	702	0.458
Women who have been tested for HIV and know the results	9.6	0.011	0.0045	0.402	1.276	1.130	707	702	0.002
Accepting attitudes towards people living with HIV	9.4	0.066	0.0093	0.141	0.856	0.925	611	611	0.047
									0.084

**Table SE.9: Sampling errors: Sanaag**

Standard errors, coefficients of variation, design effects ( $deff$ ), square root of design effects ( $deft$ ) and confidence intervals for selected indicators, Somaliland, 2011

MICS Indicator	Value (r)	Standard error (se)	Coefficient of variation (se/r)	Design effect (deff)	Square root of design effect (deft)	Confidence limits			
						Weighted count	Unweighted count	r - 2se	r + 2se
Prevalence of female genital mutilation/cutting (FGM/C) among girls	8.13	24.150	1.6053	0.066	1.366	1.169	987	972	20.934 1.000
<b>UNDER-5s</b>									
Exclusive breastfeeding under 6 months	2.6	0.100	0.0475	0.473	1.797	1.341	77	73	0.005 0.195
Age-appropriate breastfeeding	2.14	0.273	0.0379	0.139	1.561	1.249	224	217	0.197 0.348
Tuberculosis immunization coverage	-	0.304	0.0413	0.136	0.717	0.847	92	90	0.222 0.387
Received polio immunization	-	0.144	0.0345	0.24	0.861	0.928	92	90	0.075 0.213
Received DPT immunization	-	0.134	0.0265	0.197	0.537	0.733	92	90	0.081 0.187
Received measles immunization	-	0.415	0.0338	0.081	0.418	0.647	92	90	0.347 0.483
Diarrhoea in the previous 2 weeks	-	0.115	0.0168	0.147	1.775	1.332	661	638	0.081 0.148
Illness with a cough in the previous 2 weeks	-	0.067	0.0121	0.181	1.497	1.223	661	638	0.043 0.091
Fever in last two weeks	-	0.077	0.0143	0.185	1.822	1.350	661	638	0.049 0.106
Oral rehydration therapy with continued feeding	3.8	0.179	0.0273	0.153	0.375	0.612	76	75	0.124 0.233
Antibiotic treatment of suspected pneumonia	3.10	*	*	*	*	*	44	43	* *
Children under age 5 sleeping under insecticide-treated nets (ITNs)	3.15	0.220	0.0279	0.127	2.81	1.676	640	619	0.164 0.275
Anti-malarial treatment of children under age 5	3.18	*	*	*	*	*	51	48	* *
Support for learning	6.1	0.681	0.0349	0.051	1.587	1.260	297	285	0.611 0.751
Attendance to early childhood education	6.7	0.000	0.000	0.000	N/A	N/A	297	285	0.000 0.000

(\*) the number of unweighted observations is less than 50

## Appendix D. Data Quality Tables

**Table DQ.1: Age distribution of household population**

Single-year age distribution of household population by sex, Somaliland, 2011

	Males		Females		Males		Females		
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
0	482	3.2	457	2.9	45	2.78	1.9	172	1.1
1	390	2.6	380	2.4	46	22	0.1	26	0.2
2	536	3.6	479	3.1	47	28	0.2	25	0.2
3	535	3.6	554	3.5	48	36	0.2	37	0.2
4	498	3.3	453	2.9	49	32	0.2	27	0.2
5	595	4.0	556	3.6	50	331	2.2	342	2.2
6	565	3.8	569	3.6	51	21	0.1	36	0.2
7	551	3.7	501	3.2	52	31	0.2	90	0.6
8	571	3.8	556	3.5	53	15	0.1	65	0.4
9	478	3.2	446	2.8	54	22	0.1	44	0.3
10	597	4.0	563	3.6	55	122	0.8	167	1.1
11	413	2.8	383	2.4	56	20	0.1	33	0.2
12	550	3.7	500	3.2	57	11	0.1	26	0.2
13	407	2.7	510	3.3	58	25	0.2	21	0.1
14	428	2.9	504	3.2	59	9	0.1	19	0.1
15	421	2.8	335	2.1	60	292	2.0	280	1.8
16	401	2.7	375	2.4	61	8	0.1	14	0.1
17	301	2.0	325	2.1	62	18	0.1	12	0.1
18	461	3.1	423	2.7	63	8	0.1	11	0.1
19	228	1.5	221	1.4	64	7	0.0	7	0.0
20	438	2.9	482	3.1	65	67	0.4	73	0.5
21	164	1.1	153	1.0	66	8	0.1	7	0.0
22	209	1.4	256	1.6	67	5	0.0	7	0.0
23	191	1.3	255	1.6	68	6	0.0	5	0.0
24	144	1.0	163	1.0	69	2	0.0	4	0.0
25	329	2.2	441	2.8	70	154	1.0	179	1.1
26	126	0.8	186	1.2	71	6	0.0	2	0.0
27	116	0.8	203	1.3	72	4	0.0	4	0.0
28	145	1.0	246	1.6	73	6	0.0	4	0.0
29	78	0.5	102	0.6	74	4	0.0	2	0.0
30	393	2.6	485	3.1	75	20	0.1	29	0.2
31	33	0.2	63	0.4	76	1	0.0	1	0.0
32	110	0.7	115	0.7	77	3	0.0	2	0.0
33	50	0.3	73	0.5	78	4	0.0	5	0.0
34	63	0.4	69	0.4	80+	103	0.7	165	1.1
35	282	1.9	374	2.4	DK/Missing	27	0.2	7	0.0
36	48	0.3	82	0.5					
37	44	0.3	83	0.5					
38	93	0.6	133	0.8					
39	36	0.2	56	0.4					
40	560	3.7	414	2.6					
41	23	0.2	43	0.3					
42	60	0.4	71	0.5					
43	34	0.2	44	0.3					
44	22	0.1	35	0.2	Total	14,952	100.0	15,667	100.0

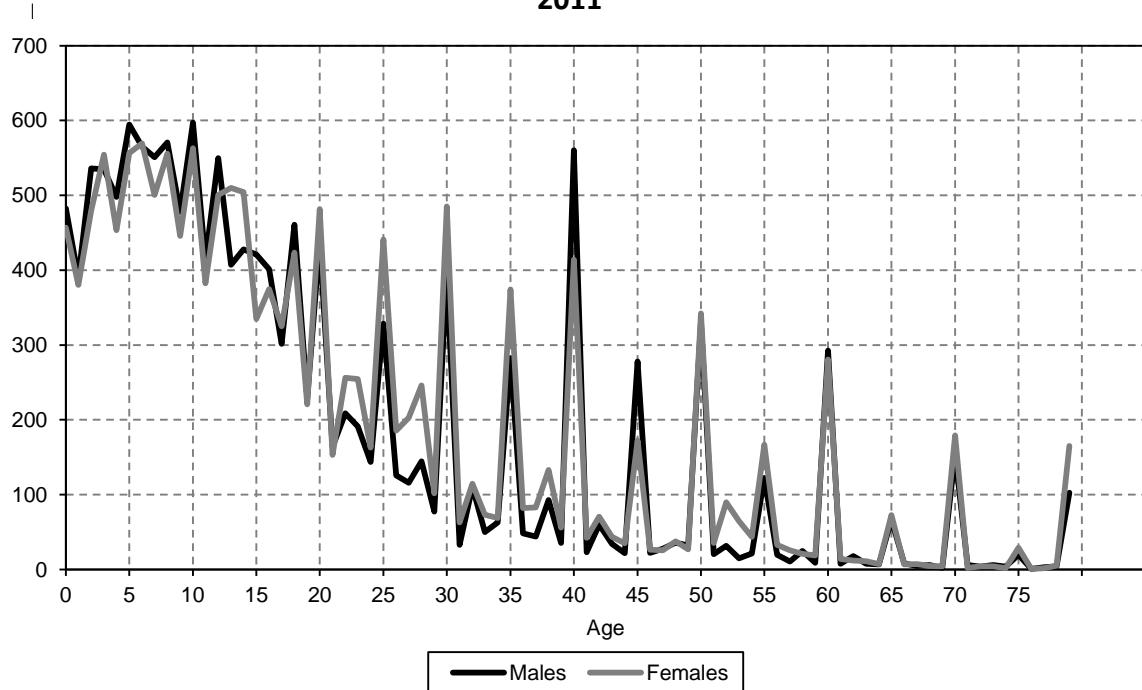
**Table DQ.2: Age distribution of eligible and interviewed women**

Household population of women age 10-54, interviewed women age 15-49, and percentage of eligible women who were interviewed, by five-year age groups, Somaliland, 2011

	Household population of women age 10-54 years		Interviewed women age 15-49 years		Percentage of eligible women interviewed (Completion rate)
	Number	Number	Number	Percent	
<b>Age</b>					
10-14	2,460	na	na	na	na
15-19	1,678	1,430	24.6	85.2	
20-24	1,309	1,139	19.6	87.0	
25-29	1,177	1,053	18.1	89.4	
30-34	805	732	12.6	90.9	
35-39	728	661	11.4	90.8	
40-44	606	544	9.4	89.7	
45-49	289	252	4.3	87.4	
50-54	576	na	na	na	Na
Total (15-49)	6,592	5,811	100.0	88.2	
Ratio of 50-54 to 45-49		2.00			

na= not applicable

**Figure DQ.1: Number of household population by single ages, Somaliland,  
2011**



**Table DQ.3: Age distribution of under-5s in household and under-5 questionnaires**

Household population of children age 0-7, children age 0-4 whose mothers/caretakers were interviewed, and percentage of under-5 children whose mothers/caretakers were interviewed, by single ages, Somaliland, 2011

	Household population of children 0-7 years	Interviewed under-5 children		Percentage of eligible under-5s interviewed (Completion rate)
		Number	Percent	
<b>Age</b>				
0	939	923	19.8	98.3
1	770	757	16.2	98.3
2	1,015	988	21.2	97.3
3	1,089	1,073	23.0	98.5
4	951	922	19.8	97.0
5	1,151	Na	na	na
6	1,134	Na	na	na
7	1,051	Na	na	na
Total (0-4)	4,765	4,664	100.0	97.9
Ratio of 5 to 4		1.21		

**Table DQ.4: Women's completion rates by socio-economic characteristics of households**

Household population of women age 15-49, interviewed women age 15-49, and percentage of eligible women who were interviewed, by selected social and economic characteristics of the household, Somaliland, 2011

	Household population of women age 15-49 years	Interviewed women age 15-49 years		Percent of eligible women interviewed (Completion rates)
		Number	Percent	
<b>Region</b>				
Maroodijeex/Saaxil	3,334	50.6	2,893	49.8
Awdal	924	14.0	829	14.3
Togdheer	1,186	18.0	1,058	18.2
Sool	345	5.2	318	5.5
Sanaag	802	12.2	714	12.3
<b>Area</b>				
Urban	3,797	57.6	3,369	58.0
Rural	2,795	42.4	2,442	42.0
<b>Household size</b>				
1-3	611	9.3	580	10.0
4-6	2,210	33.5	2,019	34.7
7+	3,771	57.2	3,212	55.3
<b>Education of household head</b>				
None	4,286	65.0	3,745	64.4
Primary	941	14.3	839	14.4
Secondary +	1,197	18.2	1,076	18.5
Missing/DK	168	2.6	151	2.6
<b>Wealth index quintiles</b>				
Poorest	1,065	16.2	903	15.5
Second	1,198	18.2	1,050	18.1
Middle	1,281	19.4	1,154	19.9
Fourth	1,407	21.3	1,249	21.5
Richest	1,641	24.9	1,455	25.0
Total	6,592	100.0	5,811	100.0
				88.2

**Table DQ.5: Completion rates for under-5 questionnaires by socio-economic characteristics of households**

Household population of under-5 children, under-5 questionnaires completed, and percentage of under-5 children for whom interviews were completed, by selected socio-economic characteristics of the household, Somaliland, 2011

	Household population of under-5 children		Interviewed under-5 children		Percent of eligible under-5s with completed under-5 questionnaires (Completion rates)
	Number	Percent	Number	Percent	
<b>Region</b>					
Maroodijeex/Saaxil	2,128	44.7	2,070	44.4	97.3
Awdal	738	15.5	727	15.6	98.5
Togdheer	958	20.1	948	20.3	98.9
Sool	267	5.6	262	5.6	97.9
Sanaag	674	14.1	658	14.1	97.6
<b>Area</b>					
Urban	2,301	48.3	2,252	48.3	97.9
Rural	2,464	51.7	2,412	51.7	97.9
<b>Household size</b>					
1-3	237	5.0	235	5.0	99.1
4-6	1,866	39.2	1,835	39.3	98.4
7+	2,662	55.9	2,594	55.6	97.4
<b>Education of household head</b>					
None	2,918	61.2	2,861	61.3	98.0
Primary	761	16.0	745	16.0	97.9
Secondary +	897	18.8	872	18.7	97.2
Missing/DK	189	4.0	186	4.0	98.5
<b>Wealth index quintiles</b>					
Poorest	1,011	21.2	994	21.3	98.3
Second	1,079	22.6	1,054	22.6	97.7
Middle	958	20.1	939	20.1	98.0
Fourth	927	19.5	914	19.6	98.5
Richest	790	16.6	763	16.4	96.6
<b>Total</b>	<b>4,765</b>	<b>100.0</b>	<b>4,664</b>	<b>100.0</b>	<b>97.9</b>

**Table DQ.6: Completeness of reporting**

Percentage of observations that are missing information for selected questions and indicators, Somaliland, 2011

Questionnaire and type of missing information	Reference group	Percent with missing/incomplete information <sup>a</sup>	Number of cases
<b>Household</b>			
Age	All household members	0.1	30,777
Starting time of interview	All households interviewed	0.5	4,820
Ending time of interview	All households interviewed	0.2	4,820
<b>Women</b>			
Woman's date of birth	All women age 15-49		
Only month		52.2	5,865
Both month and year		4.3	5,865
Age at first marriage/union	All ever married women age 15-49 with year of first marriage not known	3.4	3,617
Age at first intercourse	All women age 15-24 who have ever had sex		
Time since last intercourse	All women age 15-24 who have ever had sex		
Starting time of interview	All women interviewed	4.7	5,865
Ending time of interview	All women interviewed	0.4	5,865
<b>Under-5</b>			
Date of birth	All under-5 children		
Only month		3.9	4,672
Both month and year		0.0	4,672
Starting time of interview	All under-5 children	3.5	4,672

<sup>a</sup> Includes "Don't know" responses

**Table DQ.7: Observation of bednets and places for hand washing**

Percentage of bednets in all households interviewed observed by the interviewer, and percentage of places for handwashing observed by the interviewer in all interviewed households, Somaliland, 2011

	Percentage of bednets observed by interviewer	Total number of bednets	Place for handwashing				Number of households interviewed	
			Not observed		Number of households interviewed	Number of households interviewed		
			Not in the dwelling, plot or yard	No permission to see				
<b>Region</b>								
Maroodijeex/Saaxil	65.1	1,157	27.4	62.0	5.2	5.2	100.0	
Awdal	67.3	670	18.2	70.3	5.0	6.4	100.0	
Togdheer	72.9	844	17.0	72.9	3.0	7.2	100.0	
Sool	75.8	157	12.5	78.0	5.7	3.7	100.0	
Sanaag	84.1	340	20.4	68.5	4.0	7.0	100.0	
<b>Area</b>								
Urban	68.1	1,676	32.2	56.1	7.0	4.5	100.0	
Rural	72.5	1,492	12.2	78.3	2.2	7.2	100.0	
<b>Wealth index quintiles</b>								
Poorest	64.2	385	9.5	81.0	2.4	7.0	100.0	
Second	71.7	676	12.9	76.1	2.2	8.8	100.0	
Middle	72.0	647	15.2	75.6	4.2	4.8	100.0	
Fourth	74.7	628	31.0	58.1	6.1	4.8	100.0	
Richest	66.9	832	47.8	39.2	9.2	3.4	100.0	
Total	70.2	3,168	22.1	67.2	4.6	5.9	100.0	
							4,820	

**Table DQ.8: Observation of women's health cards**

Percent distribution of women with a live birth in the last 2 years by presence of a health card, and the percentage of health cards seen by the interviewers, Somaliland, 2011

	Woman does not have health card	Woman has health card				Percent of health cards seen by the interviewer $(1)/(1+2)*100$	Number of women with a live birth in the last two years		
		Seen by the interviewer (1)	Not seen by the interviewer (2)	Missing/DK					
				Total					
<b>Region</b>									
Maroodijeex/Saaxil	63.0	8.0	26.1	2.9	100.0	23.4	716		
Awdal	60.3	11.7	26.8	1.3	100.0	30.4	239		
Togdheer	67.7	9.9	21.4	1.0	100.0	31.6	313		
Sool	63.4	8.6	25.8	2.2	100.0	25.0	93		
Sanaag	69.9	10.7	18.4	1.0	100.0	36.8	196		
<b>Area</b>									
Urban	57.5	12.0	28.1	2.4	100.0	30.0	797		
Rural	71.7	6.4	20.3	1.6	100.0	24.1	760		
<b>Wealth index quintiles</b>									
Poorest	72.8	6.2	19.0	2.0	100.0	24.7	305		
Second	72.3	5.8	21.0	.9	100.0	21.6	328		
Middle	62.1	12.7	22.9	2.2	100.0	35.7	314		
Fourth	60.1	9.8	27.3	2.8	100.0	26.4	326		
Richest	53.9	12.3	31.7	2.1	100.0	28.0	284		
Total	64.4	9.3	24.3	2.0	100.0	27.7	1,557		

**Table DQ.9: Observation of vaccination cards**

Percent distribution of children under 5 by presence of a vaccination card, and the percentage of vaccination cards seen by the interviewers, Somaliland, 2011

	Child does not have vaccination card		Child has vaccination card			Percent of vaccination cards seen by the interviewer (1)/(1+2)*100	Number of children under age 5
	Had vaccination card previously	Never had vaccination card	Seen by the interviewer (1)	Not seen by the interviewer (2)	Don't know/Missing		
<b>Region</b>							
Maroodijeex/Saxil	4.5	41.7	15.3	37.8	0.6	100.0	2,099
Awdal	4.1	38.8	18.1	39.0	0.0	100.0	725
Togdheer	2.2	45.6	18.8	33.3	0.2	100.0	944
Sool	3.4	53.0	12.4	30.8	0.4	100.0	266
Sanaag	1.7	43.3	26.8	28.2	0.0	100.0	638
<b>Area</b>							
Urban	3.8	36.9	18.5	40.3	0.5	100.0	31.4
Rural	3.3	49.1	17.2	30.2	0.2	100.0	36.2
<b>Child's age</b>							
0	1.1	60.1	21.7	16.6	0.5	100.0	56.6
1	2.7	41.7	20.8	34.3	0.5	100.0	770
2	3.8	39.4	18.3	38.1	0.3	100.0	32.5
3	4.3	36.4	15.8	43.1	0.4	100.0	26.9
4	5.7	37.6	13.3	43.4	0.0	100.0	23.5
Total	3.6	42.9	17.9	35.4	0.3	100.0	33.5
							4,672

**Table DQ.10: Presence of mother in the household and the person interviewed for the under-5 questionnaire**

Distribution of children under five by whether the mother lives in the same household, and the person interviewed for the under-5 questionnaire, Somaliland, 2011

	Mother in the household				Mother not in the household				Number of children under 5
	Mother interviewed	Father interviewed	Other adult female interviewed	Other adult male interviewed	Father interviewed	Other adult female interviewed	Other adult male interviewed	Total	
<b>Age</b>									
0	97.5	0.0	0.1	0.1	0.0	2.3	0.0	100.0	939
1	94.8	0.1	0.1	0.0	0.0	4.8	0.0	100.0	770
2	91.1	0.0	0.1	0.0	0.5	7.8	0.4	100.0	1,015
3	90.4	0.0	0.1	0.1	0.0	9.2	0.1	100.0	1,089
4	88.4	0.0	0.1	0.0	0.3	11.0	0.1	100.0	951
Total	92.3	0.0	0.1	0.0	0.2	7.2	0.1	100.0	4,765

**Table DQ.11: Selection of children age 2-14 years for the child discipline module**

Percent of households with at least two children age 2-14 years where correct selection of one child for the child discipline module was performed, Somaliland, 2011

	Percent of households where correct selection was performed	Number of households with 2 or more children age 2-14 years
<b>Region</b>		
Maroodijeex/Saaxil	78.6	1,447
Awdal	83.6	500
Togdheer	81.7	630
Sool	78.9	204
Sanaag	83.2	465
<b>Area</b>		
Urban	78.4	1,637
Rural	82.9	1,609
<b>Number of children age 2-14 years</b>		
2	84.2	812
3	84.5	789
4	80.5	611
5+	75.0	1,034
<b>Total</b>	<b>80.7</b>	<b>3,246</b>

**Table DQ.12: School attendance by single age**

Distribution of household population age 5-24 by educational level and grade attended in the current (or most recent) school year, Somaliland, 2011

Age at beginning of school year	Currently attending																	Number of household members	
	Not attending school	Pre-school	Primary school Grade								Missing and Inconsistent data	Secondary school Grade				Higher than secondary	Missing/D K		
			1	2	3	4	5	6	7	8		1	2	3	4				
5	82.7	2.6	7.2	5.6	1.5	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	100.0	1,084
6	71.6	2.4	10.8	9.9	3.9	0.7	0.4	0.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.1	100.0	1,118
7	59.7	1.4	8.8	14.8	9.4	3.9	1.0	0.5	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	100.0	1,126
8	46.4	0.7	7.4	17.1	15.0	8.1	3.6	1.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	924
9	45.7	0.9	5.3	11.3	15.5	10.2	6.5	2.6	1.1	0.4	0.1	0.1	0.1	0.2	0.0	0.0	0.0	100.0	1,160
10	36.6	0.5	4.1	9.2	12.9	14.0	10.7	7.9	2.6	1.0	0.1	0.2	0.0	0.0	0.2	0.0	0.0	100.0	796
11	38.7	0.5	2.4	5.3	8.6	13.8	12.6	9.4	5.4	2.4	0.0	0.3	0.4	0.0	0.2	0.1	0.1	100.0	1,050
12	35.7	0.3	1.1	4.0	8.4	10.1	10.5	12.2	10.6	5.4	0.0	0.4	0.7	0.3	0.1	0.0	0.1	100.0	963
13	37.8	0.1	1.4	2.3	4.1	7.9	8.6	9.5	10.5	11.4	0.0	2.3	2.6	1.0	0.1	0.2	0.2	100.0	883
14	36.4	0.1	0.7	3.0	3.9	4.4	6.1	6.9	11.2	15.8	0.0	4.6	3.2	2.9	0.5	0.3	0.0	100.0	771
15	42.8	0.1	0.8	1.2	1.6	2.2	5.1	5.5	7.2	13.8	0.0	5.1	6.2	5.6	2.0	0.5	0.1	100.0	738
16	46.9	0.1	1.4	1.1	1.7	1.7	2.4	3.5	4.7	10.4	0.2	3.1	8.2	6.9	6.0	1.5	0.2	100.0	650
17	56.5	0.1	0.3	0.4	1.2	2.1	1.8	2.2	2.5	7.4	0.0	2.6	6.2	7.3	7.2	2.2	0.0	100.0	884
18	59.5	0.0	0.7	0.2	0.7	0.9	0.7	1.6	1.3	5.0	0.0	2.2	4.9	5.9	8.7	7.7	0.0	100.0	450
19	73.7	0.0	0.1	0.7	0.1	0.8	0.9	0.7	0.4	3.4	0.0	1.3	2.5	3.8	6.4	5.0	0.2	100.0	919
20	68.9	0.0	0.3	0.6	0.3	1.0	0.0	0.0	1.3	1.9	0.0	1.3	4.1	3.4	6.2	10.3	0.3	100.0	317
21	75.7	0.0	0.4	0.2	0.0	0.2	0.7	0.6	0.0	1.3	0.0	0.4	2.1	2.0	4.8	11.5	0.0	100.0	465
22	81.1	0.0	0.0	0.0	0.2	0.0	0.5	0.0	0.2	1.3	0.0	0.7	0.9	1.5	3.5	9.9	0.2	100.0	446
23	83.2	0.0	0.0	0.3	0.3	0.3	0.0	0.6	0.3	0.7	0.0	0.6	0.7	0.7	2.2	10.0	0.0	100.0	307
24	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	770

