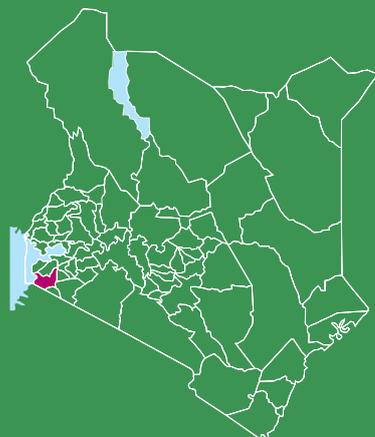


# Kenya, Migori County



Monitoring the situation of children and women



## Multiple Indicator Cluster Survey 2011

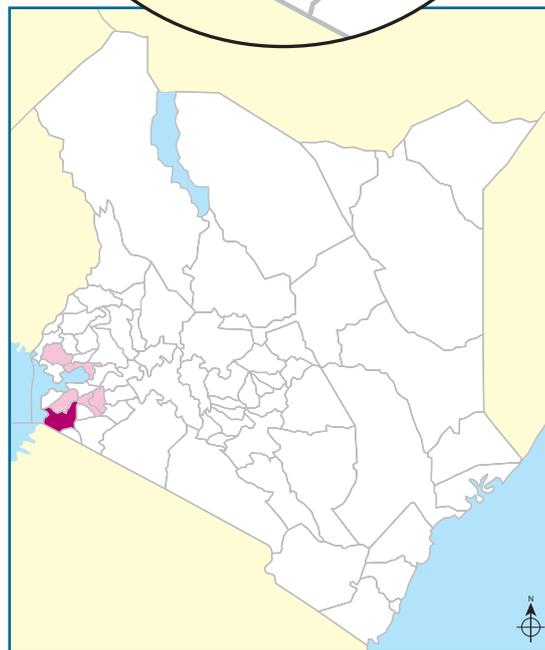
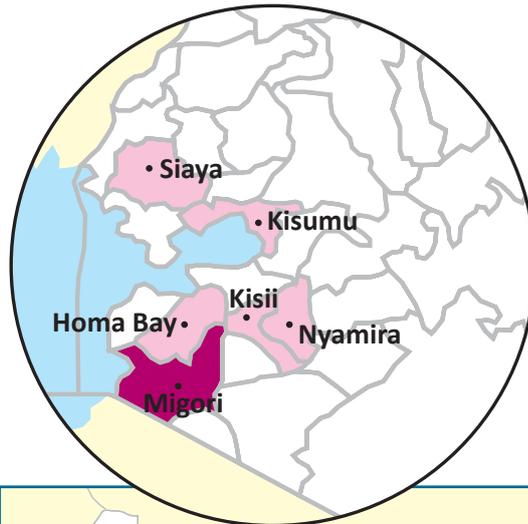


Kenya National Bureau  
of Statistics



# Migori County

Multiple Indicator Cluster Survey 2011



July, 2013



The Migori County Multiple Indicator Cluster Survey (MICS) was carried out in 2011 by Kenya National Bureau of Statistics in collaboration with County and Provincial administration. 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 Migori County MICS was conducted as part of the fourth global round of MICS surveys (MICS4). MICS 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). In Kenya, this information is important to guide the planning and implementation of new development plans targeting the new administrative county-levels of governance

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**Migori County**

Multiple Indicator Cluster Survey  
2011

Kenya National Bureau of Statistics  
and  
UNICEF, United Nations Children’s Fund

June, 2013

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## List of Abbreviations

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AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
BCG	Bacillus Calmette Guerin(Tuberculosis)
C-section	Caesarian Section
CSPro	Census and Survey Processing System
DPT	Diphtheria Pertussis Tetanus
DPT-HeB-Hib	DiphtheriaPertusis Tetanus Hepatitis B Haemophyllus Influenza B
EA	Enumeration Area
ECDI	Early Childhood Development Index
EPI	Expanded Programme on Immunization
ERS	Economic Recovery Strategy
FGM/C	Female Genital Mutilation/ Cutting
GOK	Government of Kenya
GPI	Gender Parity Index
HIV	Human Immunodeficiency Virus
IDD	Iodine Deficiency Disorders
IPTp	Intermittent Preventive Treatment of Malaria in Pregnancy
IRS	Indoor Residual Spraying
ITN	Insecticide Treated Net
IUD	Intrauterine Device
IYCF	Infant and Young Child Feeding Practices
JMP	Joint Monitoring Programme
KAIS	Kenya AIDS Indicator Survey
KDHS	Kenya Demographic Health Survey
KEPI	Kenya Expanded Programme on Immunization
KESSP	Kenya Education Sector Support Programme
KNBS	Kenya National Bureau of Statistics
LAM	Lactational Amenorrhea Method
LLIN	Long Lasting Insecticide Treated Nets
MDG	Millennium Development Goals
MICS	Multiple Indicator Cluster Survey
MoH	Ministry of Health
MOMS	Ministry of Medical Services
MOPHS	Ministry of Public Health and Sanitation
NAR	Net Attendance Rate
NPA	National Plan of Action
ORT	Oral Rehydration Therapy
OVC	Orphans and Vulnerable Children
PMTCT	Prevention of Mother to Child Transmission
ppm	Parts Per Million
PRS	Poverty Reduction Strategy
PPS	Probability proportional to Size
PSU	Primary Sampling Units
RHF	Recommended Home Made Fluids
SP	Sulphadoxine- Pyrimethamine
SPSS	Statistical Package for Social Sciences
STIs	Sexually Transmitted Infections
TBA	Traditional Birth Attendant
TFR	Total Fertility Rate
U5MR	Under 5 mortality
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
VIP	Ventilated Improved Latrine
WFFC	World Fit For Children
WHO	World Health Organization
WSC	World Summit for Children

## Foreword

---

The lives of children and women have improved significantly in the recent past, both at the global and national level. In spite of this, statistics and data presented at national levels often conceal disparities evident among the poor households in terms of access to basic services such as health care, education and protection. In addition, urban residents often present higher levels of achievement in most of the indicators compared to their rural counterparts. This may be attributed to their proximity to essential services ranging from infrastructure to provision of improved services like electricity and piped water.

The Multiple Indicator Cluster Survey (MICS) 2011 was conducted to provide comprehensive and disaggregated data to fill the existing gap, particularly at the county level. The survey, which was the first of its kind to be conducted at