**Table DQ.13: Sex ratio at birth among children ever born and living**

Sex ratio (number of males per 100 females) among children ever born (at birth), children living, and deceased children, by age of women, Somaliland, 2011

	Children Ever Born			Children Living			Children Deceased			Number of women
	Number of sons ever born	Number of daughters ever born	Sex ratio at birth	Number of sons living	Number of daughters living	Sex ratio	Number of deceased sons	Number of deceased daughters	Sex ratio	
<b>Age</b>										
15-19	64	60	1.1	56	52	1.1	8	8	1.0	1,464
20-24	488	480	1.0	444	438	1.0	44	42	1.0	1,152
25-29	1,438	1,325	1.1	1,283	1,243	1.0	155	82	1.9	1,059
30-34	1,732	1,627	1.1	1,541	1,490	1.0	191	137	1.4	722
35-39	2,082	1,857	1.1	1,879	1,685	1.1	203	172	1.2	669
40-44	1,916	1,761	1.1	1,702	1,527	1.1	214	234	0.9	535
45-49	1,019	851	1.2	865	732	1.2	154	119	1.3	264
Total	8,739	7,961	1.1	7,770	7,167	1.1	969	794	1.2	5,865

**Table DQ.14: Births by calendar years**

Number of births, percentage with complete birth date, sex ratio at birth, and calendar year ratio by calendar year, according to living, dead, and total children (weighted, unimputed), Somaliland, 2011

	Number of births			Percent with complete birth date <sup>a</sup>			Sex ratio at birth <sup>b</sup>			Calendar year ratio <sup>c</sup>		
	Living	Dead	Total	Living	Dead	Total	Living	Dead	Total	Living	Dead	Total
Year of birth												
2011	578	28	606	99.3	100.0	99.3	108.4	266.3	112.7	na	na	na
2010	866	44	911	98.1	100.0	98.1	99.0	95.3	98.8	na	na	na
2009	902	73	975	95.8	91.7	95.5	111.7	112.6	111.8	97.3	104.8	97.9
2008	986	95	1082	95.5	94.5	95.4	103.7	120.3	105.1	111.0	119.6	111.7
2007	875	86	962	95.0	91.5	94.7	105.7	116.8	106.7	89.3	93.6	89.6
2006	975	89	1,064	92.6	89.7	92.4	111.8	120.7	112.5	106.5	101.1	106.0
2005	955	90	1,045	93.7	86.3	93.1	95.0	119.8	96.9	104.9	88.3	103.2
2004	847	115	962	92.9	89.3	92.5	115.4	100.5	113.5	93.9	120.3	96.5
2003	848	101	949	92.6	88.6	92.2	110.4	148.9	113.9	105.6	98.7	104.8
2002	760	89	849	93.4	86.1	92.6	97.1	101.6	97.5	91.8	110.6	93.5
2001	807	61	868	90.4	89.6	90.4	109.0	113.5	109.3	114.7	75.7	110.7
2000	648	71	719	93.2	87.5	92.6	116.9	120.9	117.3	87.3	102.7	88.6
1999	678	78	756	91.3	92.7	91.4	115.7	116.8	115.8	108.3	108.5	108.4
1998	603	73	676	91.4	84.5	90.7	92.5	152.6	97.5	96.4	100.3	96.8
1997	574	67	640	91.4	90.7	91.3	96.0	201.6	103.4	106.4	93.5	104.9
1996	475	70	545	90.9	87.6	90.5	108.3	164.3	114.1	90.0	94.9	90.6
1995	482	81	563	91.7	87.0	91.0	122.4	91.7	117.3	111.9	116.8	112.6
1994	387	69	455	90.9	89.7	90.7	112.9	94.2	109.9	88.9	102.7	90.7
1993	388	53	441	90.1	88.0	89.8	112.9	123.7	114.2	126.4	81.0	118.4
1992	228	61	289	87.8	82.2	86.6	122.4	237.4	139.7	68.0	124.0	75.2
1991	282	46	328	91.2	89.3	91.0	117.3	153.8	121.8	12.7	23.8	13.6
2007–2011	4,208	328	4,536	96.5	94.3	96.3	105.4	121.3	106.5	na	na	na
2002–2006	4,385	484	4,869	93.1	88.1	92.6	105.7	116.7	106.7	na	na	na
1997–2001	3,309	350	3,659	91.5	89.0	91.2	106.2	136.8	108.8	na	na	na
1992–1996	1,960	334	2,294	90.6	86.9	90.0	115.1	128.8	117.0	na	na	na
<1992	1,063	234	1,296	91.1	88.4	90.7	129.1	115.4	126.5	na	na	na
DK/missing	114	49	163	0.0	0.0	13.4	120.4	152.8	129.2	na	na	na
Total	15,040	1,778	16,818	92.5	86.8	92.0	108.5	124.2	110.1	na	na	na

na = not applicable

Interviews were conducted from June to July, 2011.

<sup>a</sup>Both month and year of birth given<sup>b</sup> $(B_m/B_f) \times 100$ , where  $B_m$  and  $B_f$  are the numbers of male and female births, respectively<sup>c</sup> $(2 \times B_t/(B_{t-1} + B_{t+1})) \times 100$ , where  $B_t$  is the number of births in calendar year t

**Table DQ.15: Reporting of age at death in days**

Distribution of reported deaths under one month of age by age at death in days and the percentage of neonatal deaths reported to occur at ages 0–6 days, by 5-year periods preceding the survey (weighted, unimputed), Somaliland, 2011

Age at death (days)	Number of years preceding the survey				Total 0–19
	0–4	5–9	10–14	15–19	
0	17	24	10	6	57
1	49	43	19	15	128
2	12	23	12	8	55
3	13	22	12	11	58
4	4	11	5	4	24
5	6	11	11	5	33
6	1	6	5	4	17
7	7	10	10	14	41
8	2	1	2	2	7
9	1	5	2	5	13
10	3	5	2	4	14
11	2	0	1	0	3
12	0	3	2	0	5
13	0	0	2	2	4
14	2	2	0	1	5
15	3	5	1	0	9
16	0	0	0	1	1
17	1	1	0	3	5
18	0	1	0	2	3
19	0	0	1	0	1
20	2	5	3	1	11
21	1	0	0	0	1
22	2	0	0	0	2
23	0	1	1	0	2
24	1	1	2	0	4
25	1	1	0	2	4
26	1	0	0	0	1
27	0	0	1	0	1
29	0	2	0	1	3
30	1	1	2	0	4
Total 0–30 days	133	185	108	91	517
Percent early neonatal <sup>a</sup>	77.4	76.1	70.2	57.9	72.0

<sup>a</sup><7 days / <31 days

**Table DQ.16: Reporting of age at death in months**

Distribution of reported deaths under two years of age by age at death in months and the percentage of infant deaths reported to occur at age under one month, by 5-year periods preceding the survey (weighted, unimputed), Somaliland, 2011

Age at death (months)	Number of years preceding the survey				Total 0–19
	0–4	5–9	10–14	15–19	
0	133	185	108	92	518
1	10	20	16	10	56
2	12	17	18	13	60
3	12	24	21	15	72
4	7	23	14	12	56
5	7	16	9	13	46
6	9	30	16	17	72
7	5	9	10	5	29
8	7	25	18	11	62
9	5	13	9	8	35
10	2	5	5	4	16
11	2	4	5	4	15
12	11	28	20	26	84
13	2	1	4	1	8
14	1	1	1	4	7
15	1	2	3	4	10
16	1	0	1	0	2
17	1	1	1	4	7
18	0	4	1	3	8
20	1	0	1	0	2
21	0	1	0	0	1
22	0	0	1	0	1
23	0	2	3	2	7
Total 0–11 months	212	372	248	204	1037
Percent neonatal <sup>a</sup>	62.6	49.8	43.5	45.1	50.0

<sup>a</sup> <1 month / <1 year

## Appendix E. Somaliland MICS4 Indicators: Numerators and Denominators

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MICS4 INDICATOR		Module <sup>18</sup>	Numerator	Denominator	MDG <sup>19</sup>
<b>1. MORTALITY</b>					
1.1	Under-five mortality rate <sup>20</sup>	BH	Probability of dying by exact age 5 years		MDG 4.1
1.2	Infant mortality rate <sup>21</sup>	BH	Probability of dying by exact age 1 year		MDG 4.2
1.3	Neonatal mortality rate	BH	Probability of dying within the first month of life, during the 5-year period preceding the survey		
1.4	Post-neonatal mortality rate	BH	Difference between infant and neonatal mortality rates, during the 5-year period preceding the survey		
1.5	Child mortality rate	BH	Probability of dying between exact ages one and five, during the 5-year period preceding the survey		
<b>2. NUTRITION</b>					
2.4	Children ever breastfed	MN	Number of women with a live birth in the 2 years preceding the survey who breastfed the child at any time	Total number of women with a live birth in the 2 years preceding the survey	
2.5	Early initiation of breastfeeding	MN	Number of women with a live birth in the 2 years preceding the survey who put the newborn infant to the breast within 1 hour of birth	Total number of women with a live birth in the 2 years preceding the survey	
2.6	Exclusive breastfeeding under 6 months	BF	Number of infants under 6 months of age who are exclusively breastfed <sup>22</sup>	Total number of infants under 6 months of age	
2.7	Continued breastfeeding at 1 year	BF	Number of children age 12-15 months who are currently breastfeeding	Total number of children age 12-15 months	

<sup>[M]</sup> Indicates that the indicator is also calculated for men, for the same age group, in surveys where the Questionnaire for Individual Men has been included. Calculations are carried out by using modules in the Men's Questionnaire

<sup>18</sup> Some indicators are constructed by using questions in several modules. In such cases, only the module(s) which contains most of the necessary information is indicated.

<sup>19</sup> MDG indicators as of February 2010

<sup>20</sup> Indicator is defined as "Probability of dying between birth and fifth birthday, during the 5-year period preceding the survey" when estimated from the birth history

<sup>21</sup> Indicator is defined as "Probability of dying between birth and the first birthday, during the 5-year period preceding the survey" when estimated from the birth history

<sup>22</sup> Infants receiving breast milk, and not receiving any other fluids or foods, with the exception of oral rehydration solution, vitamins, mineral supplements and medicines

MICS4 INDICATOR		Module <sup>18</sup>	Numerator	Denominator	MDG <sup>19</sup>
2.8	Continued breastfeeding at 2 years	BF	Number of children age 20-23 months who are currently breastfeeding	Total number of children age 20-23 months	
2.9	Predominant breastfeeding under 6 months	BF	Number of infants under 6 months of age who received breast milk as the predominant source of nourishment <sup>23</sup> during the previous day	Total number of infants under 6 months of age	
2.10	Duration of breastfeeding	BF	The age in months when 50 percent of children age 0-35 months did not receive breast milk during the previous day		
2.11	Bottle feeding	BF	Number of children age 0-23 months who were fed with a bottle during the previous day	Total number of children age 0-23 months	
2.12	Introduction of solid, semi-solid or soft foods	BF	Number of infants age 6-8 months who received solid, semi-solid or soft foods during the previous day	Total number of infants age 6-8 months	
2.13	Minimum meal frequency	BF	Number of children age 6-23 months receiving solid, semi-solid and soft foods (plus milk feeds for non-breastfed children) the minimum times <sup>24</sup> or more, according to breastfeeding status, during the previous day	Total number of children age 6-23 months	
2.14	Age-appropriate breastfeeding	BF	Number of children age 0-23 months appropriately fed <sup>25</sup> during the previous day	Total number of children age 0-23 months	
2.15	Milk feeding frequency for non-breastfed children	BF	Number of non-breastfed children age 6-23 months who received at least 2 milk feedings during the previous day	Total number of non-breastfed children age 6-23 months	
2.17	Vitamin A supplementation (children under age 5)	IM	Number of children age 6-59 months who received at least one high-dose vitamin A supplement in the 6 months preceding the survey	Total number of children age 6-59 months	
2.18	Low-birthweight infants	MN	Number of last live births in the 2 years preceding the survey weighing below 2,500 grams at birth	Total number of last live births in the 2 years preceding the survey	
<b>3. CHILD HEALTH</b>					
3.1	Tuberculosis immunization	IM	Number of children age 12-23 months <sup>26</sup> who received	Total number of children age 12-23 months	

<sup>23</sup> Infants who receive breast milk and certain fluids (water and water-based drinks, fruit juice, ritual fluids, oral rehydration solution, drops, vitamins, minerals, and medicines), but do not receive anything else (in particular, non-human milk and food-based fluids)

<sup>24</sup> Breastfeeding children: Solid, semi-solid, or soft foods, two times for infants age 6-8 months, 3 times for children 9-23 months; Non-breastfeeding children: Solid, semi-solid, or soft foods, or milk feeds, four times for children age 6-23 months

<sup>25</sup> Infants age 0-5 who are exclusively breastfed, and children age 6-23 months who are breastfed and ate solid, semi-solid or soft foods

MICS4 INDICATOR		Module <sup>18</sup>	Numerator	Denominator	MDG <sup>19</sup>
	coverage		BCG vaccine before their first birthday		
3.2	Polio immunization coverage	IM	Number of children age 12-23 months who received OPV3 vaccine before their first birthday	Total number of children age 12-23 months	
3.3	Immunization coverage for diphtheria, pertussis and tetanus (DPT)	IM	Number of children age 12-23 months who received DPT3 vaccine before their first birthday	Total number of children age 12-23 months	
3.4	Measles immunization coverage	IM	Number of children age 12-23 months who received measles vaccine before their first birthday	Total number of children age 12-23 months	MDG 4.3
3.7	Neonatal tetanus protection	MN	Number of women age 15-49 years with a live birth in the 2 years preceding the survey who were given at least two doses of tetanus toxoid vaccine within the appropriate interval <sup>27</sup> prior to giving birth	Total number of women age 15-49 years with a live birth in the 2 years preceding the survey	
3.8	Oral rehydration therapy with continued feeding	CA	Number of children under age 5 with diarrhoea in the previous 2 weeks who received ORT (ORS packet or recommended homemade fluid or increased fluids) and continued feeding during the episode of diarrhoea	Total number of children under age 5 with diarrhoea in the previous 2 weeks	
3.9	Care-seeking for suspected pneumonia	CA	Number of children under age 5 with suspected pneumonia in the previous 2 weeks who were taken to an appropriate health provider	Total number of children under age 5 with suspected pneumonia in the previous 2 weeks	
3.11	Solid fuels	HC	Number of household members in households that use solid fuels as the primary source of domestic energy to cook	Total number of household members	
3.12	Household availability of insecticide-treated nets (ITNs) <sup>28</sup>	TN	Number of households with at least one insecticide treated net (ITN)	Total number of households	
3.13	Households protected by a vector control method	TN - IR	Number of households with at least one insecticide-treated net (ITN) or that received spraying through an IRS <sup>29</sup> campaign in the last 12 months preceding the survey	Total number of households	
3.14	Children under age 5 sleeping	TN	Number of children under age 5 who slept under any	Total number of children under age 5	

<sup>26</sup> Indicators 3.1, 3.2, 3.3, 3.4, 3.5 and 3.6 may be calculated for an older age group, such as 15-26 months or 18-29 months, depending on the immunization schedule

<sup>27</sup> See MICS4 manual for a detailed description

<sup>28</sup> An ITN is (a) a factory treated net which does not require any treatment, (b) a pretreated net obtained within the past 12 months, or (c) a net that has been soaked with or dipped in insecticide within the past 12 months

<sup>29</sup> Indoor residual spraying

MICS4 INDICATOR		Module <sup>18</sup>	Numerator	Denominator	MDG <sup>19</sup>
	under any type of mosquito net		type of mosquito net the previous night		
3.15	Children under age 5 sleeping under insecticide-treated nets (ITNs)	TN	Number of children under age 5 who slept under an insecticide-treated mosquito net (ITN) the previous night	Total number of children under age 5	MDG 6.7
3.16	Malaria diagnostics usage	ML	Number of children under age 5 reported to have had fever in the previous 2 weeks who had a finger or heel stick for malaria testing	Total number of children under age 5 reported to have had fever in the previous 2 weeks	
3.17	Anti-malarial treatment of children under age 5 the same or next day	ML	Number of children under age 5 reported to have had fever in the previous 2 weeks who were treated with any anti-malarial drug within the same or next day of onset of symptoms	Total number of children under age 5 reported to have had fever in the previous 2 weeks	
3.18	Anti-malarial treatment of children under age 5	ML	Number of children under age 5 reported to have had fever in the previous 2 weeks who received any antimalarial treatment	Total number of children under age 5 reported to have had fever in the previous 2 weeks	MDG 6.8
3.19	Pregnant women sleeping under insecticide-treated nets (ITNs)	TN	Number of pregnant women who slept under an insecticide-treated net (ITN) the previous night	Total number of pregnant women	
3.20	Intermittent preventive treatment for malaria	MN	Number of women age 15-49 years who received at least 2 doses of SP/Fansidar to prevent malaria during antenatal care visits for their last pregnancy leading to a live birth in the 2 years preceding the survey	Total number of women age 15-49 years who have had a live birth in the 2 years preceding the survey	

MICS4 INDICATOR		Module <sup>18</sup>	Numerator	Denominator	MDG <sup>19</sup>
<b>4. WATER AND SANITATION</b>					
4.1	Use of improved drinking water sources	WS	Number of household members using improved sources of drinking water	Total number of household members	MDG 7.8
4.2	Water treatment	WS	Number of household members using unimproved drinking water who use an appropriate treatment method	Total number of household members in households using unimproved drinking water sources	
4.3	Use of improved sanitation	WS	Number of household members using improved sanitation facilities which are not shared	Total number of household members	MDG 7.9
4.4	Safe disposal of child's faeces	CA	Number of children age 0-2 years whose last stools were disposed of safely	Total number of children age 0-2 years	
4.5	Place for handwashing	HW	Number of households with a specific place for hand washing where water and soap are present	Total number of households	
4.6	Availability of soap	HW	Number of households with soap anywhere in the dwelling	Total number of households	
<b>5. REPRODUCTIVE HEALTH</b>					
5.1	Adolescent birth rate <sup>30</sup>	CM - BH	Age-specific fertility rate for women age 15-19 years for the one year period preceding the survey		MDG 5.4
5.2	Early childbearing	CM - BH	Number of women age 20-24 years who had at least one live birth before age 18	Total number of women age 20-24 years	
5.3	Contraceptive prevalence rate	CP	Number of women age 15-49 years currently married or in union who are using (or whose partner is using) a (modern or traditional) contraceptive method	Total number of women age 15-49 years who are currently married or in union	MDG 5.3
5.4	Unmet need <sup>31</sup>	UN	Number of women age 15-49 years who are currently married or in union who are fecund and want to space their births or limit the number of children they have and who are not currently using contraception	Total number of women age 15-49 years who are currently married or in union	MDG 5.6

<sup>30</sup> Indicator is defined as "Age-specific fertility rate for women age 15-19 years, for the 3-year period preceding the survey" when estimated from the birth history

<sup>31</sup> See MICS4 manual for a detailed description

<b>MICS4 INDICATOR</b>		<b>Module<sup>18</sup></b>	<b>Numerator</b>	<b>Denominator</b>	<b>MDG<sup>19</sup></b>
5.5a 5.5b	Antenatal care coverage	MN	Number of women age 15-49 years who were attended during pregnancy in the 2 years preceding the survey (a) at least once by skilled personnel (b) at least four times by any provider	Total number of women age 15-49 years with a live birth in the 2 years preceding the survey	MDG 5.5
5.6	Content of antenatal care	MN	Number of women age 15-49 years with a live birth in the 2 years preceding the survey who had their blood pressure measured and gave urine and blood samples during the last pregnancy	Total number of women age 15-49 years with a live birth in the 2 years preceding the survey	
5.7	Skilled attendant at delivery	MN	Number of women age 15-49 years with a live birth in the 2 years preceding the survey who were attended during childbirth by skilled health personnel	Total number of women age 15-49 years with a live birth in the 2 years preceding the survey	MDG 5.2
5.8	Institutional deliveries	MN	Number of women age 15-49 years with a live birth in the 2 years preceding the survey who delivered in a health facility	Total number of women age 15-49 years with a live birth in the 2 years preceding the survey	
5.9	Caesarean section	MN	Number of last live births in the 2 years preceding the survey who were delivered by caesarean section	Total number of last live births in the 2 years preceding the survey	
<b>6. CHILD DEVELOPMENT</b>					
6.1	Support for learning	EC	Number of children age 36-59 months with whom an adult has engaged in four or more activities to promote learning and school readiness in the past 3 days	Total number of children age 36-59 months	
6.2	Father's support for learning	EC	Number of children age 36-59 months whose father has engaged in one or more activities to promote learning and school readiness in the past 3 days	Total number of children age 36-59 months	
6.3	Learning materials: children's books	EC	Number of children under age 5 who have three or more children's books	Total number of children under age 5	
6.4	Learning materials: playthings	EC	Number of children under age 5 with two or more playthings	Total number of children under age 5	
6.5	Inadequate care	EC	Number of children under age 5 left alone or in the care of another child younger than 10 years of age for more than one hour at least once in the past week	Total number of children under age 5	
6.6	Early child development index	EC	Number of children age 36-59 months who are developmentally on track in literacy-numeracy,	Total number of children age 36-59 months	

MICS4 INDICATOR		Module <sup>18</sup>	Numerator	Denominator	MDG <sup>19</sup>
			physical, social-emotional, and learning domains		
6.7	Attendance to early childhood education	EC	Number of children age 36-59 months who are attending an early childhood education programme	Total number of children age 36-59 months	
<b>7. LITERACY AND EDUCATION</b>					
7.1	Literacy rate among young women <sup>[M]</sup>	WB	Number of women age 15-24 years who are able to read a short simple statement about everyday life or who attended secondary or higher education	Total number of women age 15-24 years	MDG 2.3
7.2	School readiness	ED	Number of children in first grade of primary school who attended pre-school during the previous school year	Total number of children attending the first grade of primary school	
7.3	Net intake rate in primary education	ED	Number of children of school-entry age who enter the first grade of primary school	Total number of children of school-entry age	
7.4	Primary school net attendance ratio (adjusted)	ED	Number of children of primary school age currently attending primary or secondary school	Total number of children of primary school age	MDG 2.1
7.5	Secondary school net attendance ratio (adjusted)	ED	Number of children of secondary school age currently attending secondary school or higher	Total number of children of secondary school age	
7.6	Children reaching last grade of primary	ED	Proportion of children entering the first grade of primary school who eventually reach last grade		MDG 2.2
7.7	Primary completion rate	ED	Number of children attending the last grade of primary school (excluding repeaters)	Total number of children of primary school completion age (age appropriate to final grade of primary school)	
7.8	Transition rate to secondary school	ED	Number of children attending the last grade of primary school during the previous school year who are in the first grade of secondary school during the current school year	Total number of children attending the last grade of primary school during the previous school year	
7.9	Gender parity index (primary school)	ED	Primary school net attendance ratio (adjusted) for girls	Primary school net attendance ratio (adjusted) for boys	MDG 3.1
7.10	Gender parity index (secondary school)	ED	Secondary school net attendance ratio (adjusted) for girls	Secondary school net attendance ratio (adjusted) for boys	MDG 3.1
<b>8. CHILD PROTECTION</b>					
8.2	Child labour	CL	Number of children age 5-14 years who are involved in	Total number of children age 5-14 years	

MICS4 INDICATOR		Module <sup>18</sup>	Numerator	Denominator	MDG <sup>19</sup>
			child labour		
8.3	School attendance among child labourers	ED - CL	Number of children age 5-14 years who are involved in child labour and are currently attending school	Total number of children age 5-14 years involved in child labour	
8.4	Child labour among students	ED - CL	Number of children age 5-14 years who are involved in child labour and are currently attending school	Total number of children age 5-14 years attending school	
8.5	Violent discipline	CD	Number of children age 2-14 years who experienced psychological aggression or physical punishment during the past month	Total number of children age 2-14 years	
8.6	Marriage before age 15	MA	Number of women age 15-49 years who were first married or in union by the exact age of 15	Total number of women age 15-49 years	
8.7	Marriage before age 18	MA	Number of women age 20-49 years who were first married or in union by the exact age of 18	Total number of women age 20-49 years	
8.8	Young women age 15-19 years currently married or in union	MA	Number of women age 15-19 years who are currently married or in union	Total number of women age 15-19 years	
8.9	Polygyny <sup>1</sup>	MA	Number of women age 15-49 years who are in a polygynous union	Total number of women age 15-49 years who are currently married or in union	
8.10a 8.10b	Spousal age difference	MA	Number of women currently married or in union whose spouse is 10 or more years older, (a) for women age 15-19 years, (b) for women age 20-24 years	Total number of women currently married or in union (a) age 15-19 years, (b) age 20-24 years	
8.11	Approval for female genital mutilation/cutting (FGM/C)	FG	Number of women age 15-49 years favouring the continuation of FGM/C	Total number of women age 15-49 years who have heard of FGM/C	
8.12	Prevalence of female genital mutilation/cutting (FGM/C) among women	FG	Number of women age 15-49 years who report to have undergone any form of FGM/C	Total number of women age 15-49 years	
8.13	Prevalence of female genital mutilation/cutting (FGM/C) among girls	FG	Number of girls age 0-14 years who have undergone any form of FGM/C, as reported by mothers	Total number of girls age 0-14 years	
8.14	Attitudes towards domestic violence	DV	Number of women who state that a husband/partner is justified in hitting or beating his wife in at least one of the following circumstances: (1) she goes out without telling him, (2) she neglects the children, (3) she argues with him, (4) she refuses sex with him, (5) she burns the food	Total number of women age 15-49 years	

MICS4 INDICATOR		Module <sup>18</sup>	Numerator	Denominator	MDG <sup>19</sup>
<b>9. HIV/AIDS, SEXUAL BEHAVIOUR AND ORPHANS</b>					
9.1	Comprehensive knowledge about HIV prevention	HA	Number of women age 15-49 years who correctly identify two ways of preventing HIV infection <sup>32</sup> , know that a healthy looking person can have HIV, and reject the two most common misconceptions about HIV transmission	Total number of women age 15-49 years	
9.2	Comprehensive knowledge about HIV prevention among young people	HA	Number of women age 15-24 years who correctly identify two ways of preventing HIV infection <sup>32</sup> , know that a healthy looking person can have HIV, and reject the two most common misconceptions about HIV transmission	Total number of women age 15-24 years	MDG 6.3
9.3	Knowledge of mother-to-child transmission of HIV	HA	Number of women age 15-49 years who correctly identify all three means <sup>33</sup> of mother-to-child transmission of HIV	Total number of women age 15-49 years	
9.4	Accepting attitudes towards people living with HIV	HA	Number of women age 15-49 years expressing accepting attitudes on all four questions <sup>34</sup> toward people living with HIV	Total number of women age 15-49 years who have heard of HIV	
9.5	Women who know where to be tested for HIV	HA	Number of women age 15-49 years who state knowledge of a place to be tested for HIV	Total number of women age 15-49 years	
9.6	Women who have been tested for HIV and know the results <sup>1</sup>	HA	Number of women age 15-49 years who have been tested for HIV in the 12 months preceding the survey and who know their results	Total number of women age 15-49 years	
9.8	HIV counselling during antenatal care	HA	Number of women age 15-49 years who gave birth in the 2 years preceding the survey and received antenatal care, reporting that they received counselling on HIV during antenatal care	Total number of women age 15-49 years who gave birth in the 2 years preceding the survey	
9.9	HIV testing during antenatal care	HA	Number of women age 15-49 years who gave birth in the 2 years preceding the survey and received antenatal care, reporting that they were offered and accepted an HIV test during antenatal care and received their results	Total number of women age 15-49 years who gave birth in the 2 years preceding the survey	

<sup>32</sup> Using condoms and limiting sex to one faithful, uninfected partner

<sup>33</sup> Transmission during pregnancy, during delivery, and by breastfeeding

<sup>34</sup> Women (1) who think that a female teacher with the AIDS virus should be allowed to teach in school, (2) who would buy fresh vegetables from a shopkeeper or vendor who has the AIDS virus, (3) who would not want to keep it as a secret if a family member became infected with the AIDS virus, and (4) who would be willing to care for a family member who became sick with the AIDS virus

<b>MICS4 INDICATOR</b>		<b>Module<sup>18</sup></b>	<b>Numerator</b>	<b>Denominator</b>	<b>MDG<sup>19</sup></b>
9.17	Children's living arrangements	HL	Number of children age 0-17 years not living with a biological parent	Total number of children age 0-17 years	
9.18	Prevalence of children with one or both parents dead	HL	Number of children age 0-17 years with one or both parents dead	Total number of children age 0-17 years	
9.19	School attendance of orphans	HL - ED	Number of children age 10-14 years who have lost both parents and are attending school	Total number of children age 10-14 years who have lost both parents	MDG 6.4
9.20	School attendance of non-orphans	HL - ED	Number of children age 10-14 years, whose parents are alive, who are living with one or both parents, and who are attending school	Total number of children age 10-14 years, whose parents are alive, and who are living with one or both parents	MDG 6.4

MICS4 INDICATOR		Module <sup>18</sup>	Numerator	Denominator	MDG <sup>19</sup>
<b>10. ACCESS TO MASS MEDIA AND USE OF INFORMATION/COMMUNICATION TECHNOLOGY</b>					
MT.1	Exposure to mass media	MT	Number of women age 15-49 years who, at least once a week, read a newspaper or magazine, listen to the radio, and watch television	Total number of women age 15-49 years	
MT.2	Use of computers	MT	Number of young women age 15-24 years who used a computer during the last 12 months	Total number of women age 15-24 years	
MT.3	Use of internet	MT	Number of young women age 15-24 who used the internet during the last 12 months	Total number of women age 15-24 years	

## Appendix F: Questionnaires

<b>HOUSEHOLD QUESTIONNAIRE</b>	
<b>HOUSEHOLD INFORMATION PANEL</b>	
<b>HH</b>	
HH1. Cluster number: _____	HH2. Household number: _____
HH3. Interviewer name and number: Name _____	HH4. Supervisor name and number: Name _____
HH5. Day / Month / Year of interview: _____ / _____ / _____	
HH6. AREA: Urban ..... 11 Rural Sedentary..... 21 Nomadic..... 22	HH7. ZONE: NORTH WEST ZONE ..... 1  HH7A. REGION: MAROODI JEEX/SAHIL ..... 11 AWDAL ..... 12 TOGDHEER ..... 13 SOOL ..... 14 SANAAG..... 15

WE ARE FROM MoP&D. WE ARE WORKING ON A PROJECT CONCERNED WITH FAMILY HEALTH AND EDUCATION. I WOULD LIKE TO TALK TO YOU ABOUT THESE SUBJECTS. THE INTERVIEW WILL TAKE ABOUT 20 – 30 MINUTES. ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND YOUR ANSWERS WILL NEVER BE SHARED WITH ANYONE OTHER THAN OUR PROJECT TEAM.

MAY I START NOW?

- Yes, permission is given ⇒ Go to HH18 to record the time and then begin the interview.
- No, permission is not given ⇒ Complete HH9. Discuss this result with your supervisor.

After all questionnaires for the household have been completed, fill in the following information:	
HH8. Name of head of household: _____	
HH9. Result of household interview:  Completed ..... 01 No household member or no competent respondent at home at time of visit ..... 02 Entire household absent for extended period of time..... 03 Refused ..... 04 Dwelling vacant / Address not a dwelling ..... 05 Dwelling destroyed ..... 06 Dwelling not found ..... 07 Other (specify) _____ 96	HH10. Respondent to household questionnaire:  Name: _____  Line Number: _____
HH12. Number of women age 15-49 years: _____	HH13. Number of woman's questionnaires completed: _____
HH14. Number of children under age 5: _____	HH15. Number of under-5 questionnaires completed: _____
HH16. Field edited by (Name and number): Name _____	HH17. Data entry clerk (Name and number): Name _____

HH18.  
Record the time:  
Hour..... \_\_\_\_  
Minutes..... \_\_\_\_

## HOUSEHOLD LISTING FORM

HL

FIRST, PLEASE TELL ME THE NAME OF EACH PERSON WHO USUALLY LIVES HERE, STARTING WITH THE HEAD OF THE HOUSEHOLD.

*List the head of the household in line 01. List all household members (HL2), their relationship to the household head (HL3), and their sex (HL4)*

*Then ask: ARE THERE ANY OTHERS WHO LIVE HERE, EVEN IF THEY ARE NOT AT HOME NOW?*

*If yes, complete listing for questions HL2-HL4. Then, ask questions starting with HL6 for each person at a time.*

*Use an additional questionnaire if all rows in the household listing form have been used.*

						<i>For all household members age 0-6 AND women age 14-16 or 50-51</i>		<i>For women age 15-49</i>		<i>For children age 5-14</i>		<i>For children under age 5</i>		<i>For all household members</i>		<i>For children age 0-17 years</i>			
HL1. Line number	HL2. Name	HL3. WHAT IS THE RELATION-SHIP OF (name) TO THE HEAD OF HOUSEHOLD?	HL4. Is (name) MALE OR FEMALE?	HL6. HOW OLD IS (name)?	HL5. WHAT IS (name)'S DATE OF BIRTH?	HL7.	HL8. WHO IS THE MOTHER OR PRIMARY CARETAKER OF THIS CHILD?	HL9. WHO IS THE MOTHER OR PRIMARY CARETAKER OF THIS CHILD?	HL10. DID (name) STAY HERE LAST NIGHT?	HL11. Is (name)'S NATURAL MOTHER ALIVE?	HL12. DOES (name)'S NATURAL MOTHER LIVE IN THIS HOUSEHOLD?	HL13. Is (name)'S NATURAL FATHER ALIVE?	HL14. DOES (name)'S NATURAL FATHER LIVE IN THIS HOUSEHOLD?						
		1 Male 2 Female		If age is 95 or above, record '95'	If unknown, probe for documents or use the calendar of events	Reconcile with HL6	Circle line number if woman is age 15-49	Record line number of mother/caretaker	1 Yes 2 No	1 Yes 2 No	Record line number of mother or 00 for "No"	1 Yes 2 No	Record line number of father or 00 for "No"	1 Yes 2 No	Record line number of father or 00 for "No"	1 Yes 2 No	Record line number of father or 00 for "No"		
Line	Name	Relation*	M	F	Age	Month	Year	15-49	Mother	Mother	Y N	Y N DK	Mother	Y N DK	Father				
01		0 1	1	2	---	---	---	01	---	---	1 2	1 2 8	---	1 2 8	---				
02		---	1	2	---	---	---	02	---	---	1 2	1 2 8	---	1 2 8	---				
03		---	1	2	---	---	---	03	---	---	1 2	1 2 8	---	1 2 8	---				
04		---	1	2	---	---	---	04	---	---	1 2	1 2 8	---	1 2 8	---				
05		---	1	2	---	---	---	05	---	---	1 2	1 2 8	---	1 2 8	---				
06		---	1	2	---	---	---	06	---	---	1 2	1 2 8	---	1 2 8	---				
07		---	1	2	---	---	---	07	---	---	1 2	1 2 8	---	1 2 8	---				
08		---	1	2	---	---	---	08	---	---	1 2	1 2 8	---	1 2 8	---				
09		---	1	2	---	---	---	09	---	---	1 2	1 2 8	---	1 2 8	---				

HL1. Line number	HL2. Name	HL3. WHAT IS THE RELATION -SHIP OF (name) TO THE HEAD OF HOUSE- HOLD?	HL4. Is (name) MALE OR FEMALE?	HL6. HOW OLD IS (name)?	HL5. WHAT IS (name)'S DATE OF BIRTH?	HL7.	HL8. WHO IS THE MOTHER OR PRIMARY CARETAKER OF THIS CHILD?	HL9. WHO IS THE MOTHER OR PRIMARY CARETAKER OF THIS CHILD?	HL10. DID (name) STAY HERE LAST NIGHT?	HL11. Is (name)'S NATURAL MOTHER ALIVE?	HL12. DOES (name)'S NATURAL MOTHER LIVE IN THIS HOUSEHOLD?	HL13. Is (name)'S NATURAL FATHER ALIVE?	HL14. DOES (name)'S NATURAL FATHER LIVE IN THIS HOUSEHOLD?	
			1 Male 2 Female	Record in completed years  If age is 95 or above, record '95'	If unknown, probe for documents or use the calendar of events  Reconcile with HL6  98 DK      9998 DK	Circle line number if woman is age <b>15-49</b>	Record line number of mother/ caretaker	Record line number of mother/ caretaker	1 Yes 2 No	1 Yes 2 No <sup>as</sup> HL13 8 DK <sup>as</sup> HL13	Record line number of mother or 00 for "No"	1 Yes 2 No <sup>as</sup> Next Line 8 DK <sup>as</sup> Next Line	Record line number of father or 00 for "No"	
Line	Name	Relation*	M F	Age	Month	Year	15-49	Mother	Mother	Y N	Y N DK	Mother	Y N DK	Father
10		— —	1 2	— —	— —	— — — —	10	— —	— —	1 2	1 2 8	— —	1 2 8	— —
11		— —	1 2	— —	— —	— — — —	11	— —	— —	1 2	1 2 8	— —	1 2 8	— —
12		— —	1 2	— —	— —	— — — —	12	— —	— —	1 2	1 2 8	— —	1 2 8	— —
13		— —	1 2	— —	— —	— — — —	13	— —	— —	1 2	1 2 8	— —	1 2 8	— —
14		— —	1 2	— —	— —	— — — —	14	— —	— —	1 2	1 2 8	— —	1 2 8	— —
15		— —	1 2	— —	— —	— — — —	15	— —	— —	1 2	1 2 8	— —	1 2 8	— —

*Tick here if additional questionnaire used*

*Probe for additional household members. Probe especially for any infants or small children not listed, and others who may not be members of the family (such as servants, friends) but who usually live in the household. Insert names of additional members in the household list and complete form accordingly.*

*Now for each woman age 15-49 years, write her name and line number and other identifying information in the information panel of a separate Individual Women's Questionnaire. For each child under age 5, write his/her name and line number AND the line number of his/her mother or caretaker in the information panel of a separate Under-5 Questionnaire. You should now have a separate questionnaire for each eligible woman and each child under five in the household.*

\* Codes for HL3: Relationship to head of household:

01 Head	06 Parent	11 Niece / Nephew
02 Wife / Husband	07 Parent-In-Law	12 Other relative
03 Son / Daughter	08 Brother / Sister	13 Adopted / Foster / Stepchild
04 Son-In-Law / Daughter-In-Law	09 Brother-In-Law / Sister-In-Law	14 Not related
05 Grandchild	10 Uncle / Aunt	98 Don't know

## EDUCATION

ED

For household members age 5 and above							For household members age 5-24 years						
ED1. Line number	ED2. Name and age  Copy <u>all</u> household members from Household Listing Form, HL2 and HL6	ED3. HAS (name) EVER ATTENDED FORMAL SCHOOL SUCH AS PRE- SCHOOL, PRIMARY, SECONDARY, AND HIGHER?	ED4A WHAT IS THE HIGHEST LEVEL OF SCHOOL HAS (name) ATTENDED?	ED4B WHAT IS THE HIGHEST GRADE (name) COMPLETED AT THIS LEVEL?	ED5. DURING THE (2010-2011) SCHOOL YEAR, DID (name) ATTEND FORMAL SCHOOL OR PRESCHOOL AT ANY TIME?	ED6. DURING THIS/THAT SCHOOL YEAR, WHICH LEVEL AND GRADE IS/WAS (name) ATTENDING?			ED7. DURING THE PREVIOUS SCHOOL YEAR, THAT IS (2009- 2010), DID (name) ATTEND FORMAL SCHOOL OR PRESCHOOL AT ANY TIME?	ED8. DURING THAT PREVIOUS SCHOOL YEAR, WHICH LEVEL AND GRADE DID (name) ATTEND?			
			Level: 0 Preschool 1 Primary 2 Secondary 3 Higher 8 DK	Grade: 98 DK	Level: 0 Preschool 1 Primary 2 Secondary 3 Higher 8 DK	Grade/ years of schooling: 98 DK		Level: 0 Preschool 1 Primary 2 Secondary 3 Higher 8 DK	Grade or years of schooling: 98 DK				
		1 Yes 2 No $\diamond$ Next Line 8 DK $\diamond$ Next Line		If level=0, skip to ED5	1 Yes 2 No $\diamond$ ED7			1 Yes 2 No $\diamond$ ED7					
				If less than 1 grade, enter 00.		If level=0, go to ED7							
Line	Name	Age	Y N DK	Level	Grade	Yes No	Level	Grade	Y N DK	Level	Grade		
01		— —	1 2 8	0 1 2 3 8	— —	1 2	0 1 2 3 8	— —	1 2 8	0 1 2 3 8	— —		
02		— —	1 2 8	0 1 2 3 8	— —	1 2	0 1 2 3 8	— —	1 2 8	0 1 2 3 8	— —		
03		— —	1 2 8	0 1 2 3 8	— —	1 2	0 1 2 3 8	— —	1 2 8	0 1 2 3 8	— —		
04		— —	1 2 8	0 1 2 3 8	— —	1 2	0 1 2 3 8	— —	1 2 8	0 1 2 3 8	— —		
05		— —	1 2 8	0 1 2 3 8	— —	1 2	0 1 2 3 8	— —	1 2 8	0 1 2 3 8	— —		
06		— —	1 2 8	0 1 2 3 8	— —	1 2	0 1 2 3 8	— —	1 2 8	0 1 2 3 8	— —		
07		— —	1 2 8	0 1 2 3 8	— —	1 2	0 1 2 3 8	— —	1 2 8	0 1 2 3 8	— —		
08		— —	1 2 8	0 1 2 3 8	— —	1 2	0 1 2 3 8	— —	1 2 8	0 1 2 3 8	— —		
09		— —	1 2 8	0 1 2 3 8	— —	1 2	0 1 2 3 8	— —	1 2 8	0 1 2 3 8	— —		
10		— —	1 2 8	0 1 2 3 8	— —	1 2	0 1 2 3 8	— —	1 2 8	0 1 2 3 8	— —		
11		— —	1 2 8	0 1 2 3 8	— —	1 2	0 1 2 3 8	— —	1 2 8	0 1 2 3 8	— —		
12		— —	1 2 8	0 1 2 3 8	— —	1 2	0 1 2 3 8	— —	1 2 8	0 1 2 3 8	— —		
13		— —	1 2 8	0 1 2 3 8	— —	1 2	0 1 2 3 8	— —	1 2 8	0 1 2 3 8	— —		
14		— —	1 2 8	0 1 2 3 8	— —	1 2	0 1 2 3 8	— —	1 2 8	0 1 2 3 8	— —		
15		— —	1 2 8	0 1 2 3 8	— —	1 2	0 1 2 3 8	— —	1 2 8	0 1 2 3 8	— —		

## NON-FORMAL EDUCATION

NF

NF1. Does any child aged 5-17 reside in the household?

Check household listing, column HL6, for any child 5-17 years.

- Yes.  $\Rightarrow$  Copy all names, line numbers and ages of household members age 5-17 into NF2. Then, ask questions NF3 to NF17 for each member at a time. Start by filling NF2 for all the household members across the columns.
- No.  $\Rightarrow$  Go to next module.

	HH member #1	HH member #2	HH member #3	HH member #4	HH member #5
NF2. Household member's:					
Line number (HL1)	— —	— —	— —	— —	— —
Name (HL2)	_____	_____	_____	_____	_____
Age (HL6)	— —	— —	— —	— —	— —
NF3. HAS (name) EVER ATTENDED NON-FORMAL EDUCATION SUCH AS KORANIC SCHOOL, ALTERNATIVE BASIC EDUCATION, VOCATIONAL TRAINING AND NON-FORMAL EDUCATION FOR YOUTH?	Yes ..... 1 No ..... 2 DK ..... 8  <i>If "No" or "DK", go to NF3 for next member. If no more members, go to next module</i>	Yes ..... 1 No ..... 2 DK ..... 8  <i>If "No" or "DK", go to NF3 for next member. If no more members, go to next module</i>	Yes ..... 1 No ..... 2 DK ..... 8  <i>If "No" or "DK", go to NF3 for next member. If no more members, go to next module</i>	Yes ..... 1 No ..... 2 DK ..... 8  <i>If "No" or "DK", go to NF3 for next member. If no more members, go to next module</i>	Yes ..... 1 No ..... 2 DK ..... 8  <i>If "No" or "DK", go to NF3 in first column of additional questionnaire for next member. If no more members, go to next module</i>
NF4. HAS (name) EVER ATTENDED KORANIC SCHOOL?	Yes ..... 1 No ..... 2 DK ..... 8  <i>If "No" or "DK", go to NF7</i>	Yes ..... 1 No ..... 2 DK ..... 8  <i>If "No" or "DK", go to NF7</i>	Yes ..... 1 No ..... 2 DK ..... 8  <i>If "No" or "DK", go to NF7</i>	Yes ..... 1 No ..... 2 DK ..... 8  <i>If "No" or "DK", go to NF7</i>	Yes ..... 1 No ..... 2 DK ..... 8  <i>If "No" or "DK", go to NF7</i>
NF5. IN THIS KORANIC SCHOOL, IS/WAS (name) TAUGHT OTHER SUBJECTS THAN THE KORAN?	Yes ..... 1 No ..... 2 DK ..... 8				
Probe: A KORANIC SCHOOL TEACHING OTHER SUBJECTS LIKE READING AND WRITING ARABIC, SOMALI, ENGLISH OR MATHEMATICS, IS SOMETIMES CALLED AN INTEGRATED KORANIC SCHOOL.					

NF6. DURING THE CURRENT 2010-2011 SCHOOL YEAR, DID (name) ATTEND KORANIC SCHOOL?	Yes ..... 1 No ..... 2 DK ..... 8				
NF7. HAS (name) EVER ATTENDED ALTERNATIVE BASIC EDUCATION? THIS EDUCATION IS SOMETIMES CALLED ABE CLASSES.	Yes ..... 1 No ..... 2 DK ..... 8 <i>If "No" or "DK", go to NF10</i>	Yes ..... 1 No ..... 2 DK ..... 8 <i>If "No" or "DK", go to NF10</i>	Yes ..... 1 No ..... 2 DK ..... 8 <i>If "No" or "DK", go to NF10</i>	Yes ..... 1 No ..... 2 DK ..... 8 <i>If "No" or "DK", go to NF10</i>	Yes ..... 1 No ..... 2 DK ..... 8 <i>If "No" or "DK", go to NF10</i>
NF8. HAS (name) COMPLETED THE ALTERNATIVE BASIC EDUCATION?	Yes ..... 1 No ..... 2 DK ..... 8				
NF9. DURING THE CURRENT 2010-2011 SCHOOL YEAR, DID (name) ATTEND THIS ALTERNATIVE BASIC EDUCATION/ABE?	Yes ..... 1 No ..... 2 DK ..... 8				
NF10. HAS (name) EVER ATTENDED NON-FORMAL EDUCATION FOR YOUTH PROGRAMME?	Yes ..... 1 No ..... 2 DK ..... 8 <i>If "No" or "DK", go to NF13</i>	Yes ..... 1 No ..... 2 DK ..... 8 <i>If "No" or "DK", go to NF13</i>	Yes ..... 1 No ..... 2 DK ..... 8 <i>If "No" or "DK", go to NF13</i>	Yes ..... 1 No ..... 2 DK ..... 8 <i>If "No" or "DK", go to NF13</i>	Yes ..... 1 No ..... 2 DK ..... 8 <i>If "No" or "DK", go to NF13</i>
NF11. HAS (NAME) COMPLETED THE EDUCATION FOR YOUTH PROGRAMME?	Yes ..... 1 No ..... 2 DK ..... 8				
NF12. DURING THE CURRENT 2010-2011 SCHOOL YEAR, DID (name) ATTEND THIS NON-FORMAL EDUCATION FOR YOUTH PROGRAMME?	Yes ..... 1 No ..... 2 DK ..... 8				
NF13. HAS (name) EVER ATTENDED VOCATIONAL TRAINING CLASSES?	Yes ..... 1 No ..... 2 DK ..... 8 <i>If "No" or "DK", go to NF16.</i>	Yes ..... 1 No ..... 2 DK ..... 8 <i>If "No" or "DK", go to NF16.</i>	Yes ..... 1 No ..... 2 DK ..... 8 <i>If "No" or "DK", go to NF16.</i>	Yes ..... 1 No ..... 2 DK ..... 8 <i>If "No" or "DK", go to NF16.</i>	Yes ..... 1 No ..... 2 DK ..... 8 <i>If "No" or "DK", go to NF16.</i>

NF 14. HAS (name) COMPLETED THE VOCATIONAL TRAINING CLASSES?	Yes ..... 1 No ..... 2 DK ..... 8				
NF15. DURING THE CURRENT 2010-2011 SCHOOL YEAR, DID (name) ATTEND THIS VOCATIONAL TRAINING CLASSES?	Yes ..... 1 No ..... 2 DK ..... 8				
NF16. Check NF4, NF7, NF10, and NF13.  <i>If 'yes' to at least one of them, go to NF17.</i>  <i>If no or DK to <u>all four</u>, probe:</i>  JUST TO CONFIRM, YOU HAVE MENTIONED THAT (name) HAS ATTENDED NON-FORMAL EDUCATION, BUT NEVER KORANIC SCHOOL, ALTERNATIVE BASIC EDUCATION, NFE FOR YOUTH, AND VOCATIONAL TRAINING. IS THAT CORRECT?	Yes <input type="checkbox"/>  <i>If yes, probe and write name/details of other NFE here and check with your supervisor:</i>  _____	Yes <input type="checkbox"/>  <i>If yes, probe and write name/details of other NFE here and check with your supervisor:</i>  _____	Yes <input type="checkbox"/>  <i>If yes, probe and write name/details of other NFE here and check with your supervisor:</i>  _____	Yes <input type="checkbox"/>  <i>If yes, probe and write name/details of other NFE here and check with your supervisor:</i>  _____	Yes <input type="checkbox"/>  <i>If yes, probe and write name/details of other NFE here and check with your supervisor:</i>  _____
NF17.	<i>Go back to NF3 for next member. If no more members, go to next module</i>	<i>Go back to NF3 for next member. If no more members, go to next module</i>	<i>Go back to NF3 for next member. If no more members, go to next module</i>	<i>Go back to NF3 for next member. If no more members, go to next module</i>	<i>Go back to NF3 in first column of additional questionnaire for next member. If no more members, go to next module</i>
	<i>Tick here if additional questionnaire used</i> <input type="checkbox"/>				

WATER AND SANITATION		WS
WS1. WHAT IS THE <b>MAIN</b> SOURCE OF DRINKING WATER FOR MEMBERS OF YOUR HOUSEHOLD?	Piped water Piped into dwelling.....11 Piped into compound, yard or plot.....12 Piped to neighbour .....13 Public tap / standpipe / kiosk .....14 Tube Well, Borehole .....21 Dug well Protected well .....31 Unprotected well.....32 Water from spring Protected spring .....41 Unprotected spring .....42 Rainwater collection Roof Top .....52 Berkad .....53 Rain water catchment (Bally).....54 Tanker-truck .....61 Cart with small tank / drum .....71 Surface water (river, stream, dam, lake, pond, canal, irrigation channel, hole in river bed).....81 Bottled water.....91 Other ( <i>specify</i> ) .....96	11⇒WS6 12⇒WS6 13⇒WS6 14⇒WS3 21⇒WS3 31⇒WS3 32⇒WS3 41⇒WS3 42⇒WS3 52⇒WS3 53⇒WS3 54⇒WS3 61⇒WS3 71⇒WS3 81⇒WS3 96⇒WS3
WS2. WHAT IS THE <b>MAIN</b> SOURCE OF WATER USED BY YOUR HOUSEHOLD FOR OTHER PURPOSES SUCH AS COOKING AND HAND WASHING?	Piped water Piped into dwelling.....11 Piped into compound, yard or plot.....12 Piped to neighbour .....13 Public tap / standpipe / kiosk .....14 Tube Well, Borehole .....21 Dug well Protected well .....31 Unprotected well.....32 Water from spring Protected spring .....41 Unprotected spring .....42 Rainwater collection Roof Top .....52 Berkad .....53 Rain water catchment (Bally).....54  Tanker-truck .....61 Cart with small tank / drum .....71 Surface water (river, stream, dam, lake, pond, canal, irrigation channel, hole in river bed).....81  Other ( <i>specify</i> ) .....96	11⇒WS6 12⇒WS6 13⇒WS6  52 53 54  61 71  81  96
WS3. WHERE IS THAT WATER SOURCE LOCATED?	In own dwelling.....1 In own yard / plot .....2 Elsewhere .....3	1⇒WS6 2⇒WS6
WS4. HOW LONG DOES IT TAKE TO GO THERE, GET WATER, AND COME BACK?	Number of minutes .....  DK.....998	

<p>WS5. WHO <b>USUALLY</b> GOES TO THIS SOURCE TO COLLECT THE WATER FOR YOUR HOUSEHOLD?</p> <p><i>Probe:</i> IS THIS PERSON UNDER AGE 15? WHAT SEX?</p>	<p>Adult woman (age 15+ years) ..... 1            Adult man (age 15+ years) ..... 2            Female child (under 15) ..... 3            Male child (under 15) ..... 4            DK ..... 8</p>	
<p>WS6. DO YOU DO ANYTHING TO THE WATER TO MAKE IT SAFER TO DRINK?</p>	<p>Yes ..... 1            No ..... 2            DK ..... 8</p>	<p>2⇒WS8 8⇒WS8</p>
<p>WS7. WHAT DO YOU USUALLY DO TO MAKE THE WATER SAFER TO DRINK?</p> <p><i>Probe:</i> ANYTHING ELSE?</p> <p><i>Record all items mentioned.</i></p>	<p>Boil ..... A            Add bleach / chlorine ..... B            Strain it through a cloth ..... C            Use water filter (ceramic, sand, composite, etc.) ..... D            Solar disinfection ..... E            Let it stand and settle ..... F            Wash hands before collecting water ..... G            Store drinking water in a clean container with cover ..... H            Use a separate clean cup with a long handle for taking water out of the container ..... I            Keep animals away from the container ..... J            Other (specify) ..... X            DK ..... Z</p>	
<p>WS8. WHAT KIND OF TOILET FACILITY DO MEMBERS OF YOUR HOUSEHOLD USUALLY USE?</p> <p><i>If “flush” or “pour flush”, probe: WHERE DOES IT FLUSH TO?</i></p> <p><i>If necessary, ask permission to observe the facility.</i></p>	<p>Flush / Pour flush            Flush to piped sewer system ..... 11            Flush to septic tank ..... 12            Flush to pit (latrine) ..... 13            Flush to somewhere else ..... 14            Flush to unknown place / Not sure / DK where ..... 15            Pit latrine            Ventilated Improved Pit latrine (VIP) ..... 21            Pit latrine with slab ..... 22            Pit latrine without slab / Open pit ..... 23            Bucket ..... 41            No facility, Bush, Field, Beach ..... 95            Other (specify) ..... 96</p>	<p>95⇒Next MODULE</p>
<p>WS9. DO YOU SHARE THIS FACILITY WITH OTHERS WHO ARE NOT MEMBERS OF YOUR HOUSEHOLD?</p>	<p>Yes ..... 1            No ..... 2</p>	<p>2⇒Next Module</p>
<p>WS10. DO YOU SHARE THIS FACILITY ONLY WITH MEMBERS OF OTHER HOUSEHOLDS THAT YOU KNOW, OR IS THE FACILITY OPEN TO THE USE OF THE GENERAL PUBLIC?</p>	<p>Other households only (not public) ..... 1            Public facility ..... 2</p>	<p>2⇒Next Module</p>
<p>WS11. HOW MANY HOUSEHOLDS IN TOTAL USE THIS TOILET FACILITY, INCLUDING YOUR OWN HOUSEHOLD?</p>	<p>Number of households (if less than 10) 0 ____            Ten or more households ..... 10            DK ..... 98</p>	

HOUSEHOLD CHARACTERISTICS		HC
HC2. HOW MANY ROOMS IN THIS HOUSEHOLD ARE USED FOR SLEEPING?	Number of rooms .....	
HC3. Main material of the dwelling floor.  <i>Record observation.</i>	Natural floor Earth / Sand ..... 11 Dung ..... 12 Rudimentary floor Wood planks ..... 21 Palm / Bamboo ..... 22 Finished floor Parquet or polished wood ..... 31 Vinyl or asphalt strips ..... 32 Ceramic tiles ..... 33 Cement ..... 34 Carpet (Wall to Wall) ..... 35  Other (specify) ..... 96	
HC4. Main material of the roof.  <i>Record observation.</i>	Natural roofing No Roof ..... 11 Thatch / Palm leaf ..... 12 Sod (Mud & Grass) ..... 13 Rudimentary Roofing Rustic mat ..... 21 Palm / Bamboo ..... 22 Wood planks ..... 23 Cardboard ..... 24 Sacks/Plastic Sheets/Cloth ..... 25 Canvas/Tent ..... 26 Finished roofing Metal/Corrugated Iron Sheets ..... 31 Wood ..... 32 Corrugated cement /Asbestos/ Cement fibre ..... 33 Ceramic tiles ..... 34 Cement ..... 35  Other (specify) ..... 96	
HC5. Main material of the exterior walls.  <i>Record observation.</i>	Natural walls No walls ..... 11 Sticks / Palm / Trunks ..... 12 Mud ..... 13 Rudimentary walls Bamboo/Sticks with mud ..... 21 Stone with mud ..... 22 Uncovered adobe ..... 23 Plywood ..... 24 Cardboard/Carton/Tin/Plastic/Sacks/ Cloth ..... 25 Reused wood ..... 26 Canvas/Tent ..... 27 Finished walls Cement ..... 31 Stone with lime / cement ..... 32 Bricks ..... 33 Cement blocks ..... 34 Covered adobe ..... 35 Wood planks / shingles ..... 36  Other (specify) ..... 96	

HC6. WHAT TYPE OF FUEL DOES YOUR HOUSEHOLD <b>MAINLY</b> USE FOR COOKING?	Electricity ..... 01 Liquefied Petroleum Gas (LPG) ..... 02 Kerosene ..... 05  Charcoal ..... 07 Wood ..... 08 Straw / Shrubs / Grass ..... 09 Animal dung ..... 10 Agricultural crop residue ..... 11  No food cooked in household ..... 95	01⇒HC8 02⇒HC8 05⇒HC8  95⇒HC8
HC7. IS THE COOKING USUALLY DONE IN THE HOUSE, IN A SEPARATE BUILDING, OR OUTDOORS?  <i>If 'In the house', probe: IS IT DONE IN A SEPARATE ROOM USED AS A KITCHEN?</i>	In the house In a separate room used as kitchen ..... 1 Elsewhere in the house ..... 2 In a separate building ..... 3 Outdoors ..... 4  Other (specify) ..... 6	
HC8. DOES YOUR HOUSEHOLD HAVE:  [A] ELECTRICITY? [B] A RADIO? [C] A TELEVISION? [D] A NON-MOBILE TELEPHONE? [E] A REFRIGERATOR? [F] A CHARCOAL STOVE/JIKO? [G] A WHEEL BARROW? [H] A MAT? [I] A VACUUM FLASK? [J] A KEROSENE LAMP? [K] A FAN? [L] A BED? [M] A SOFA? [N] A SOMALI STOOL? [O] A SITTING CUSHION/PILLOW?	Yes      No  Electricity ..... 1      2 Radio ..... 1      2 Television ..... 1      2 Non-mobile telephone ..... 1      2 Refrigerator ..... 1      2 Charcoal stove/Jiko ..... 1      2 Wheel barrow ..... 1      2 Mat ..... 1      2 Vacuum Flask ..... 1      2 Kerosene lamp ..... 1      2 Fan ..... 1      2 Bed ..... 1      2 Sofa ..... 1      2 Somali Stool ..... 1      2 Sitting Cushion/Pillow ..... 1      2	

HC9. DOES ANY MEMBER OF YOUR HOUSEHOLD OWN:  [A] A WATCH?  [B] A MOBILE TELEPHONE?  [C] A BICYCLE?  [D] A MOTORCYCLE OR SCOOTER?  [E] AN ANIMAL-DRAWN CART?  [F] A CAR OR TRUCK?  [G] A BOAT WITH A MOTOR?	Yes	No	
	Watch .....	1	2
	Mobile telephone .....	1	2
	Bicycle .....	1	2
	Motorcycle / Scooter .....	1	2
	Animal drawn-cart .....	1	2
	Car / Truck .....	1	2
HC10. DO YOU OR SOMEONE LIVING IN THIS HOUSEHOLD OWN THIS DWELLING?  <i>If "No", then ask:</i> DO YOU RENT THIS DWELLING FROM SOMEONE NOT LIVING IN THIS HOUSEHOLD?  <i>If "Rented from someone else", circle "2". For other responses, circle "6".</i>	Own .....	1	
	Rent .....	2	
	Other (Not owned or rented) .....	6	
HC11. DOES ANY MEMBER OF THIS HOUSEHOLD OWN ANY LAND THAT CAN BE USED FOR AGRICULTURE?	Yes .....	1	
	No .....	2	2⇒HC13
HC12. HOW MANY HECTARES OF AGRICULTURAL LAND DO MEMBERS OF THIS HOUSEHOLD OWN?  <i>If number of hectares is unknown ask:</i> DO YOU KNOW HOW MANY (DAARB, JIBAILE, QOODI)?  <i>Record number in measurement used by respondent and circle appropriate code</i>  <i>If less than 1, record "00".</i> <i>If 95 or more, record '95'.</i> <i>If unknown, record '98'.</i>	Hectares .....	1	
	Daarb .....	2	
	Jibaile .....	3	
	Qoodi .....	4	
HC13. DOES THIS HOUSEHOLD OWN ANY LIVESTOCK, HERDS, OTHER FARM ANIMALS, OR POULTRY?	Yes .....	1	
	No .....	2	2⇒ HC15

<p>HC14. HOW MANY OF THE FOLLOWING ANIMALS DOES THIS HOUSEHOLD HAVE?</p> <p>[A] CATTLE, MILK COWS, OR BULLS?</p> <p>[B] HORSES, DONKEYS, OR MULES?</p> <p>[C] GOATS?</p> <p>[D] SHEEP?</p> <p>[E] CHICKENS?</p> <p>[G] CAMELS?</p> <p><i>If none, record '00'. If 95 or more, record '95'. If unknown, record '98'.</i></p>	<p>Cattle, milk cows, or bulls ..... ____</p> <p>Horses, donkeys, or mules ..... ____</p> <p>Goats..... ____</p> <p>Sheep..... ____</p> <p>Chickens ..... ____</p> <p>Camels ..... ____</p>	
<p>HC15. DOES ANY MEMBER OF THIS HOUSEHOLD HAVE A BANK ACCOUNT?</p>	<p>Yes ..... 1</p> <p>No..... 2</p>	

INSECTICIDE TREATED NETS				TN
TN1. DOES YOUR HOUSEHOLD HAVE ANY MOSQUITO NETS THAT CAN BE USED WHILE SLEEPING?		Yes ..... 1 No ..... 2	2⇒Next Module	
TN2. HOW MANY MOSQUITO NETS DOES YOUR HOUSEHOLD HAVE?		Number of nets..... ____		
TN3. Ask the respondent to show you the nets in the household. If more than 3 nets, use additional questionnaire(s).				
	1 <sup>st</sup> Net	2 <sup>nd</sup> Net	3 <sup>rd</sup> Net	
TN4. Mosquito net observed?	Observed ..... 1 Not observed ..... 2	Observed ..... 1 Not observed ..... 2	Observed ..... 1 Not observed ..... 2	
TN5. Observe or ask the brand/type of mosquito net  <i>If brand is unknown and you cannot observe the net, show pictures of typical net types/brands to respondent</i>	Long-lasting treated nets Permnet ..... 11 Netprotect ..... 12 Olyset ..... 13 Badbaado ..... 14 Daawa ..... 15 Other (specify) ..... 16 DK brand ..... 18  Pre-treated nets Other(specify) ..... 26 DK brand ..... 28  Other net Other (specify) ..... 31  DK brand / type ..... 98	Long-lasting treated nets Permnet ..... 11 Netprotect ..... 12 Olyset ..... 13 Badbaado ..... 14 Daawa ..... 15 Other (specify) ..... 16 DK brand ..... 18  Pre-treated nets Other(specify) ..... 26 DK brand ..... 28  Other net Other (specify) ..... 31  DK brand / type ..... 98	Long-lasting treated nets Permnet ..... 11 Netprotect ..... 12 Olyset ..... 13 Badbaado ..... 14 Daawa ..... 15 Other (specify) ..... 16 DK brand ..... 18  Pre-treated nets Other(specify) ..... 26 DK brand ..... 28  Other net Other (specify) ..... 31  DK brand / type ..... 98	
TN6. HOW MANY MONTHS AGO DID YOUR HOUSEHOLD GET THE MOSQUITO NET?  <i>If less than one month, record "00"</i>	Months ago ..... ____ More than 36 mo. ago... 95 DK / Not sure ..... 98	Months ago ..... ____ More than 36 mo. ago ... 95 DK / Not sure ..... 98	Months ago ..... ____ More than 36 mo. ago... 95 DK / Not sure ..... 98	
TN7. Check TN5 for type of net	<input type="checkbox"/> Long-lasting (11-18) ⇒ TN11  <input type="checkbox"/> Pre-treated (26-28) ⇒ TN9  <input type="checkbox"/> Else ⇒ Continue	<input type="checkbox"/> Long-lasting (11-18) ⇒ TN11  <input type="checkbox"/> Pre-treated (26-28) ⇒ TN9  <input type="checkbox"/> Else ⇒ Continue	<input type="checkbox"/> Long-lasting (11-18) ⇒ TN11  <input type="checkbox"/> Pre-treated (26-28) ⇒ TN9  <input type="checkbox"/> Else ⇒ Continue	
TN8. WHEN YOU GOT THE NET, WAS IT ALREADY TREATED WITH AN INSECTICIDE TO KILL OR REPEL MOSQUITOES?	Yes ..... 1 No ..... 2  DK / Not sure ..... 8	Yes ..... 1 No ..... 2  DK / Not sure ..... 8	Yes ..... 1 No ..... 2  DK / Not sure ..... 8	Yes ..... 1 No ..... 2  DK / Not sure ..... 8
TN9. SINCE YOU GOT THE NET, WAS IT EVER SOAKED OR DIPPED IN A LIQUID TO KILL OR REPEL MOSQUITOES?	Yes ..... 1 No ..... 2 ⇒ TN11 DK / Not sure ..... 8 ⇒ TN11	Yes ..... 1 No ..... 2 ⇒ TN11 DK / Not sure ..... 8 ⇒ TN11	Yes ..... 1 No ..... 2 ⇒ TN11 DK / Not sure ..... 8 ⇒ TN11	Yes ..... 1 No ..... 2 ⇒ TN11 DK / Not sure ..... 8 ⇒ TN11
TN10. HOW MANY MONTHS AGO WAS THE NET LAST SOAKED OR DIPPED?  <i>If less than one month, record "00"</i>	Months ago ..... ____ More than 24 mo. ago... 95 DK / Not sure ..... 98	Months ago ..... ____ More than 24 mo. ago ... 95 DK / Not sure ..... 98	Months ago ..... ____ More than 24 mo. ago... 95 DK / Not sure ..... 98	

<b>TN11. DID ANYONE SLEEP UNDER THIS MOSQUITO NET LAST NIGHT?</b>	Yes.....1 No.....2 ⇒ TN13 DK / Not sure .....8 ⇒ TN13	Yes.....1 No.....2 ⇒ TN13 DK / Not sure.....8 ⇒ TN13	Yes .....1 No .....2 ⇒ TN13 DK / Not sure .....8 ⇒ TN13
<b>TN12. WHO SLEPT UNDER THIS MOSQUITO NET LAST NIGHT?</b>  <i>Record the person's line number from the household listing form</i>  <i>If someone not in the household list slept under the mosquito net, record "00"</i>	Name _____ Line number....._____  Name _____ Line number....._____  Name _____ Line number....._____  Name _____ Line number....._____  Name _____ Line number....._____	Name _____ Line number....._____  Name _____ Line number....._____  Name _____ Line number....._____  Name _____ Line number....._____	Name _____ Line number....._____  Name _____ Line number....._____  Name _____ Line number....._____  Name _____ Line number....._____
<b>TN13.</b>	<i>Go back to TN4 for next net. If no more nets, go to next module</i>	<i>Go back to TN4 for next net. If no more nets, go to next module</i>	<i>Go back to TN4 in first column of a new questionnaire for next net. If no more nets, go to next module</i>
			<i>Tick here if additional questionnaire used</i> <input type="checkbox"/>

<b>INDOOR RESIDUAL SPRAYING</b>		<b>IR</b>
IR1. AT ANY TIME IN THE PAST 12 MONTHS, HAS ANYONE COME INTO YOUR DWELLING TO SPRAY THE INTERIOR WALLS AGAINST MOSQUITOES?	Yes ..... 1 No ..... 2 DK ..... 8	2⇒Next Module 8⇒Next Module
IR2. WHO SPRAYED THE DWELLING?  <i>Circle all that apply.</i>	Government worker / program ..... A Private company ..... B Non-governmental organization ..... C  Other ( <i>specify</i> ) ..... X  DK ..... Z	

## CHILD LABOUR

CL

To be administered for children in the household age 5-17 years. For household members below age 5 or above age 17, fill-up CL2 and leave the rest of the row blank.

NOW I WOULD LIKE TO ASK ABOUT ANY WORK CHILDREN IN THIS HOUSEHOLD MAY DO.

CL1. Line number	CL2. Name and Age  <i>Copy all household members from Household Listing Form, HL2 and HL6</i>	CL3. DURING THE PAST WEEK, DID (name) DO ANY KIND OF WORK FOR SOMEONE WHO IS NOT A MEMBER OF THIS HOUSEHOLD?  <i>If yes: FOR PAY IN CASH OR KIND?</i>	CL4. SINCE LAST (day of the week), ABOUT HOW MANY HOURS DID HE/SHE DO THIS WORK FOR SOMEONE WHO IS NOT A MEMBER OF THIS HOUSEHOLD?	CL5. DURING THE PAST WEEK, DID (name) FETCH WATER OR COLLECT FIREWOOD FOR HOUSEHOLD USE?	CL6. SINCE LAST (day of the week), ABOUT HOW MANY HOURS DID HE/SHE FETCH WATER OR COLLECT FIREWOOD FOR HOUSEHOLD USE?	CL7. DURING THE PAST WEEK, DID (name) DO ANY PAID OR UNPAID WORK ON A FAMILY FARM OR HERDING LIVESTOCK OR FISHING OR IN A FAMILY BUSINESS OR SELLING GOODS IN THE STREET?  <i>Include work for a business run by the child, alone or with one or more partners.</i>	CL8. SINCE LAST (day of the week), ABOUT HOW MANY HOURS DID HE/SHE DO THIS WORK FOR HIS/HER FAMILY OR HIMSELF/ HERSELF?	CL9. DURING THE PAST WEEK, DID (name) HELP WITH HOUSEHOLD CHORES SUCH AS SHOPPING, CLEANING, WASHING CLOTHES, COOKING; OR CARING FOR CHILDREN, OLD OR SICK PEOPLE?	CL10. SINCE LAST (day of the week), ABOUT HOW MANY HOURS DID HE/SHE SPEND DOING THESE CHORES?
				1 Yes 2 No ⇒ CL7				1 Yes 2 No ⇒ CL9	
Line	Name Age	Yes Paid No Unpaid	Number of hours	Yes Paid No Unpaid	Number of hours	Yes Paid No Unpaid	Number of hours	Yes Paid No Unpaid	Number of hours
01	___	1 2 3	______	1 2	______	1 2	______	1 2	______
02	___	1 2 3	______	1 2	______	1 2	______	1 2	______
03	___	1 2 3	______	1 2	______	1 2	______	1 2	______
04	___	1 2 3	______	1 2	______	1 2	______	1 2	______
05	___	1 2 3	______	1 2	______	1 2	______	1 2	______
06	___	1 2 3	______	1 2	______	1 2	______	1 2	______
07	___	1 2 3	______	1 2	______	1 2	______	1 2	______
08	___	1 2 3	______	1 2	______	1 2	______	1 2	______
09	___	1 2 3	______	1 2	______	1 2	______	1 2	______
10	___	1 2 3	______	1 2	______	1 2	______	1 2	______
11	___	1 2 3	______	1 2	______	1 2	______	1 2	______
12	___	1 2 3	______	1 2	______	1 2	______	1 2	______
13	___	1 2 3	______	1 2	______	1 2	______	1 2	______
14	___	1 2 3	______	1 2	______	1 2	______	1 2	______
15	___	1 2 3	______	1 2	______	1 2	______	1 2	______

**Table 1: Children Aged 2-14 Years Eligible for Child Discipline Questions**

- List each of the children aged 2-14 years below in the order they appear in the Household Listing Form. Do not include other household members outside of the age range 2-14 years.
- Record the line number, name, sex, and age for each child.
- Then record the total number of children aged 2-14 in the box provided (CD6).

CD1. Rank number	CD2. Line number from HL1	CD3. Name from HL2	CD4. Sex from HL4	CD5. Age from HL6	
Rank	Line	Name	M	F	Age
1	— —		1	2	— —
2	— —		1	2	— —
3	— —		1	2	— —
4	— —		1	2	— —
5	— —		1	2	— —
6	— —		1	2	— —
7	— —		1	2	— —
8	— —		1	2	— —
CD6.	Total children age 2-14 years				— —

- If there is only one child age 2-14 years in the household, then skip table 2 and go to CD8; write down '1' and continue with CD9

**Table 2: Selection of Random Child for Child Discipline Questions**

- Use Table 2 to select one child between the ages of 2 and 14 years, if there is more than one child in that age range in the household.
- Check the last digit of the household number (HH2) from the cover page. This is the number of the row you should go to in the table below.
- Check the total number of eligible children (2-14) in CD6 above. This is the number of the column you should go to.
- Find the box where the row and the column meet and circle the number that appears in the box. This is the rank number of the child (CD1) about whom the questions will be asked.

CD7. Last digit of household number (HH2)	Total Number of Eligible Children in the Household (CD6)							
	1	2	3	4	5	6	7	8+
0	1	2	2	4	3	6	5	4
1	1	1	3	1	4	1	6	5
2	1	2	1	2	5	2	7	6
3	1	1	2	3	1	3	1	7
4	1	2	3	4	2	4	2	8
5	1	1	1	1	3	5	3	1
6	1	2	2	2	4	6	4	2
7	1	1	3	3	5	1	5	3
8	1	2	1	4	1	2	6	4
9	1	1	2	1	2	3	7	5

CD8. Record the rank number of the selected child ..... —

<p>CD9. Write the name and line number of the child selected for the module from CD3 and CD2, based on the rank number in CD8.</p>	<p>Name _____ Line number .....</p>	
<p>CD10. ADULTS USE CERTAIN WAYS TO TEACH CHILDREN THE RIGHT BEHAVIOUR OR TO ADDRESS A BEHAVIOUR PROBLEM. I WILL READ VARIOUS METHODS THAT ARE USED AND I WANT YOU TO TELL ME IF <u>YOU OR ANYONE ELSE IN YOUR HOUSEHOLD HAS USED THIS METHOD WITH (name) IN THE PAST MONTH.</u></p>		
<p>CD11. TOOK AWAY PRIVILEGES, FORBADE SOMETHING (name) LIKED OR DID NOT ALLOW HIM/HER TO LEAVE HOUSE.</p>	<p>Yes ..... 1 No ..... 2</p>	
<p>CD12. EXPLAINED WHY (name)'S BEHAVIOR WAS WRONG.</p>	<p>Yes ..... 1 No ..... 2</p>	
<p>CD13. SHOOK HIM/HER.</p>	<p>Yes ..... 1 No ..... 2</p>	
<p>CD14. SHOUTED, YELLED AT OR SCREAMED AT HIM/HER.</p>	<p>Yes ..... 1 No ..... 2</p>	
<p>CD15. GAVE HIM/HER SOMETHING ELSE TO DO.</p>	<p>Yes ..... 1 No ..... 2</p>	
<p>CD16. SPANKED, HIT OR SLAPPED HIM/HER ON THE BOTTOM WITH BARE HAND.</p>	<p>Yes ..... 1 No ..... 2</p>	
<p>CD17. HIT HIM/HER ON THE BOTTOM OR ELSEWHERE ON THE BODY WITH SOMETHING LIKE A BELT, HAIRBRUSH, STICK OR OTHER HARD OBJECT.</p>	<p>Yes ..... 1 No ..... 2</p>	
<p>CD18. CALLED HIM/HER DUMB, LAZY, OR ANOTHER NAME LIKE THAT.</p>	<p>Yes ..... 1 No ..... 2</p>	
<p>CD19. HIT OR SLAPPED HIM/HER ON THE FACE, HEAD OR EARS.</p>	<p>Yes ..... 1 No ..... 2</p>	
<p>CD20. HIT OR SLAPPED HIM/HER ON THE HAND, ARM, OR LEG.</p>	<p>Yes ..... 1 No ..... 2</p>	
<p>CD21. BEAT HIM/HER UP, THAT IS HIT HIM/HER OVER AND OVER AS HARD AS ONE COULD.</p>	<p>Yes ..... 1 No ..... 2</p>	
<p>CD22. DO YOU BELIEVE THAT IN ORDER TO BRING UP, RAISE, OR EDUCATE A CHILD PROPERLY, THE CHILD NEEDS TO BE PHYSICALLY PUNISHED?</p>	<p>Yes ..... 1 No ..... 2 Don't know / No opinion ..... 8</p>	

<b>HANDWASHING</b>		<b>HW</b>
HW1. PLEASE SHOW ME WHERE MEMBERS OF YOUR HOUSEHOLD MOST OFTEN WASH THEIR HANDS.	Observed.....1  Not observed Not in dwelling / plot / yard .....2 No permission to see.....3 Other reason.....6	2⇒HW4 3⇒HW4 6⇒HW4
HW2. <i>Observe presence of water at the specific place for hand washing</i>  <i>Verify by checking the tap/pump, or basin, bucket, water container or similar objects for presence of water</i>	Water is available.....1  Water is not available.....2	
HW3. <i>Record if soap or detergent is present at the specific place for hand washing.</i>  <i>Circle all that apply.</i>  <i>Skip to HH19 if any soap or detergent code (A, B, C or D) is circled. If "None" (Y) is circled, continue with HW4.</i>	Bar soap .....A  Detergent (Powder / Liquid / Paste) .....B  Liquid soap .....C  Ash / Mud / Sand.....D  None .....Y	A⇒HH19 B⇒HH19 C⇒HH19 D⇒HH19
HW4. DO YOU HAVE ANY SOAP, DETERGENT OR ASH IN YOUR HOUSEHOLD FOR WASHING HANDS?	Yes .....1  No.....2	2⇒HH19
HW5. COULD YOU PLEASE SHOW IT TO ME?  <i>Record observation. Circle all that apply</i>	Bar soap .....A  Detergent (Powder / Liquid / Paste) .....B  Liquid soap .....C  Ash / Mud / Sand.....D  Not able / Does not want to show .....Y	

HH19. Record the time.

Hour and minutes ..... : \_\_\_\_

HH20. Thank the respondent for his/her cooperation and check the Household Listing Form:

- A separate Questionnaire for Individual Women has been issued for each woman age 15-49 years in the household list (HL7)
- A separate Questionnaire for Children Under Five has been issued for each child under age 5 years in the household list (HL8)

*Return to the cover page and make sure that all information is entered, including the number of eligible women (HH12 and under-5s (HH14)*

*Make arrangements for the administration of the remaining questionnaire(s) in this household.*

**Interviewer's Observations**

**Field Editor's Observations**

**Supervisor's Observations**

<b>WOMAN'S INFORMATION PANEL</b>		<b>WM</b>
<p><i>This questionnaire is to be administered to all women age 15 through 49 (see column HL7 of Household Listing Form). Fill in one form for each eligible woman</i></p>		
WM1. Cluster number: ____-____-____	WM2. Household number: ____-____-____	
WM3. Woman's name: Name _____	WM4. Woman's line number: ____-____-____	
WM5. Interviewer name and number: Name _____-____-____	WM6. Day / Month / Year of interview: ____ / ____ / ____	

*Repeat greeting if not already read to this woman:*

WE ARE FROM MoP&D. WE ARE WORKING ON A PROJECT CONCERNED WITH FAMILY HEALTH AND EDUCATION. I WOULD LIKE TO TALK TO YOU ABOUT THESE SUBJECTS. THE INTERVIEW WILL TAKE ABOUT **20 - 30** MINUTES. ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND YOUR ANSWERS WILL NEVER BE SHARED WITH ANYONE OTHER THAN OUR PROJECT TEAM.

**MAY I START NOW?**

*Yes, permission is given*  $\Rightarrow$  Go to WM10 to record the time and then begin the interview.

*No, permission is not given*  $\Rightarrow$  Complete WM7. Discuss this result with your supervisor.

*If greeting at the beginning of the household questionnaire has already been read to this woman, then read the following:*

Now I WOULD LIKE TO TALK TO YOU MORE ABOUT YOUR HEALTH AND OTHER TOPICS. THIS INTERVIEW WILL TAKE ABOUT **20 - 30** MINUTES. AGAIN, ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND YOUR ANSWERS WILL NEVER BE SHARED WITH ANYONE OTHER THAN OUR PROJECT TEAM.

WM7. Result of woman's interview	Completed ..... 01 Not at home ..... 02 Refused ..... 03 Partly completed ..... 04 Incapacitated ..... 05  Other (specify) _____ 96
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WM8. Field edited by (Name and number): Name _____	WM9. Data entry clerk (Name and number): Name _____
---	--

WM10. Record the time.	Hour and minutes ..... : ____	
------------------------	-------------------------------	--

WOMAN'S BACKGROUND		WB
WB1. IN WHAT MONTH AND YEAR WERE YOU BORN?  <i>If unknown month or year, ask for documents or use the calendar of events</i>	Date of birth Month..... DK month.....98  Year ..... DK year.....9998	
WB2. HOW OLD ARE YOU?  <i>Probe: HOW OLD WERE YOU AT YOUR LAST BIRTHDAY?</i>  <i>Compare and correct WB1 and/or WB2 if inconsistent</i>	Age (in completed years) .....	
WB3. HAVE YOU EVER ATTENDED FORMAL SCHOOL OR PRESCHOOL?	Yes .....1 No .....2	2⇒WB7
WB4. WHAT IS THE HIGHEST LEVEL OF FORMAL SCHOOL YOU ATTENDED?	Preschool .....0 Primary .....1 Secondary .....2 Higher .....3	0⇒WB7
WB5. WHAT IS THE HIGHEST GRADE YOU COMPLETED AT THAT LEVEL?  <i>If less than 1 grade, enter "00"</i>	Grade .....	
WB6. Check WB4:  <input type="checkbox"/> Secondary or higher ⇒ Go to Next Module  <input type="checkbox"/> Else ⇒ Continue with WB7		
WB7. NOW I WOULD LIKE YOU TO READ THIS SENTENCE TO ME.  <i>Show sentence on the card to the respondent. If respondent cannot read whole sentence, probe:</i>  CAN YOU READ PART OF THE SENTENCE TO ME?	Cannot read at all .....1 Able to read only parts of sentence .....2 Able to read whole sentence .....3  No sentence in required language .....4 <i>(specify language)</i>  Blind / mute, visually / speech impaired .....5	

**ACCESS TO MASS MEDIA AND USE OF INFORMATION/COMMUNICATION TECHNOLOGY MT**
**MT1. Check WB7:**

*Question left blank (Respondent has secondary or higher education) ⇒ Continue with MT2*

*Able to read or no sentence in required language (codes 2, 3 or 4) ⇒ Continue with MT2*

*Cannot read at all or blind (codes 1 or 5) ⇒ Go to MT3*

MT2. HOW OFTEN DO YOU READ A NEWSPAPER OR MAGAZINE: ALMOST EVERY DAY, AT LEAST ONCE A WEEK, LESS THAN ONCE A WEEK OR NOT AT ALL?	Almost every day ..... 1 At least once a week..... 2 Less than once a week..... 3 Not at all..... 4	
MT3. DO YOU LISTEN TO THE RADIO ALMOST EVERY DAY, AT LEAST ONCE A WEEK, LESS THAN ONCE A WEEK OR NOT AT ALL?	Almost every day ..... 1 At least once a week..... 2 Less than once a week..... 3 Not at all..... 4	
MT4. HOW OFTEN DO YOU WATCH TELEVISION: WOULD YOU SAY THAT YOU WATCH ALMOST EVERY DAY, AT LEAST ONCE A WEEK, LESS THAN ONCE A WEEK OR NOT AT ALL?	Almost every day ..... 1 At least once a week..... 2 Less than once a week..... 3 Not at all..... 4	

**MT5. Check WB2: Age of respondent 15-24 years?**

*Yes, age 15-24 ⇒ Continue with MT6*

*No, age 25-49 ⇒ Go to Next Module*

MT6. HAVE YOU EVER USED A COMPUTER?	Yes..... 1 No ..... 2	2⇒MT9
MT7. HAVE YOU USED A COMPUTER FROM ANY LOCATION IN THE LAST 12 MONTHS?	Yes ..... 1 No ..... 2	2⇒MT9
MT8. DURING THE LAST ONE MONTH, HOW OFTEN DID YOU USE A COMPUTER: ALMOST EVERY DAY, AT LEAST ONCE A WEEK, LESS THAN ONCE A WEEK OR NOT AT ALL?	Almost every day ..... 1 At least once a week..... 2 Less than once a week..... 3 Not at all..... 4	
MT9. HAVE YOU EVER USED THE INTERNET?	Yes..... 1 No ..... 2	2⇒Next Module
MT10. IN THE LAST 12 MONTHS, HAVE YOU USED THE INTERNET?  <i>If necessary, probe for use from any location, with any device.</i>	Yes ..... 1 No ..... 2	2⇒Next Module
MT11. DURING THE LAST ONE MONTH, HOW OFTEN DID YOU USE THE INTERNET: ALMOST EVERY DAY, AT LEAST ONCE A WEEK, LESS THAN ONCE A WEEK OR NOT AT ALL?	Almost every day ..... 1 At least once a week..... 2 Less than once a week..... 3 Not at all..... 4	

MARRIAGE		MA
MA1. ARE YOU CURRENTLY MARRIED?	Yes, currently married ..... 1 No, not in marriage ..... 3	3⇒MA5
MA2. HOW OLD IS YOUR HUSBAND?  <i>Probe: HOW OLD WAS YOUR HUSBAND ON HIS LAST BIRTHDAY?</i>	Age in years.....  DK.....98	
MA3. BESIDES YOURSELF, DOES YOUR HUSBAND HAVE ANY OTHER WIVES?	Yes ..... 1 No ..... 2	2⇒MA7
MA4. HOW MANY OTHER WIVES DOES HE HAVE?	Number.....  DK.....98	⇒MA7 98⇒MA7
MA5. HAVE YOU EVER BEEN MARRIED?	Yes, formerly married ..... 1 No ..... 3	3⇒Illness Symptoms Module
MA6. WHAT IS YOUR MARITAL STATUS NOW: ARE YOU WIDOWED, DIVORCED OR SEPARATED?	Widowed.....1 Divorced .....2 Separated.....3	
MA7. HAVE YOU BEEN MARRIED MORE THAN ONCE?	Only once ..... 1 More than once.....2	
MA8. IN WHAT MONTH AND YEAR DID YOU <u>FIRST</u> MARRY?	Date of first marriage Month..... DK month.....98  Year .....  DK year.....9998	⇒Next Module
MA9. HOW OLD WERE YOU WHEN YOU STARTED LIVING WITH YOUR FIRST HUSBAND?	Age in years.....	

**CHILD MORTALITY**
**CM**

*This module is to be administered to all ever-married women  
All questions refer only to LIVE births.*

CM1. NOW I WOULD LIKE TO ASK ABOUT ALL THE BIRTHS YOU HAVE HAD DURING YOUR LIFE. HAVE YOU EVER GIVEN BIRTH?	Yes ..... 1 No ..... 2	2⇒CM8
CM4. DO YOU HAVE ANY SONS OR DAUGHTERS TO WHOM YOU HAVE GIVEN BIRTH WHO ARE NOW LIVING WITH YOU?	Yes ..... 1 No ..... 2	2⇒CM6
CM5. HOW MANY SONS LIVE WITH YOU?  HOW MANY DAUGHTERS LIVE WITH YOU?  <i>If none, record '00'.</i>	Sons at home .....  Daughters at home.....	
CM6. DO YOU HAVE ANY SONS OR DAUGHTERS TO WHOM YOU HAVE GIVEN BIRTH WHO ARE ALIVE BUT DO NOT LIVE WITH YOU?	Yes ..... 1 No ..... 2	2⇒CM8
CM7. HOW MANY SONS ARE ALIVE BUT DO NOT LIVE WITH YOU?  HOW MANY DAUGHTERS ARE ALIVE BUT DO NOT LIVE WITH YOU?  <i>If none, record '00'.</i>	Sons elsewhere.....  Daughters elsewhere .....	
CM8. HAVE YOU EVER GIVEN BIRTH TO A BOY OR GIRL WHO WAS BORN ALIVE BUT LATER DIED?  <i>If "No" probe by asking: I MEAN, TO A CHILD WHO EVER BREATHED OR CRIED OR SHOWED OTHER SIGNS OF LIFE – EVEN IF HE OR SHE LIVED ONLY A FEW MINUTES OR HOURS?</i>	Yes ..... 1 No..... 2	2⇒CM10
CM9. HOW MANY BOYS HAVE DIED?  HOW MANY GIRLS HAVE DIED?  <i>If none, record '00'.</i>	Boys dead .....  Girls dead .....	
CM10. Sum answers to CM5, CM7, and CM9.	Sum .....	

CM11. JUST TO MAKE SURE THAT I HAVE THIS RIGHT, YOU HAVE HAD IN TOTAL (*total number in CM10*) LIVE BIRTHS DURING YOUR LIFE. IS THIS CORRECT?

Yes. Check below:

No live births ⇒ Go to ILLNESS SYMPTOMS Module

One or more live births ⇒ Continue with the BIRTH HISTORY module

No ⇒ Check responses to CM1-CM10 and make corrections as necessary before proceeding to the BIRTH HISTORY Module or ILLNESS SYMPTOMS Module

**BIRTH HISTORY**
**BH**

Now I WOULD LIKE TO RECORD THE NAMES OF ALL OF YOUR BIRTHS, WHETHER STILL ALIVE OR NOT, STARTING WITH THE FIRST ONE YOU HAD.

Record names of all of the births in BH1. Record twins and triplets on separate line. If there are more than 14 births, use an additional questionnaire.

BH Line No.	BH1. WHAT NAME WAS GIVEN TO YOUR (first/next) BABY?	BH2. WERE ANY OF THESE BIRTHS TWINS?	BH3. Is (name) A BOY OR A GIRL?	BH4. IN WHAT MONTH AND YEAR WAS (name) BORN? <i>Probe: WHAT IS HIS/HER BIRTHDAY?</i>	BH5. Is (name) STILL ALIVE?	BH6. HOW OLD WAS (name) AT HIS/HER LAST BIRTHDAY?	BH7. Is (name) LIVING WITH YOU?	BH8. Record household line number of child (from HL1)	BH9. If dead: HOW OLD WAS (name) WHEN HE/SHE DIED? <i>If "1 year", probe: HOW MANY MONTHS OLD WAS (name)?</i> <i>Record days if less than 1 month; record months if less than 2 years; or years</i>	BH10. WERE THERE ANY OTHER LIVE BIRTHS BETWEEN (name of previous birth) AND (name), INCLUDING ANY CHILDREN WHO DIED AFTER BIRTH?		
Line	Name	S M	B G	Month	Year	Y N	Age	Y N	Line No	Unit	Number	Y N
01		1 2	1 2	_____	_____	1 2 ⇒ BH9	_____	1 2	_____ ⇒ Next Line	Days.....1 Months.....2 Years.....3	_____	1 2 Add Birth Next Birth
02		1 2	1 2	_____	_____	1 2 ⇒ BH9	_____	1 2	_____ ⇒ BH10	Days.....1 Months.....2 Years.....3	_____	1 2 Add Birth Next Birth
03		1 2	1 2	_____	_____	1 2 ⇒ BH9	_____	1 2	_____ ⇒ BH10	Days.....1 Months.....2 Years.....3	_____	1 2 Add Birth Next Birth
04		1 2	1 2	_____	_____	1 2 ⇒ BH9	_____	1 2	_____ ⇒ BH10	Days.....1 Months.....2 Years.....3	_____	1 2 Add Birth Next Birth
05		1 2	1 2	_____	_____	1 2 ⇒ BH9	_____	1 2	_____ ⇒ BH10	Days.....1 Months.....2 Years.....3	_____	1 2 Add Birth Next Birth
06		1 2	1 2	_____	_____	1 2 ⇒ BH9	_____	1 2	_____ ⇒ BH10	Days.....1 Months.....2 Years.....3	_____	1 2 Add Birth Next Birth
07		1 2	1 2	_____	_____	1 2 ⇒ BH9	_____	1 2	_____ ⇒ BH10	Days.....1 Months.....2 Years.....3	_____	1 2 Add Birth Next Birth

BH Line No.	BH1. WHAT NAME WAS GIVEN TO YOUR (first/next) BABY?	BH2. WERE ANY OF THESE BIRTHS TWINS?	BH3. Is (name) A BOY OR A GIRL?	BH4. IN WHAT MONTH AND YEAR WAS (name) BORN? <i>Probe: WHAT IS HIS/HER BIRTHDAY?</i>		BH5. Is (name) STILL ALIVE?	BH6. HOW OLD WAS (name) AT HIS/HER LAST BIRTHDAY?	BH7. Is (name) LIVING WITH YOU?	BH8. Record household line number of child (from HL1)	BH9. <i>If dead:</i> HOW OLD WAS (name) WHEN HE/SHE DIED? <i>If "1 year", probe:</i> HOW MANY MONTHS OLD WAS (name)? <i>Record days if less than 1 month; record months if less than 2 years; or years</i>	BH10. WERE THERE ANY OTHER LIVE BIRTHS BETWEEN (name of previous birth) AND (name), INCLUDING ANY CHILDREN WHO DIED AFTER BIRTH?		
	1 Single 2 Multiple	1 Boy 2 Girl			1 Yes 2 No	Record age in completed years.	1 Yes 2 No	Record "00" if child is not listed.		Record days if less than 1 month; record months if less than 2 years; or years	1 Yes 2 No		
Line	Name	S M	B G	Month	Year	Y N	Age	Y N	Line No	Unit	Number	Y N	
08		1 2	1 2	— —	— — — —	1 2 ⇒ BH9	— —	1 2	— — ⇒BH10	Days.....1 Months.....2 Years.....3	— —	1 2 Add Birth Next Birth	
09		1 2	1 2	— —	— — — —	1 2 ⇒ BH9	— —	1 2	— — ⇒BH10	Days.....1 Months.....2 Years.....3	— —	1 2 Add Birth Next Birth	
10		1 2	1 2	— —	— — — —	1 2 ⇒ BH9	— —	1 2	— — ⇒BH10	Days.....1 Months.....2 Years.....3	— —	1 2 Add Birth Next Birth	
11		1 2	1 2	— —	— — — —	1 2 ⇒ BH9	— —	1 2	— — ⇒BH10	Days.....1 Months.....2 Years.....3	— —	1 2 Add Birth Next Birth	
12		1 2	1 2	— —	— — — —	1 2 ⇒ BH9	— —	1 2	— — ⇒BH10	Days.....1 Months.....2 Years.....3	— —	1 2 Add Birth Next Birth	
13		1 2	1 2	— —	— — — —	1 2 ⇒ BH9	— —	1 2	— — ⇒BH10	Days.....1 Months.....2 Years.....3	— —	1 2 Add Birth Next Birth	
14		1 2	1 2	— —	— — — —	1 2 ⇒ BH9	— —	1 2	— — ⇒BH10	Days.....1 Months.....2 Years.....3	— —	1 2 Add Birth Next Birth	
BH11. HAVE YOU HAD ANY LIVE BIRTHS SINCE THE BIRTH OF (name of last birth in Birth History)?								Yes ..... 1 No ..... 2				1⇒Record Birth(s) in Birth History	

**CM12.** Compare number in CM10 with number of births in the Birth History above and check:

- Numbers are same  $\Rightarrow$  Continue with CM13
- Numbers are different  $\Rightarrow$  Probe and reconcile

**CM13.** Check BH4 in BIRTH HISTORY: Last birth occurred within the last 2 years, that is, since (day and month of interview) in 2009

- No live birth in last 2 years.  $\Rightarrow$  Go to ILLNESS SYMPTOMS Module.
- One or more live births in last 2 years.  $\Rightarrow$  Record name of last born child and continue with next module

Name of child \_\_\_\_\_

If child has died, take special care when referring to this child by name in the following modules.

**DESIRE FOR LAST BIRTH****DB**

*This module is to be administered to all ever-married women with a live birth in the 2 years preceding date of interview.*

*Check child mortality module CM13 and record name of last-born child here \_\_\_\_\_.*

*Use this child's name in the following questions, where indicated.*

DB1. WHEN YOU GOT PREGNANT WITH (name), DID YOU WANT TO GET PREGNANT AT THAT TIME?	Yes ..... 1 No ..... 2	1⇒Next Module
DB2. DID YOU WANT TO HAVE A BABY LATER ON, OR DID YOU NOT WANT ANY (MORE) CHILDREN?	Later ..... 1 No more ..... 2	2⇒Next Module
DB3. HOW MUCH LONGER DID YOU WANT TO WAIT?	Months ..... 1 ____ Years ..... 2 ____ DK ..... 998	

**MATERNAL AND NEWBORN HEALTH**
**MN**

This module is to be administered to all ever-married women with a live birth in the 2 years preceding date of interview. Check child mortality module CM13 and record name of last-born child here \_\_\_\_\_.  
Use this child's name in the following questions, where indicated.

MN1. DID YOU SEE ANYONE FOR ANTEPARTUM CARE DURING YOUR PREGNANCY WITH (name)?	Yes ..... 1 No ..... 2	2⇒MN5
MN2. WHOM DID YOU SEE?  <i>Probe:</i> ANYONE ELSE?  <i>Probe for the type of person seen and circle all answers given.</i>	Health professional: Doctor ..... A Nurse / Midwife ..... B Auxiliary midwife ..... C Other person Traditional birth attendant ..... F Community health worker ..... G  Other (specify) ..... X	
MN2A. WHERE DID YOU MAINLY RECEIVE THE ANTEPARTUM CARE?  <i>Probe to identify the type of source.</i>  <i>If unable to determine whether public or private, write the name of the place.</i>  _____ (Name of place)	Home Home ..... 11 Other Home ..... 12  Public sector Govt. hospital ..... 21 Govt. clinic / health centre ..... 22 Govt. health post ..... 23 Other public (specify) ..... 24  Private Medical Sector Private hospital ..... 31 Private clinic ..... 32 Private maternity home ..... 33 Other private medical (specify) ..... 34  Other (specify) ..... 96	
MN3. HOW MANY TIMES DID YOU RECEIVE ANTEPARTUM CARE DURING YOUR PREGNANCY WITH (name)?	Number of times ..... ____ DK ..... 98	
MN4. AS PART OF YOUR ANTEPARTUM CARE DURING YOUR PREGNANCY WITH (name)?, WERE ANY OF THE FOLLOWING DONE AT LEAST ONCE:  [A] WAS YOUR BLOOD PRESSURE MEASURED? [B] DID YOU GIVE A URINE SAMPLE? [C] DID YOU GIVE A BLOOD SAMPLE?	Yes No Blood pressure ..... 1 2 Urine sample ..... 1 2 Blood sample ..... 1 2	
MN5. DO YOU HAVE A CARD OR OTHER DOCUMENT WITH YOUR OWN IMMUNIZATIONS LISTED (SUCH AS A CHILD HEALTH DAYS CARD)? MAY I SEE IT PLEASE? <i>If a card is presented, use it to assist with answers to the following questions.</i>	Yes (card seen) ..... 1 Yes (card not seen) ..... 2 No ..... 3 DK ..... 8	

MN6. WHEN YOU WERE PREGNANT WITH (name), DID YOU RECEIVE ANY INJECTION IN THE ARM OR SHOULDER TO PREVENT THE BABY FROM GETTING TETANUS, THAT IS CONVULSIONS AFTER BIRTH?	Yes ..... 1 No ..... 2 DK ..... 8	2⇒MN9 8⇒MN9
MN7. HOW MANY TIMES DID YOU RECEIVE THIS TETANUS INJECTION DURING YOUR PREGNANCY WITH (name)?  <i>If 7 or more times, record '7'.</i>	Number of times ..... ____ DK ..... 8	8⇒MN9
MN8. How many tetanus injections during last pregnancy were reported in MN7?		
<input type="checkbox"/> At least two tetanus injections during last pregnancy. ⇒ Go to MN12  <input type="checkbox"/> Only one tetanus injection during last pregnancy. ⇒ Continue with MN9		
MN9. DID YOU RECEIVE ANY TETANUS INJECTION AT ANY TIME BEFORE YOUR PREGNANCY WITH (name), EITHER TO PROTECT YOURSELF OR ANOTHER BABY?	Yes ..... 1 No ..... 2 DK ..... 8	2⇒MN12 8⇒MN12
MN10. HOW MANY TIMES DID YOU RECEIVE A TETANUS INJECTION BEFORE YOUR PREGNANCY WITH (name)?  <i>If 7 or more times, record '7'.</i>	Number of times ..... ____ DK ..... 8	8⇒MN12
MN11. HOW MANY YEARS AGO DID YOU RECEIVE THE LAST TETANUS INJECTION BEFORE YOUR PREGNANCY WITH (name)?	Years ago ..... ____	
MN12. Check MN1 for presence of antenatal care during pregnancy with (name)?:		
<input type="checkbox"/> Yes, antenatal care received. ⇒ Continue with MN13  <input type="checkbox"/> No antenatal care received ⇒ Go to MN17		
MN13. DURING ANY OF THESE ANTE-NATAL VISITS FOR THE PREGNANCY, DID YOU TAKE ANY MEDICINE IN ORDER TO <u>PREVENT</u> YOU FROM GETTING MALARIA?	Yes ..... 1 No ..... 2 DK ..... 8	2⇒MN17 8⇒MN17
MN14. WHICH MEDICINES DID YOU TAKE TO PREVENT MALARIA?  <i>Circle all medicines taken. If type of medicine is not determined, show typical anti-malarial to respondent.</i>	SP / Fansidar ..... A Chloroquine ..... B  Other (specify) ..... X DK ..... Z	
MN15. Check MN14 for medicine taken:		
<input type="checkbox"/> SP / Fansidar taken. ⇒ Continue with MN16  <input type="checkbox"/> SP / Fansidar not taken. ⇒ Go to MN17		
MN16. DURING YOUR PREGNANCY WITH (name)?, HOW MANY TIMES DID YOU TAKE SP/ FANSIDAR?	Number of times ..... ____ DK ..... 98	

<p>MN17. WHO ASSISTED WITH THE DELIVERY OF (name)?</p> <p><i>Probe:</i> ANYONE ELSE?</p> <p><i>Probe for the type of person assisting and circle all answers given.</i></p> <p><i>If respondent says no one assisted, probe to determine whether any adults were present at the delivery.</i></p>	<p>Health professional:</p> <p>Doctor.....A Nurse / Midwife .....B Auxiliary midwife .....C Other person Traditional birth attendant .....F Community health worker .....G Relative / Friend .....H</p> <p>Other (specify) _____ X No one .....Y</p>	
<p>MN18. WHERE DID YOU GIVE BIRTH TO (name)?</p> <p><i>Probe to identify the type of source.</i></p> <p><i>If unable to determine whether public or private, write the name of the place.</i></p> <p>_____ (Name of place)</p>	<p>Home</p> <p>Your home.....11 Other home .....12</p> <p>Public sector</p> <p>Govt. hospital .....21 Govt. clinic / health centre.....22 Govt. health post.....23 Other public (specify) .....26</p> <p>Private Medical Sector</p> <p>Private hospital .....31 Private clinic .....32 Private maternity home .....33 Other private medical (specify) .....36</p> <p>Other (specify) .....96</p>	<p>11⇒MN19A 12⇒MN19A</p> <p>96⇒MN19A</p>
<p>MN19. WAS (name) DELIVERED BY CAESAREAN SECTION? THAT IS, DID THEY CUT YOUR BELLY OPEN TO TAKE THE BABY OUT?</p>	<p>Yes .....1 No.....2</p>	
<p>MN19A. WHO ADVISED YOU ON WHERE TO GIVE BIRTH TO (name)?</p>	<p>Govt. doctor .....A Govt. health worker.....B</p> <p>Private Doctor .....C</p> <p>Husband.....D Other relatives.....E Friend(s).....F</p> <p>NGO Health worker.....G</p> <p>Other (specify) _____ X No one / DK .....Y</p>	
<p>MN20. WHEN (name) WAS BORN, WAS HE/SHE VERY LARGE, LARGER THAN AVERAGE, AVERAGE, SMALLER THAN AVERAGE, OR VERY SMALL?</p>	<p>Very large.....1 Larger than average.....2 Average.....3 Smaller than average.....4 Very small .....5 DK .....</p>	

MN21. WAS (name) WEIGHED AT BIRTH?	Yes ..... 1 No ..... 2  DK ..... 8	2⇒MN23 8⇒MN23
MN22. HOW MUCH DID (name) WEIGH?  <i>Record weight from health card, if available.</i>	From card ..... 1 (kg) ____.  From recall ..... 2 (kg) ____.  DK ..... 99998	
MN23. HAS YOUR MENSTRUAL PERIOD RETURNED SINCE THE BIRTH OF (name)?	Yes ..... 1 No ..... 2	
MN24. DID YOU EVER BREASTFEED (name)?	Yes ..... 1 No ..... 2	2⇒Next Module
MN25. HOW LONG AFTER BIRTH DID YOU FIRST PUT (name) TO THE BREAST?  <i>If less than 1 hour, record '00' hours. If less than 24 hours, record hours. Otherwise, record days.</i>	Immediately ..... 000  Hours ..... 1 ____  Days ..... 2 ____  Don't know / remember ..... 998	
MN26. IN THE FIRST THREE DAYS AFTER DELIVERY, WAS (NAME) GIVEN ANYTHING TO DRINK OTHER THAN BREAST MILK?  <i>If No probe: NOT EVEN WATER, HONEY, PORRIDGE, SOUP, SUGAR WATER, OR ANYTHING ELSE?</i>	Yes ..... 1 No ..... 2	2⇒Next Module
MN27. WHAT WAS (name) GIVEN TO DRINK?  <i>Probe: ANYTHING ELSE?</i>	Milk (other than breast milk) ..... A Plain water ..... B Sugar or glucose water ..... C Gripe water ..... D Sugar-salt-water solution ..... E Fruit juice ..... F Infant formula ..... G Tea / Infusions ..... H Honey ..... I  Other (specify) _____ X	

IS1. *Check Household Listing, column HL9*

Is the respondent the mother or caretaker of any child under age 5?

Yes.  $\Rightarrow$  Continue with IS2.

No.  $\Rightarrow$  Go to Next Module.

<p>IS2. SOMETIMES CHILDREN HAVE SEVERE ILLNESSES AND SHOULD BE TAKEN IMMEDIATELY TO A HEALTH FACILITY. WHAT TYPES OF SYMPTOMS WOULD CAUSE YOU TO TAKE YOUR CHILD TO A HEALTH FACILITY RIGHT AWAY?</p> <p><i>Probe:</i> ANY OTHER SYMPTOMS?</p> <p>Keep asking for more signs or symptoms until the mother/caretaker cannot recall any additional symptoms.</p> <p>Circle all symptoms mentioned, but do NOT prompt with any suggestions</p>	<p>Child not able to drink or breastfeed ..... A      Child becomes sicker ..... B      Child develops a fever ..... C      Child has fast breathing ..... D      Child has difficult breathing ..... E      Child has blood in stool ..... F      Child is drinking poorly ..... G</p> <p>Other (<i>specify</i>) _____ X</p> <p>Other (<i>specify</i>) _____ Y</p> <p>Other (<i>specify</i>) _____ Z</p>	
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## CONTRACEPTION

CP

CP0. Check MA1: Is respondent currently married?

Yes (MA1 = 1). ⇒ Continue with CP1.

No (MA1 = 3). ⇒ Go to FGM/C Module.

<p>CP1. I WOULD LIKE TO TALK WITH YOU ABOUT ANOTHER SUBJECT – FAMILY PLANNING.</p> <p>ARE YOU PREGNANT NOW?</p>	<p>Yes, currently pregnant ..... 1</p> <p>No ..... 2</p> <p>Unsure or DK ..... 8</p>	<p>1⇒Next Module</p>
<p>CP2. COUPLES USE VARIOUS WAYS OR METHODS TO DELAY OR AVOID A PREGNANCY.</p> <p>ARE YOU CURRENTLY DOING SOMETHING OR USING ANY METHOD TO DELAY OR AVOID GETTING PREGNANT?</p>	<p>Yes ..... 1</p> <p>No ..... 2</p>	<p>2⇒CP4</p>
<p>CP3. WHAT ARE YOU DOING TO DELAY OR AVOID A PREGNANCY?</p> <p>Do not prompt. If more than one method is mentioned, circle each one.</p>	<p>Female sterilization ..... A</p> <p>Male sterilization ..... B</p> <p>IUD ..... C</p> <p>Injectables ..... D</p> <p>Implants ..... E</p> <p>Pill ..... F</p> <p>Male condom ..... G</p> <p>Female condom ..... H</p> <p>Diaphragm ..... I</p> <p>Foam / Jelly ..... J</p> <p>Lactational amenorrhoea method (LAM) ..... K</p> <p>Periodic abstinence/Rhythm ..... L</p> <p>Withdrawal ..... M</p> <p>Other (specify) ..... X</p>	<p>⇒Next Module</p>
<p>CP4. WHAT IS THE <u>MAIN</u> REASON FOR NOT USING ANY METHOD TO DELAY OR AVOID A PREGNANCY?</p>	<p>Religious ..... 1</p> <p>Husband against ..... 2</p> <p>Other family members against ..... 3</p> <p>Contraceptives not available ..... 4</p> <p>Desire for child ..... 5</p> <p>Other (specify) ..... 6</p> <p>DK ..... 8</p>	

UNMET NEED	UN
<p>UN1. Check CP1. Currently pregnant?</p> <p><input type="checkbox"/> Yes, currently pregnant ⇒ Continue with UN2</p> <p><input type="checkbox"/> No, unsure or DK ⇒ Go to UN5</p>	
<p>UN2. Now I WOULD LIKE TO TALK TO YOU ABOUT YOUR CURRENT PREGNANCY. WHEN YOU GOT PREGNANT, DID YOU WANT TO GET PREGNANT AT THAT TIME?</p>	<p>Yes ..... 1 1⇒UN4</p> <p>No ..... 2</p>
<p>UN3. DID YOU WANT TO HAVE A BABY LATER ON OR DID YOU NOT WANT ANY (MORE) CHILDREN?</p>	<p>Later ..... 1</p> <p>No more ..... 2</p>
<p>UN4. Now I WOULD LIKE TO ASK SOME QUESTIONS ABOUT THE FUTURE. AFTER THE CHILD YOU ARE NOW EXPECTING, WOULD YOU LIKE TO HAVE ANOTHER CHILD, OR WOULD YOU PREFER NOT TO HAVE ANY MORE CHILDREN?</p>	<p>Have another child ..... 1 1⇒UN7</p> <p>No more / None ..... 2 2⇒UN13</p> <p>Undecided / Don't know ..... 8 8⇒UN13</p>
<p>UN5. Check CP3. Currently using "Female sterilization"?</p> <p><input type="checkbox"/> Yes. ⇒ Go to UN13</p> <p><input type="checkbox"/> No. ⇒ Continue with UN6</p>	
<p>UN6. Now I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT THE FUTURE. WOULD YOU LIKE TO HAVE (A/ANOTHER) CHILD, OR WOULD YOU PREFER NOT TO HAVE ANY (MORE) CHILDREN?</p>	<p>Have (a/another) child ..... 1</p> <p>No more / None ..... 2 2⇒UN9</p> <p>Says she cannot get pregnant ..... 3 3⇒UN11</p> <p>Undecided / Don't know ..... 8 8⇒UN9</p>
<p>UN7. HOW LONG WOULD YOU LIKE TO WAIT BEFORE THE BIRTH OF (A/ANOTHER) CHILD?</p>	<p>Months ..... 1 ____</p> <p>Years ..... 2 ____</p> <p>Soon / Now ..... 993</p> <p>Says she cannot get pregnant ..... 994</p> <p>Other ..... 996</p> <p>Don't know ..... 998 994⇒UN11</p>
<p>UN8. Check CP1. Currently pregnant?</p> <p><input type="checkbox"/> Yes, currently pregnant ⇒ Go to UN13</p> <p><input type="checkbox"/> No, unsure or DK ⇒ Continue with UN9</p>	

UN9. Check CP2. Currently using a method?

Yes. ⇒ Go to UN13

No ⇒ Continue with UN10

UN10. DO YOU THINK YOU ARE PHYSICALLY ABLE TO GET PREGNANT AT THIS TIME?	Yes.....1 No .....2 DK .....8	1 ⇒UN13 8 ⇒UN13
UN11. WHY DO YOU THINK YOU ARE NOT PHYSICALLY ABLE TO GET PREGNANT?	Infrequent sex / No sex.....A Menopausal .....B Never menstruated .....C Hysterectomy (surgical removal of uterus).....D Has been trying to get pregnant for 2 years or more without result .....E Postpartum amenorrhea .....F Breastfeeding .....G Too old .....H Fatalistic.....I  Other (specify) _____ X  Don't know .....Z	

UN12. Check UN11. "Never menstruated" mentioned?

Yes. ⇒ Go to Next Module

No ⇒ Continue with UN13

UN13. WHEN DID YOUR LAST MENSTRUAL PERIOD START?	Days ago.....1 ____ Weeks ago .....2 ____ Months ago .....3 ____ Years ago.....4 ____  In menopause / Has had hysterectomy .....994 Before last birth.....995 Never menstruated .....996	
--	--	--

FEMALE GENITAL MUTILATION/CUTTING			FG
FG1. HAVE YOU EVER HEARD OF FEMALE CIRCUMCISION?	Yes ..... 1 No ..... 2	1⇒FG3	
FG2. IN SOME COUNTRIES, THERE IS A PRACTICE IN WHICH A GIRL MAY HAVE PART OF HER GENITALS CUT OR NICKED SLIGHTLY (SUNI). HAVE YOU EVER HEARD ABOUT THIS PRACTICE?	Yes ..... 1 No ..... 2	2⇒Next Module	
FG3. HAVE YOU YOURSELF EVER BEEN CIRCUMCISED OR UNDERGONE SUNI?	Yes ..... 1 No ..... 2	2⇒FG8	
FG4. NOW I WOULD LIKE TO ASK YOU WHAT WAS DONE TO YOU AT THAT TIME.  WAS ANY FLESH REMOVED FROM THE GENITAL AREA?	Yes ..... 1 No ..... 2 DK ..... 8	1⇒FG6	
FG5. WAS THE GENITAL AREA JUST NICKED WITHOUT REMOVING ANY FLESH?	Yes ..... 1 No ..... 2 DK ..... 8		
FG6. WAS THE GENITAL AREA SEWN CLOSED?  <i>If necessary, probe: WAS IT SEALED?</i>	Yes ..... 1 No ..... 2 DK ..... 8		
FG7. HOW OLD WERE YOU WHEN YOU WERE CIRCUMCISED?  <i>If the respondent does not know the exact age, probe to get an estimate using your calendar of events and other information available to you</i>	Age at circumcision ..... ____  DK / Don't remember / Not sure ..... 98		
FG8. WHO PERFORMED THE CIRCUMCISION?	Health professional Doctor ..... 11 Nurse/Midwife ..... 12 Other health professional (specify) ..... 16  Traditional persons Traditional 'circumciser' ..... 21 Traditional birth attendant ..... 22 Other traditional (specify) ..... 26 DK ..... 98		
FG8A. <i>Check if woman was ever married:</i>	<input type="checkbox"/> MA5=3 (Never married) ⇒ Skip to FG22 <input type="checkbox"/> MA5=1 or MA5=No answer (formerly or currently married) ⇒ Continue with FG9		
FG9. <i>Check CM5 for Number of daughters at home and CM7 for Number of daughters elsewhere, and sum the answers here</i>	Total number of living daughters ..... ____		
FG10. JUST TO MAKE SURE THAT I HAVE THIS RIGHT, YOU HAVE (total number in FG9) LIVING DAUGHTERS. IS THIS CORRECT?	<input type="checkbox"/> Yes <input type="checkbox"/> One or more living daughters ⇒ Continue with FG11 <input type="checkbox"/> Does not have any living daughters ⇒ Go to FG22 <input type="checkbox"/> No ⇒ Check responses to CM1 – CM12 and BH1 – BH10 and make corrections as necessary, until FG10 = Yes		

**FG11.** Ask the respondent to tell you the name(s) of her daughter(s), beginning with the youngest daughter (if more than one daughter). Write down the name of each daughter in FG12. Then, ask questions FG13 to FG20 for each daughter at a time.

*The total number of daughters in FG12 should be equal to the number in FG9*

*If more than 4 daughters, use additional questionnaires*

	Daughter #1	Daughter #2	Daughter #3	Daughter #4
<b>FG12. Name of daughter</b>	_____	_____	_____	_____
<b>FG13. How old is (name)?</b>	Age..... ____	Age..... ____	Age..... ____	Age..... ____
<b>FG14. Is (name) younger than 15 years of age?</b>	Yes ..... 1 No ..... 2 <i>If "No", go to FG13 for next daughter. If no more daughters, go to FG22</i>	Yes ..... 1 No ..... 2 <i>If "No", go to FG13 for next daughter. If no more daughters, go to FG22</i>	Yes ..... 1 No ..... 2 <i>If "No", go to FG13 for next daughter. If no more daughters, go to FG22</i>	Yes ..... 1 No ..... 2 <i>If "No", go to FG13 for next daughter. If no more daughters, go to FG22</i>
<b>FG15. Is (name) CIRCUMCISED OR HAS UNDERGONE SUNI?</b>	Yes ..... 1 No ..... 2 <i>If "No", go to FG13 for next daughter. If no more daughters, go to FG22</i>	Yes ..... 1 No ..... 2 <i>If "No", go to FG13 for next daughter. If no more daughters, go to FG22</i>	Yes ..... 1 No ..... 2 <i>If "No", go to FG13 for next daughter. If no more daughters, go to FG22</i>	Yes ..... 1 No ..... 2 <i>If "No", go to FG13 for next daughter. If no more daughters, go to FG22</i>
<b>FG16. HOW OLD WAS (name) WHEN THIS OCCURRED?</b> <i>If the respondent does not know the exact age, probe to get an estimate using your calendar of events and other information available to you</i>	Age..... ____ DK ..... 98			
<b>FG17. NOW I WOULD LIKE TO ASK YOU WHAT WAS DONE TO (name) AT THAT TIME. WAS ANY FLESH REMOVED FROM THE GENITAL AREA?</b>	Yes ..... 1 ⇒FG19 No ..... 2 DK ..... 8			

FG18. WAS HER GENITAL AREA JUST NICKED WITHOUT REMOVING ANY FLESH?	Yes ..... 1 No ..... 2 DK ..... 8			
FG19. WAS HER GENITAL AREA SEWN CLOSED?  <i>If necessary, probe: WAS IT SEALED?</i>	Yes ..... 1 No ..... 2 DK ..... 8			
FG20. WHO PERFORMED THE CIRCUMCISION?	Health professional Doctor ..... 11 Nurse/midwife ..... 12 Other health professional (specify) ..... 16  Traditional persons Traditional 'circumciser' ..... 21 Traditional birth attendant ..... 22 Other traditional (specify) ..... 26  DK ..... 98	Health professional Doctor ..... 11 Nurse/midwife ..... 12 Other health professional (specify) ..... 16  Traditional persons Traditional 'circumciser' ..... 21 Traditional birth attendant ..... 22 Other traditional (specify) ..... 26  DK ..... 98	Health professional Doctor ..... 11 Nurse/midwife ..... 12 Other health professional (specify) ..... 16  Traditional persons Traditional 'circumciser' ..... 21 Traditional birth attendant ..... 22 Other traditional (specify) ..... 26  DK ..... 98	Health professional Doctor ..... 11 Nurse/midwife ..... 12 Other health professional (specify) ..... 16  Traditional persons Traditional 'circumciser' ..... 21 Traditional birth attendant ..... 22 Other traditional (specify) ..... 26  DK ..... 98
FG21.	<i>Go back to FG13 for next daughter. If no more daughters, go to FG22</i>	<i>Go back to FG13 for next daughter. If no more daughters, go to FG22</i>	<i>Go back to FG13 for next daughter. If no more daughters, go to FG22</i>	<i>Go back to FG13 in first column of additional questionnaire for next daughter. If no more daughters, go to FG22</i>
				<i>Tick here if additional questionnaire used</i> <input type="checkbox"/>

FG22. DO YOU THINK THE PRACTICE OF CIRCUMCISION SHOULD BE CONTINUED OR SHOULD IT BE DISCONTINUED?	Continued ..... 1 Discontinued ..... 2 Depends ..... 3  DK ..... 8	
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**ATTITUDES TOWARD DOMESTIC VIOLENCE****DV**

DV1. SOMETIMES A HUSBAND IS ANNOYED OR ANGERED BY THINGS THAT HIS WIFE DOES. IN YOUR OPINION, IS A HUSBAND JUSTIFIED IN HITTING OR BEATING HIS WIFE IN THE FOLLOWING SITUATIONS:  [A] IF SHE GOES OUT WITHOUT TELLING HIM? [B] IF SHE NEGLECTS THE CHILDREN? [C] IF SHE ARGUES WITH HIM? [D] IF SHE REFUSES TO HAVE SEX WITH HIM? [E] IF SHE BURNS THE FOOD?	Yes	No	DK
	Goes out without telling.....	1	2
	Neglects children .....	1	2
	Argues.....	1	2
	Refuses sex .....	1	2
	Burns food.....	1	2

HIV/AIDS	HA
HA1. NOW I WOULD LIKE TO TALK WITH YOU ABOUT SOMETHING ELSE.  HAVE YOU EVER HEARD OF AN ILLNESS CALLED AIDS?	Yes ..... 1 No ..... 2 2⇒WM11
HA2. CAN PEOPLE REDUCE THEIR CHANCE OF GETTING THE AIDS VIRUS BY HAVING JUST ONE UNINFECTED SEX PARTNER WHO HAS NO OTHER SEX PARTNERS?	Yes ..... 1 No ..... 2 DK ..... 8
HA3. CAN PEOPLE GET THE AIDS VIRUS BECAUSE OF WITCHCRAFT OR OTHER SUPERNATURAL MEANS?	Yes ..... 1 No ..... 2 DK ..... 8
HA4. CAN PEOPLE REDUCE THEIR CHANCE OF GETTING THE AIDS VIRUS BY USING A CONDOM EVERY TIME THEY HAVE SEX?	Yes ..... 1 No ..... 2 DK ..... 8
HA5. CAN PEOPLE GET THE AIDS VIRUS FROM MOSQUITO BITES?	Yes ..... 1 No ..... 2 DK ..... 8
HA6. CAN PEOPLE GET THE AIDS VIRUS BY SHARING FOOD WITH A PERSON WHO HAS THE AIDS VIRUS?	Yes ..... 1 No ..... 2 DK ..... 8
HA7. IS IT POSSIBLE FOR A HEALTHY-LOOKING PERSON TO HAVE THE AIDS VIRUS?	Yes ..... 1 No ..... 2 DK ..... 8
HA8. CAN THE VIRUS THAT CAUSES AIDS BE TRANSMITTED FROM A MOTHER TO HER BABY:  [A] DURING PREGNANCY? [B] DURING DELIVERY? [C] BY BREASTFEEDING?	Yes ..... 1 No ..... 2 DK ..... 8  Yes No DK During pregnancy ..... 1 2 8 During delivery ..... 1 2 8 By breastfeeding ..... 1 2 8
HA9. IN YOUR OPINION, IF A FEMALE TEACHER HAS THE AIDS VIRUS BUT IS NOT SICK, SHOULD SHE BE ALLOWED TO CONTINUE TEACHING IN SCHOOL?	Yes ..... 1 No ..... 2 DK / Not sure / Depends ..... 8
HA10. WOULD YOU BUY FRESH VEGETABLES FROM A SHOPKEEPER OR VENDOR IF YOU KNEW THAT THIS PERSON HAD THE AIDS VIRUS?	Yes ..... 1 No ..... 2 DK / Not sure / Depends ..... 8
HA11. IF A MEMBER OF YOUR FAMILY GOT INFECTED WITH THE AIDS VIRUS, WOULD YOU WANT IT TO REMAIN A SECRET?	Yes ..... 1 No ..... 2 DK / Not sure / Depends ..... 8
HA12. IF A MEMBER OF YOUR FAMILY BECAME SICK WITH AIDS, WOULD YOU BE WILLING TO CARE	Yes ..... 1 No ..... 2

FOR HER OR HIM IN YOUR OWN HOUSEHOLD?	DK / Not sure / Depends .....8																					
HA13. Check CM13: Any live birth in last 2 years?																						
<input type="checkbox"/> No live birth in last 2 years. $\Rightarrow$ Go to HA24. <input type="checkbox"/> Yes, live birth in last 2 years. $\Rightarrow$ Continue with HA14.																						
HA14. Check MN1: Received antenatal care?																						
<input type="checkbox"/> Yes, antenatal care received. $\Rightarrow$ Continue with HA15 <input type="checkbox"/> No antenatal care received $\Rightarrow$ Go to HA24																						
HA15. DURING ANY OF THE ANTENAL VISITS FOR YOUR PREGNANCY WITH (name),  WERE YOU GIVEN ANY INFORMATION ABOUT: [A] BABIES GETTING THE AIDS VIRUS FROM THEIR MOTHER?  [B] THINGS THAT YOU CAN DO TO PREVENT GETTING THE AIDS VIRUS?  [C] GETTING TESTED FOR THE AIDS VIRUS?  WERE YOU: [D] OFFERED A TEST FOR THE AIDS VIRUS?	<table> <thead> <tr> <th></th> <th>Y</th> <th>N</th> <th>DK</th> </tr> </thead> <tbody> <tr> <td>AIDS from mother.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>Things to do.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>Tested for AIDS.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>Offered a test.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> </tbody> </table>		Y	N	DK	AIDS from mother.....	1	2	8	Things to do.....	1	2	8	Tested for AIDS.....	1	2	8	Offered a test.....	1	2	8	
	Y	N	DK																			
AIDS from mother.....	1	2	8																			
Things to do.....	1	2	8																			
Tested for AIDS.....	1	2	8																			
Offered a test.....	1	2	8																			
HA16. I DON'T WANT TO KNOW THE RESULTS, BUT WERE YOU TESTED FOR THE AIDS VIRUS AS PART OF YOUR ANTENAL CARE?	Yes .....1 No .....2 DK.....8	2 $\Rightarrow$ HA19 8 $\Rightarrow$ HA19																				
HA17. I DON'T WANT TO KNOW THE RESULTS, BUT DID YOU GET THE RESULTS OF THE TEST?	Yes .....1 No .....2 DK.....8	2 $\Rightarrow$ HA22 8 $\Rightarrow$ HA22																				
HA18. REGARDLESS OF THE RESULT, ALL WOMEN WHO ARE TESTED ARE SUPPOSED TO RECEIVE COUNSELLING AFTER GETTING THE RESULT.  AFTER YOU WERE TESTED, DID YOU RECEIVE COUNSELLING?	Yes .....1 No .....2 DK.....8	1 $\Rightarrow$ HA22 2 $\Rightarrow$ HA22 8 $\Rightarrow$ HA22																				
HA19. Check MN17: Birth delivered by health professional (A, B or C)?																						
<input type="checkbox"/> Yes, birth delivered by health professional $\Rightarrow$ Continue with HA20 <input type="checkbox"/> No, birth not delivered by health professional $\Rightarrow$ Go to HA24																						
HA20. I DON'T WANT TO KNOW THE RESULTS, BUT WERE YOU TESTED FOR THE AIDS VIRUS BETWEEN THE TIME YOU WENT FOR DELIVERY BUT BEFORE THE BABY WAS BORN?	Yes .....1 No .....2	2 $\Rightarrow$ HA24																				

HA21. I DON'T WANT TO KNOW THE RESULTS, BUT DID YOU GET THE RESULTS OF THE TEST?	Yes ..... 1 No ..... 2	
HA22. HAVE YOU BEEN TESTED FOR THE AIDS VIRUS SINCE THAT TIME YOU WERE TESTED DURING YOUR PREGNANCY?	Yes ..... 1 No ..... 2	1⇒HA25
HA23. WHEN WAS THE MOST RECENT TIME YOU WERE TESTED FOR THE AIDS VIRUS?	Less than 12 months ago ..... 1 12-23 months ago ..... 2 2 or more years ago ..... 3	1⇒WM11 2⇒WM11 3⇒WM11
HA24. I DO NOT WANT TO KNOW THE RESULTS, BUT HAVE YOU EVER BEEN TESTED TO SEE IF YOU HAVE THE AIDS VIRUS?	Yes ..... 1 No ..... 2	2⇒HA27
HA25. WHEN WAS THE MOST RECENT TIME YOU WERE TESTED?	Less than 12 months ago ..... 1 12-23 months ago ..... 2 2 or more years ago ..... 3	
HA26. I DO NOT WANT TO KNOW THE RESULTS, BUT DID YOU GET THE RESULTS OF THE TEST?	Yes ..... 1 No ..... 2 DK ..... 8	1⇒WM11 2⇒WM11 8⇒WM11
HA27. DO YOU KNOW OF A PLACE WHERE PEOPLE CAN GO TO GET TESTED FOR THE AIDS VIRUS?	Yes ..... 1 No ..... 2	

WM11. Record the time.	Hour and minutes ..... : ____	
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WM12. Is the respondent the mother or caretaker of any child age 0-4 living in this household?  
Check household listing, column HL9.

Yes. ⇒ Go to **QUESTIONNAIRE FOR CHILDREN UNDER FIVE** for that child and start the interview with this respondent.

No. ⇒ End the interview with this respondent by thanking her for her cooperation.  
Check for the presence of any other eligible woman or child under-5 in the household.

**Interviewer's Observations**

**Field Editor's Observations**

**Supervisor's Observations**

## QUESTIONNAIRE FOR CHILDREN UNDER FIVE

### UNDER-FIVE CHILD INFORMATION PANEL

UF

This questionnaire is to be administered to all mothers or caretakers (see Household Listing Form, column HL9) who care for a child that lives with them and is under the age of 5 years (see Household Listing Form, column HL6).

A separate questionnaire should be used for each eligible child.

UF1. Cluster number: ____-____-____	UF2. Household number: ____-____-____
UF3. Child's name: Name _____	UF4. Child's line number: ____-____
UF5. Mother's / Caretaker's name: Name _____	UF6. Mother's / Caretaker's line number: ____-____
UF7. Interviewer name and number: Name _____	UF8. Day / Month / Year of interview: ____ / ____ / ____-____

REPEAT GREETING IF NOT ALREADY READ TO THIS RESPONDENT:

WE ARE FROM MoP&D. WE ARE WORKING ON A PROJECT CONCERNED WITH FAMILY HEALTH AND EDUCATION. I WOULD LIKE TO TALK TO YOU ABOUT (name)'S HEALTH AND WELL-BEING. THE INTERVIEW WILL TAKE ABOUT 20 - 30 MINUTES. ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND YOUR ANSWERS WILL NEVER BE SHARED WITH ANYONE OTHER THAN OUR PROJECT TEAM.

*If greeting at the beginning of the household questionnaire or for another child's questionnaire has already been read to this woman, then read the following:*

Now I WOULD LIKE TO TALK TO YOU MORE ABOUT (name)'S HEALTH AND OTHER TOPICS. THIS INTERVIEW WILL TAKE ABOUT 20 - 30 MINUTES. AGAIN, ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND YOUR ANSWERS WILL NEVER BE SHARED WITH ANYONE OTHER THAN OUR PROJECT TEAM.

MAY I START NOW?

- Yes, permission is given ⇒ Go to UF12 to record the time and then begin the interview.
- No, permission is not given ⇒ Complete UF9. Discuss this result with your supervisor

UF9. Result of interview for children under 5  Codes refer to mother/caretaker.	Completed ..... 01 Not at home ..... 02 Refused ..... 03 Partly completed ..... 04 Incapacitated ..... 05  Other (specify) _____ 96
---	---

UF10. Field edited by (Name and number): Name _____	UF11. Data entry clerk (Name and number): Name _____
--	---

UF12. Record the time.

Hour and minutes ..... : \_\_\_\_

AGE	AG
<p>AG1. NOW I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT THE HEALTH OF (<i>name</i>).</p> <p>IN WHAT MONTH AND YEAR WAS (<i>name</i>) BORN?</p> <p><i>Probe:</i> WHAT IS HIS / HER BIRTHDAY?</p> <p>DO YOU HAVE ANY DOCUMENTS THAT MAY HAVE (<i>name</i>)'S DATE OF BIRTH (SUCH AS A CHILD HEALTH DAY CARD, BIRTH NOTIFICATION, OR BIRTH CERTIFICATE)?</p> <p>If the mother/caretaker knows the exact birth date and/or it is printed in a document/card , also enter the day; otherwise, circle 98 for day</p> <p>Month and year <u>must</u> be recorded</p> <p>If unknown month or year, ask for documents or use the calendar of events</p>	<p>Date of birth</p> <p>Day ..... _____</p> <p>DK day ..... 98</p> <p>Month ..... _____</p> <p>Year ..... _____</p>
<p>AG2. HOW OLD IS (<i>name</i>)?</p> <p><i>Probe:</i> HOW OLD WAS (<i>name</i>) AT HIS / HER LAST BIRTHDAY?</p> <p>Record age in completed years. Record '0' if less than 1 year.</p> <p>Note: For most children, the age indicated on the Routine Immunization Card is <u>not</u> current</p>	<p>Age (in completed years) ..... _____</p>
<p>AG3. Compare AG1 and AG2:</p> <p><input type="checkbox"/> Date of birth and age are consistent <math>\Rightarrow</math> Continue with next AG4</p> <p><input type="checkbox"/> Date of birth and age are not consistent <math>\Rightarrow</math> Probe further for both date of birth and age until consistent</p>	

**AG4. Indicate how date of birth was obtained:**

- Mother's/caretaker's response alone*
- Any documentation used (tick all that apply):*
  - Child Health Day card*
  - Birth notification*
  - Birth certificate*
  - Calendar of events and/or known events in household*
  - Other documentation (specify) \_\_\_\_\_*
- Other (specify) \_\_\_\_\_*

EARLY CHILDHOOD DEVELOPMENT			EC
EC1. HOW MANY CHILDREN'S BOOKS OR PICTURE BOOKS DO YOU HAVE FOR (name)?	None ..... 00 Number of children's books ..... 0 ____ Ten or more books ..... 10		
EC2. I AM INTERESTED IN LEARNING ABOUT THE THINGS THAT (name) PLAYS WITH WHEN HE/SHE IS AT HOME.  DOES HE/SHE PLAY WITH:  [A] HOMEMADE TOYS (SUCH AS DOLLS, CARS, OR OTHER TOYS MADE AT HOME)? [B] TOYS FROM A SHOP OR MANUFACTURED TOYS? [C] HOUSEHOLD OBJECTS (SUCH AS BOWLS OR POTS) OR OBJECTS FOUND OUTSIDE (SUCH AS STICKS, ROCKS, ANIMAL SHELLS OR LEAVES)?	Y    N    DK  Homemade toys ..... 1    2    8 Toys from a shop ..... 1    2    8 Household objects or outside objects ..... 1    2    8		
If the respondent says "YES" to the categories above, then probe to learn specifically what the child plays with to ascertain the response			
EC3. SOMETIMES ADULTS TAKING CARE OF CHILDREN HAVE TO LEAVE THE HOUSE TO GO SHOPPING, WASH CLOTHES, OR FOR OTHER REASONS AND HAVE TO LEAVE YOUNG CHILDREN.  ON HOW MANY DAYS IN THE PAST WEEK WAS (name):  [A] LEFT ALONE FOR MORE THAN AN HOUR? [B] LEFT IN THE CARE OF ANOTHER CHILD THAT IS, SOMEONE LESS THAN 10 YEARS OLD FOR MORE THAN AN HOUR?	Number of days left alone for more than an hour ..... ____ Number of days left with other child for more than an hour ..... ____		
If 'none' enter '0'. If 'don't know' enter '8'			
EC4. Check AG2: Age of child			
<input type="checkbox"/> Child age 3 or 4 $\Rightarrow$ Continue with EC5			
<input type="checkbox"/> Child age 0, 1 or 2 $\Rightarrow$ Go to Next Module			
EC5. DOES (name) ATTEND ANY ORGANIZED LEARNING OR EARLY CHILDHOOD EDUCATION	Yes ..... 1		

PROGRAMME, SUCH AS A PRIVATE OR GOVERNMENT FACILITY, INCLUDING KINDERGARTEN OR COMMUNITY CHILD CARE?	No ..... 2 DK ..... 8	2⇒EC6A 8⇒EC6A																																									
EC6. WITHIN THE LAST SEVEN DAYS, ABOUT HOW MANY HOURS DID (name) ATTEND?	Number of hours ..... ____	⇒ EC7																																									
EC6A. DOES (name) ATTEND KORANIC SCHOOL?	Yes ..... 1 No ..... 2 DK ..... 8	2⇒EC7 8⇒EC7																																									
EC6B. WITHIN THE LAST SEVEN DAYS, ABOUT HOW MANY HOURS DID (name) ATTEND KORANIC SCHOOL?	Number of hours ..... ____																																										
EC7. IN THE PAST 3 DAYS, DID YOU OR ANY HOUSEHOLD MEMBER OVER 15 YEARS OF AGE ENGAGE IN ANY OF THE FOLLOWING ACTIVITIES WITH (name):  <i>If yes, ask: WHO ENGAGED IN THIS ACTIVITY WITH (name)?  Circle all that apply.</i>	<table> <thead> <tr> <th></th> <th>Mother</th> <th>Father</th> <th>Other</th> <th>No one</th> </tr> </thead> <tbody> <tr> <td>[A] READ BOOKS TO OR LOOKED AT PICTURE BOOKS WITH (name)?</td> <td>Read books</td> <td>A</td> <td>B</td> <td>X</td> <td>Y</td> </tr> <tr> <td>[B] TOLD STORIES TO (name)?</td> <td>Told stories</td> <td>A</td> <td>B</td> <td>X</td> <td>Y</td> </tr> <tr> <td>[C] SANG SONGS TO (name) OR WITH (name), INCLUDING LULLABYS?</td> <td>Sang songs</td> <td>A</td> <td>B</td> <td>X</td> <td>Y</td> </tr> <tr> <td>[D] TOOK (name) OUTSIDE THE HOME, COMPOUND, YARD OR ENCLOSURE?</td> <td>Took outside</td> <td>A</td> <td>B</td> <td>X</td> <td>Y</td> </tr> <tr> <td>[E] PLAYED WITH (name)?</td> <td>Played with</td> <td>A</td> <td>B</td> <td>X</td> <td>Y</td> </tr> <tr> <td>[F] NAMED, COUNTED, OR DREW THINGS TO OR WITH (name)?</td> <td>Named/counted</td> <td>A</td> <td>B</td> <td>X</td> <td>Y</td> </tr> </tbody> </table>		Mother	Father	Other	No one	[A] READ BOOKS TO OR LOOKED AT PICTURE BOOKS WITH (name)?	Read books	A	B	X	Y	[B] TOLD STORIES TO (name)?	Told stories	A	B	X	Y	[C] SANG SONGS TO (name) OR WITH (name), INCLUDING LULLABYS?	Sang songs	A	B	X	Y	[D] TOOK (name) OUTSIDE THE HOME, COMPOUND, YARD OR ENCLOSURE?	Took outside	A	B	X	Y	[E] PLAYED WITH (name)?	Played with	A	B	X	Y	[F] NAMED, COUNTED, OR DREW THINGS TO OR WITH (name)?	Named/counted	A	B	X	Y	
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[E] PLAYED WITH (name)?	Played with	A	B	X	Y																																						
[F] NAMED, COUNTED, OR DREW THINGS TO OR WITH (name)?	Named/counted	A	B	X	Y																																						
EC8. I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT THE HEALTH AND DEVELOPMENT OF YOUR CHILD. CHILDREN DO NOT ALL DEVELOP AND LEARN AT THE SAME RATE. FOR EXAMPLE, SOME WALK EARLIER THAN OTHERS. THESE QUESTIONS ARE RELATED TO SEVERAL ASPECTS OF YOUR CHILD'S DEVELOPMENT.  CAN (name) IDENTIFY OR NAME AT LEAST TEN LETTERS OF THE ALPHABET?	Yes ..... 1 No ..... 2 DK ..... 8																																										
EC9. CAN (name) READ AT LEAST FOUR SIMPLE, POPULAR WORDS?	Yes ..... 1 No ..... 2																																										

If no, probe: THIS CAN BE IN ANY LANGUAGE (SOMALI, ARABIC, ETC.)	DK.....8	
EC10. DOES <i>(name)</i> KNOW THE NAME AND RECOGNIZE THE SYMBOL OF ALL NUMBERS FROM 1 TO 10?	Yes.....1 No .....2 DK.....8	
EC11. CAN <i>(name)</i> PICK UP A SMALL OBJECT WITH TWO FINGERS, LIKE A STICK OR A ROCK FROM THE GROUND?	Yes.....1 No .....2 DK.....8	
EC12. Is <i>(name)</i> SOMETIMES TOO SICK TO PLAY?	Yes.....1 No .....2 DK.....8	
EC13. DOES <i>(name)</i> FOLLOW SIMPLE DIRECTIONS ON HOW TO DO SOMETHING CORRECTLY?	Yes.....1 No .....2 DK.....8	
EC14. WHEN GIVEN SOMETHING TO DO, IS <i>(name)</i> ABLE TO DO IT INDEPENDENTLY?	Yes.....1 No .....2 DK.....8	
EC15. DOES <i>(name)</i> GET ALONG WELL WITH OTHER CHILDREN?	Yes.....1 No .....2 DK.....8	
EC16. DOES <i>(name)</i> KICK, BITE, OR HIT OTHER CHILDREN OR ADULTS?	Yes.....1 No .....2 DK.....8	
EC17. DOES <i>(name)</i> GET DISTRACTED EASILY?	Yes.....1 No .....2 DK.....8	

<b>BREASTFEEDING</b>		
		<b>BF</b>
BF1. HAS <i>(name)</i> EVER BEEN BREASTFED?	Yes ..... 1 No ..... 2 DK ..... 8	2⇒BF3 8⇒BF3
BF2. IS HE/SHE STILL BEING BREASTFED?	Yes ..... 1 No ..... 2 DK ..... 8	
BF3. I WOULD LIKE TO ASK YOU ABOUT LIQUIDS THAT <i>(name)</i> MAY HAVE HAD YESTERDAY DURING THE DAY OR THE NIGHT. I AM INTERESTED IN WHETHER <i>(name)</i> HAD THE ITEM EVEN IF IT WAS COMBINED WITH OTHER FOODS.  DID <i>(name)</i> <u>DRINK PLAIN WATER</u> YESTERDAY, DURING THE DAY OR NIGHT?	Yes ..... 1 No ..... 2 DK ..... 8	
BF4. DID <i>(name)</i> <u>DRINK INFANT FORMULA</u> YESTERDAY, DURING THE DAY OR NIGHT?	Yes ..... 1 No ..... 2 DK ..... 8	2⇒BF6 8⇒BF6
BF5. HOW MANY TIMES DID <i>(name)</i> DRINK INFANT FORMULA?	Number of times ..... ____	
BF6. DID <i>(name)</i> <u>DRINK MILK, SUCH AS TINNED, POWDERED OR FRESH ANIMAL MILK</u> YESTERDAY, DURING THE DAY OR NIGHT?	Yes ..... 1 No ..... 2 DK ..... 8	2⇒BF8 8⇒BF8
BF7. HOW MANY TIMES DID <i>(name)</i> DRINK TINNED, POWDERED OR FRESH ANIMAL MILK?	Number of times ..... ____	
BF8. DID <i>(name)</i> <u>DRINK JUICE OR JUICE DRINKS</u> YESTERDAY, DURING THE DAY OR NIGHT?	Yes ..... 1 No ..... 2 DK ..... 8	
BF9. DID <i>(name)</i> <u>DRINK MARAQCAD</u> YESTERDAY, DURING THE DAY OR NIGHT?	Yes ..... 1 No ..... 2 DK ..... 8	
BF10. DID <i>(name)</i> <u>DRINK OR EAT VITAMIN OR MINERAL SUPPLEMENTS OR ANY MEDICINES</u> YESTERDAY, DURING THE DAY OR NIGHT?	Yes ..... 1 No ..... 2 DK ..... 8	

BF11. DID (name) DRINK ORS (ORAL REHYDRATION SOLUTION) YESTERDAY, DURING THE DAY OR NIGHT?	Yes ..... 1 No ..... 2 DK ..... 8	
BF12. DID (name) DRINK ANY OTHER LIQUIDS YESTERDAY, DURING THE DAY OR NIGHT?	Yes ..... 1 No ..... 2 DK ..... 8	
BF13. DID (name) DRINK OR EAT YOGURT YESTERDAY, DURING THE DAY OR NIGHT?	Yes ..... 1 No ..... 2 DK ..... 8	2⇒BF15 8⇒BF15
BF14. HOW MANY TIMES DID (name) DRINK OR EAT YOGURT YESTERDAY, DURING THE DAY OR NIGHT?	Number of times ..... ____	
BF15. DID (NAME) EAT THIN PORRIDGE YESTERDAY, DURING THE DAY OR NIGHT?	Yes ..... 1 No ..... 2 DK ..... 8	
BF16. DID (name) EAT SOLID OR SEMI-SOLID (SOFT, MUSHY) FOOD YESTERDAY, DURING THE DAY OR NIGHT?	Yes ..... 1 No ..... 2 DK ..... 8	2⇒BF18 8⇒BF18
BF17. HOW MANY TIMES DID (name) EAT SOLID OR SEMI-SOLID (SOFT, MUSHY) FOOD YESTERDAY, DURING THE DAY OR NIGHT?	Number of times ..... ____	
BF18. YESTERDAY, DURING THE DAY OR NIGHT, DID (name) DRINK ANYTHING FROM A BOTTLE WITH A NIPPLE?	Yes ..... 1 No ..... 2 DK ..... 8	

CARE OF ILLNESS		CA
CA1. IN THE LAST TWO WEEKS, HAS (name) HAD DIARRHOEA?	Yes ..... 1 No ..... 2  DK ..... 8	2⇒CA7  8⇒CA7
CA2. I WOULD LIKE TO KNOW HOW MUCH (name) WAS GIVEN TO DRINK DURING THE DIARRHOEA (INCLUDING BREASTMILK).  DURING THE TIME (name) HAD DIARRHOEA, WAS HE/SHE GIVEN LESS THAN USUAL TO DRINK, ABOUT THE SAME AMOUNT, OR MORE THAN USUAL?  <i>If less, probe:</i> WAS HE/SHE GIVEN MUCH LESS THAN USUAL TO DRINK, OR SOMEWHAT LESS?	Much less ..... 1 Somewhat less ..... 2 About the same ..... 3 More ..... 4 Nothing to drink ..... 5  DK ..... 8	
CA3. DURING THE TIME (name) HAD DIARRHOEA, WAS HE/SHE GIVEN LESS THAN USUAL TO EAT, ABOUT THE SAME AMOUNT, MORE THAN USUAL, OR NOTHING TO EAT?  If “less”, probe: WAS HE/SHE GIVEN MUCH LESS THAN USUAL TO EAT OR SOMEWHAT LESS?	Much less ..... 1 Somewhat less ..... 2 About the same ..... 3 More ..... 4 Stopped food ..... 5 Never gave food ..... 6  DK ..... 8	
CA4. DURING THE EPISODE OF DIARRHOEA, WAS (name) GIVEN TO DRINK A FLUID MADE FROM A SPECIAL PACKET CALLED ORS SUCH AS THIS?  <i>Show sample ORS packet</i>	Yes ..... 1 No ..... 2  DK ..... 8	
CA5. WAS ANYTHING (ELSE) GIVEN TO TREAT THE DIARRHOEA?	Yes ..... 1 No ..... 2  DK ..... 8	2⇒CA7  8⇒CA7

<p>CA6. WHAT (ELSE) WAS GIVEN TO TREAT THE DIARRHOEA?</p> <p><i>Probe:</i> ANYTHING ELSE?</p> <p><i>Record all treatments given. Write brand name(s) of all medicines mentioned.</i></p> <hr/> <p>(Name)</p>	<p>Pill or Syrup</p> <p>Antibiotic ..... A</p> <p>Antimotility ..... B</p> <p>Zinc ..... C</p> <p>Other (Not antibiotic, antimotility or zinc) ..... G</p> <p>Unknown pill or syrup ..... H</p> <p>Injection</p> <p>Antibiotic ..... L</p> <p>Non-antibiotic ..... M</p> <p>Unknown injection ..... N</p> <p>Intravenous ..... O</p> <p>Home remedy / Herbal medicine ..... Q</p> <p>Other (<i>specify</i>) ..... X</p>	
<p>CA7. AT ANY TIME IN THE LAST TWO WEEKS, HAS (name) HAD AN ILLNESS WITH A COUGH?</p>	<p>Yes ..... 1</p> <p>No ..... 2</p> <p>DK ..... 8</p>	<p>2⇒CA14</p>
<p>CA8. WHEN (name) HAD AN ILLNESS WITH A COUGH, DID HE/SHE BREATHE FASTER THAN USUAL WITH SHORT, RAPID BREATHS OR HAVE DIFFICULTY BREATHING?</p>	<p>Yes ..... 1</p> <p>No ..... 2</p> <p>DK ..... 8</p>	<p>2⇒CA14</p>
<p>CA9. WAS THE FAST OR DIFFICULT BREATHING DUE TO A PROBLEM IN THE CHEST OR A BLOCKED OR RUNNY NOSE?</p>	<p>Problem in chest only ..... 1</p> <p>Blocked or runny nose only ..... 2</p> <p>Both ..... 3</p> <p>Other (<i>specify</i>) ..... 6</p> <p>DK ..... 8</p>	<p>2⇒CA14</p> <p>6⇒CA14</p>
<p>CA10. DID YOU SEEK ANY ADVICE OR TREATMENT FOR THE ILLNESS FROM ANY SOURCE?</p>	<p>Yes ..... 1</p> <p>No ..... 2</p> <p>DK ..... 8</p>	<p>2⇒CA12</p> <p>8⇒CA12</p>

<p><b>CA11. FROM WHERE DID YOU SEEK ADVICE OR TREATMENT?</b></p> <p><i>Probe:</i> ANYWHERE ELSE?</p> <p>Circle all providers mentioned, but do NOT prompt with any suggestions.</p> <p>Probe to identify each type of source.</p> <p>If unable to determine if public or private sector, write the name of the place.</p> <hr/> <p>(Name of place)</p>	<p>Public sector</p> <p>Govt. hospital ..... A Govt. health centre ..... B Govt. health post ..... C Village health worker ..... D Mobile / Outreach clinic ..... E Other public (specify) ..... H</p> <p>Private medical sector</p> <p>Private hospital / clinic ..... I Private physician ..... J Private pharmacy ..... K Mobile clinic ..... L Other private medical (specify) ..... O</p> <p>Other source</p> <p>Relative / Friend ..... P Shop ..... Q Traditional practitioner ..... R Sheikh ..... S Traditional Birth Attendant ..... T</p> <p>Other (specify) ..... X</p>	
<p><b>CA12. WAS (name) GIVEN ANY MEDICINE TO TREAT THIS ILLNESS?</b></p>	<p>Yes ..... 1 No ..... 2 DK ..... 8</p>	<p>2⇒CA14 8⇒CA14</p>
<p><b>CA13. WHAT MEDICINE WAS (name) GIVEN?</b></p> <p><i>Probe:</i> ANY OTHER MEDICINE?</p> <p>Circle all medicines given. Write brand name(s) of all medicines mentioned.</p> <hr/> <p>(Names of medicines)</p>	<p>Antibiotic</p> <p>Pill / Syrup ..... A Injection ..... B</p> <p>Anti-malarials ..... M</p> <p>Paracetamol / Panadol / Acetaminophen ... P Aspirin ..... Q Ibuprofen ..... R</p> <p>Other (specify) ..... X DK ..... Z</p>	
<p><b>CA14. Check AG2: Child aged under 3?</b></p> <p><input type="checkbox"/> Yes. ⇒ Continue with CA15</p> <p><input type="checkbox"/> No. ⇒ Go to Next Module</p>		
<p><b>CA15. THE LAST TIME (name) PASSED STOOLS, WHAT WAS DONE TO DISPOSE OF THE STOOLS?</b></p>	<p>Child used toilet / latrine ..... 01 Put / Rinsed into toilet or latrine ..... 02 Put / Rinsed into drain or ditch ..... 03 Thrown into garbage (solid waste) ..... 04 Buried ..... 05 Left in the open ..... 06</p> <p>Other (specify) ..... 96 DK ..... 98</p>	

MALARIA		ML
ML1. IN THE LAST TWO WEEKS, HAS (name) BEEN ILL WITH A FEVER AT ANY TIME?	Yes ..... 1 No ..... 2 DK ..... 8	2⇒Next Module 8⇒Next Module
ML2. AT ANY TIME DURING THE ILLNESS, DID (name) HAVE BLOOD TAKEN FROM HIS/HER FINGER OR HEEL FOR TESTING?	Yes ..... 1 No ..... 2 DK ..... 8	
ML3. DID YOU SEEK ANY ADVICE OR TREATMENT FOR THE ILLNESS FROM ANY SOURCE?	Yes ..... 1 No ..... 2 DK ..... 8	2⇒ML8 8⇒ML8
ML4. WAS (name) TAKEN TO A HEALTH FACILITY DURING THIS ILLNESS?	Yes ..... 1 No ..... 2 DK ..... 8	2⇒ML8 8⇒ML8
ML5. WAS (name) GIVEN ANY MEDICINE FOR FEVER OR MALARIA AT THE HEALTH FACILITY?	Yes ..... 1 No ..... 2 DK ..... 8	2⇒ML7 8⇒ML7
ML6. WHAT MEDICINE WAS (name) GIVEN?  <i>Probe:</i> ANY OTHER MEDICINE?  <i>Circle all medicines mentioned. Write brand name(s) of all medicines, if given.</i>  _____ (Name)	Anti-malarials: SP / Fansidar ..... A Chloroquine ..... B Amodiaquine ..... C Quinine ..... D Combination with Artemisinin ..... E  Other anti-malarial (specify) ..... H  Antibiotic drugs Pill / Syrup ..... I Injection ..... J  Other medications: Paracetamol/ Panadol /Acetaminophen. P Aspirin ..... Q Ibuprofen ..... R  Other (specify) ..... X DK ..... Z	
ML7. WAS (name) GIVEN ANY MEDICINE FOR THE FEVER OR MALARIA BEFORE BEING TAKEN TO THE HEALTH FACILITY?	Yes ..... 1 No ..... 2 DK ..... 8	1⇒ML9 2⇒ML10 8⇒ML10
ML8. WAS (name) GIVEN ANY MEDICINE FOR FEVER OR MALARIA DURING THIS ILLNESS?	Yes ..... 1 No ..... 2 DK ..... 8	2⇒ML10 8⇒ML10

<p>ML9. WHAT MEDICINE WAS (name) GIVEN?</p> <p><i>Probe:</i> ANY OTHER MEDICINE?</p> <p><i>Circle all medicines mentioned. Write brand name(s) of all medicines, if given.</i></p> <p>_____ (Name)</p>	<p>Anti-malarials:</p> <table> <tr><td>SP / Fansidar.....</td><td>A</td></tr> <tr><td>Chloroquine .....</td><td>B</td></tr> <tr><td>Amodiaquine.....</td><td>C</td></tr> <tr><td>Quinine .....</td><td>D</td></tr> <tr><td>Combination with Artemisinin .....</td><td>E</td></tr> </table> <p>Other anti-malarial (specify) _____ H</p> <p>Antibiotic drugs</p> <table> <tr><td>Pill / Syrup .....</td><td>I</td></tr> <tr><td>Injection .....</td><td>J</td></tr> </table> <p>Other medications:</p> <table> <tr><td>Paracetamol/ Panadol/ Acetaminophen. P</td></tr> <tr><td>Aspirin.....</td><td>Q</td></tr> <tr><td>Ibuprofen .....</td><td>R</td></tr> </table> <p>Other (specify) _____ X DK.....Z</p>	SP / Fansidar.....	A	Chloroquine .....	B	Amodiaquine.....	C	Quinine .....	D	Combination with Artemisinin .....	E	Pill / Syrup .....	I	Injection .....	J	Paracetamol/ Panadol/ Acetaminophen. P	Aspirin.....	Q	Ibuprofen .....	R	
SP / Fansidar.....	A																				
Chloroquine .....	B																				
Amodiaquine.....	C																				
Quinine .....	D																				
Combination with Artemisinin .....	E																				
Pill / Syrup .....	I																				
Injection .....	J																				
Paracetamol/ Panadol/ Acetaminophen. P																					
Aspirin.....	Q																				
Ibuprofen .....	R																				

ML10. Check ML6 and ML9: Anti-malarial mentioned (codes A - H)?

Yes.  $\Rightarrow$  Continue with ML11

No.  $\Rightarrow$  Go to Next Module

<p>ML11. HOW LONG AFTER THE FEVER STARTED DID (name) FIRST TAKE (name of anti-malarial from ML6 or ML9)?</p> <p><i>If multiple anti-malarials mentioned in ML6 or ML9, name all anti-malarial medicines mentioned.</i></p> <p><i>Record how long after the fever started the <u>first</u> anti-malarial was given.</i></p>	<table> <tr><td>Same day .....</td><td>0</td></tr> <tr><td>Next day .....</td><td>1</td></tr> <tr><td>2 days after the fever.....</td><td>2</td></tr> <tr><td>3 days after the fever.....</td><td>3</td></tr> <tr><td>4 or more days after the fever .....</td><td>4</td></tr> <tr><td>DK.....</td><td>8</td></tr> </table>	Same day .....	0	Next day .....	1	2 days after the fever.....	2	3 days after the fever.....	3	4 or more days after the fever .....	4	DK.....	8	
Same day .....	0													
Next day .....	1													
2 days after the fever.....	2													
3 days after the fever.....	3													
4 or more days after the fever .....	4													
DK.....	8													

**IMMUNIZATION**
**IM**

If immunization card(s) is/are available, copy the dates in IM3 for each type of immunization recorded on the card(s). IM6-IM16A are for registering vaccinations that are not recorded on the card(s). IM6-IM16A will only be asked when card(s) is/are not available.

IM1. DO YOU HAVE ONE OR MORE CARDS WHERE (name)'S VACCINATIONS ARE WRITTEN DOWN?  (If yes) MAY I SEE IT/ THEM PLEASE?		Yes, at least one card seen .....1 Yes, no cards seen .....2 No cards .....3			2⇒IM2A 3⇒IM2
IM1A. Observe and record the type of card(s)		Routine EPI Card .....A Child Health Days Card 2009 .....B Child Health Days Card 2010 .....C  Other (specify) .....X			A⇒IM3 B⇒IM3 C⇒IM3  X⇒IM3
IM2. DID YOU EVER HAVE A VACCINATION OR CHILD HEALTH DAYS CARD FOR (name)?		Yes .....1 No .....2			2⇒IM6
IM2A. DO OR DID YOU HAVE ONE OR MORE OF THE CARDS SHOWN HERE WHERE (name)'S VACCINATIONS ARE OR WERE WRITTEN DOWN? <i>Show the sample cards and record the response</i>		Routine EPI Card .....A Child Health Days Card 2009 .....B Child Health Days Card 2010 .....C Other (specify) .....X DK .....Y			A⇒IM6 B⇒IM6 C⇒IM6 X⇒IM6 Y⇒IM6
IM3. (a) COPY DATES FOR EACH VACCINATION FROM THE CARD. (b) WRITE '44' IN DAY COLUMN IF CARD SHOWS THAT VACCINATION WAS GIVEN BUT NO DATE RECORDED.		Date of Immunization			Card
		Day	Month	Year	A.Routine EPI Card. B.CHD 2009 C.CHD 2010 X.Other
BCG	BCG				A B C X
POLIO AT BIRTH	OPV0				A B C X
POLIO 1	OPV1				A B C X
POLIO 2	OPV2				A B C X
POLIO 3	OPV3				A B C X
DPT1	DPT1				A B C X
DPT2	DPT2				A B C X
DPT3	DPT3				A B C X
MEASLES	MEASLES				A B C X
VITAMIN A (MOST RECENT)	VITA				A B C X
IM4. Check IM3. Are all vaccines (BCG to Measles) recorded? <input type="checkbox"/> Yes ⇒ Continue with IM18 <input type="checkbox"/> No ⇒ Continue with IM5					

<p><b>IM5. IN ADDITION TO WHAT IS RECORDED ON THIS/ THESE CARDS, DID (name) RECEIVE ANY OTHER VACCINATIONS – INCLUDING NATIONAL IMMUNIZATION DAYS AND CHILD HEALTH DAYS?</b></p> <p>Record ‘Yes’ only if respondent mentions vaccines shown in the table above.</p>	<p>Yes.....1 (Probe for vaccinations and write ‘66’ in the corresponding day column for each vaccine mentioned. Then skip to IM18)</p> <p>No .....2 DK.....8</p>	<p>2⇒IM18 8⇒IM18</p>
<p><b>IM6. HAS (name) EVER RECEIVED ANY VACCINATIONS TO PREVENT HIM/HER FROM GETTING DISEASES, INCLUDING NATIONAL IMMUNIZATION DAYS AND CHILD HEALTH DAYS?</b></p>	<p>Yes.....1 No .....2 DK.....8</p>	<p>2⇒IM18 8⇒IM18</p>
<p><b>IM7. HAS (name) EVER RECEIVED A BCG VACCINATION AGAINST TUBERCULOSIS – THAT IS, AN INJECTION USUALLY IN THE LEFT ARM OR SHOULDER THAT USUALLY CAUSES A SCAR?</b></p>	<p>Yes.....1 No .....2 DK.....8</p>	<p>2⇒IM8 8⇒IM8</p>
<p><b>IM7A. DID (name) (OR THE PERSON WITH (name) AT THE TIME) RECEIVE FREE ORS PACKET(S) SUCH AS THIS AT THE TIME OF THIS VACCINATION?</b></p> <p><i>Show sample ORS packet</i></p>	<p>Yes.....1 No .....2 DK.....8</p>	
<p><b>IM8. HAS (name) EVER RECEIVED ANY “VACCINATION DROPS IN THE MOUTH” TO PROTECT HIM/HER FROM GETTING DISEASES – THAT IS, POLIO?</b></p> <p><i>Show and probe:</i> THE VACCINATION IS MOST COMMONLY GIVEN IN A VIAL SUCH AS THIS</p>	<p>Yes.....1 No .....2 DK.....8</p>	<p>2⇒IM11 8⇒IM11</p>
<p><b>--=IM8A. DID (name) (OR THE PERSON WITH (name) AT THE TIME) RECEIVE FREE ORS PACKET(S) SUCH AS THIS AT THE TIME OF THIS VACCINATION?</b></p> <p><i>Show sample ORS packet</i></p>	<p>Yes.....1 No .....2 DK.....8</p>	
<p><b>IM9. WAS THE FIRST POLIO VACCINE RECEIVED IN THE FIRST TWO WEEKS AFTER BIRTH OR LATER?</b></p>	<p>First two weeks .....1 Later .....2 DK .....8</p>	
<p><b>IM10. HOW MANY TIMES WAS THE POLIO VACCINE RECEIVED?</b></p>	<p>Number of times .....__</p>	
<p><b>IM11. HAS (name) EVER RECEIVED A DPT VACCINATION – THAT IS, AN INJECTION USUALLY IN THE RIGHT THIGH – TO PREVENT HIM/HER FROM GETTING TETANUS, WHOOPING COUGH, DIPHTHERIA?</b></p> <p><i>Probe by indicating that DPT vaccination is sometimes given at the same time as Polio</i></p>	<p>Yes.....1 No .....2 DK.....8</p>	<p>2⇒IM16 8⇒IM16</p>
<p><b>IM11A. DID (name) (OR THE PERSON WITH (name) AT THE TIME) RECEIVE FREE ORS PACKET(S) SUCH</b></p>	<p>Yes.....1</p>	

AS THIS AT THE TIME OF THIS VACCINATION? <i>Show sample ORS packet</i>	No ..... 2 DK ..... 8	
IM12. HOW MANY TIMES WAS A DPT VACCINE RECEIVED?	Number of times .....	
IM16. HAS (name) EVER RECEIVED A MEASLES INJECTION – THAT IS, A SHOT USUALLY IN THE RIGHT ARM OR SHOULDER AT THE AGE OF <b>9</b> MONTHS OR OLDER - TO PREVENT HIM/HER FROM GETTING MEASLES?	Yes..... 1 No ..... 2 DK ..... 8	2⇒IM18 8⇒IM18
IM16A. DID (name) (OR THE PERSON WITH (name) AT THE TIME) RECEIVE FREE ORS PACKET(S) SUCH AS THIS AT THE TIME OF THIS VACCINATION? <i>Show sample ORS packet</i>	Yes..... 1 No ..... 2 DK ..... 8	
IM18. HAS (name) RECEIVED A VITAMIN A DOSE LIKE THIS WITHIN THE LAST 6 MONTHS? <i>Show capsule(s)</i>	Yes..... 1 No ..... 2 DK ..... 8	
IM19. PLEASE TELL ME IF (name) HAS PARTICIPATED IN ANY OF THE FOLLOWING NATIONAL IMMUNIZATION DAYS AND CHILD HEALTH DAYS:  [A] Jan/Feb <b>2009 CHDs</b> (Vit A, measles & polio)  [B] <b>JUNE 2009 NIDs</b> (Polio)  [C] JULY 2009 NIDs  [D] Jul/Aug <b>2009 CHDs</b> ( <b>VIT A, MEASLES &amp; POLIO</b> )  [E] June <b>2010 CHDs</b> ( <b>VIT A, MEASLES &amp; POLIO</b> )  [F] SEPT 2010 NIDs (Polio) [G] OCTOBER 2010 NIDs (Polio) [H] December <b>2010 CHDs</b> ( <b>VIT A, MEASLES &amp; POLIO</b> )	Y   N   DK	
	Jan/Feb, 2009 CHDs ..... 1 2 8	
	Jun 2009 NIDs ..... 1 2 8	
	Jul, 2009 NIDs ..... 1 2 8	
	Nov/Dec, 2009 CHDs ..... 1 2 8	
	Jun, 2010 CHDs ..... 1 2 8	
	Sept, <b>2010 NIDs</b> ..... 1 2 8	
	Oct, <b>2010 NIDs</b> ..... 1 2 8	
	Dec, 2010 CHDs ..... 1 2 8	
IM20. CHECK IM19: DID CHILD PARTICIPATE IN THE DECEMBER 2010 CHDs (IM19[H] = 1)? <input type="checkbox"/> YES (IM19[H]=1) ⇒ GO TO IM21 <input type="checkbox"/> NO (IM19[H]=2 <u>OR</u> 8) ⇒ GO TO UF13		
IM21. DID (name) (OR THE PERSON WITH (name) AT THE TIME) RECEIVE FREE ORS PACKET(S) SUCH AS THIS IN THE DECEMBER 2010 CHILD HEALTH DAYS? <i>Show sample ORS packet</i>	Packet(s) received ..... 1 No packet(s) received ..... 2 DK ..... 8	2⇒UF13 8⇒UF13

**IM22. CHECK CA1: DID CHILD HAVE AN EPISODE OF DIARRHOEA IN THE PAST 2 WEEKS (CA1 = 1)?**

YES (CA1=1)  $\Rightarrow$  GO TO IM24  
 NO (CA1=2 OR 8)  $\Rightarrow$  GO TO IM23

IM23. SINCE THE RECEIPT OF THE FREE ORS PACKET(S) IN DECEMBER, HAS ( <i>name</i> ) HAD ANY EPISODE OF DIARRHOEA?	Yes, at least once ..... 1 No episodes ..... 2 DK ..... 8	2 $\Rightarrow$ UF13 8 $\Rightarrow$ UF13
IM24. WAS/WERE THE FREE ORS PACKET(S) RECEIVED IN DECEMBER USED TO TREAT ( <i>name</i> ) FOR DIARRHOEA?	Used to treat diarrhoea ..... 1 Not used to treat ..... 2 DK ..... 8	

UF13. Record the time.

Hour and minutes ..... : \_\_\_\_

**UF14. Is the respondent the mother or caretaker of another child age 0-4 living in this household?**

Yes.  $\Rightarrow$  Go to the next QUESTIONNAIRE FOR CHILDREN UNDER FIVE to be administered to the same respondent  
 No.  $\Rightarrow$  End the interview with this respondent by thanking him/her for his/her cooperation.

Check to see if there are other woman's or under-5 questionnaires to be administered in this household.

Move to another woman's or under-5 questionnaire.

**Interviewer's Observations**

**Field Editor's Observations**

**Supervisor's Observations**

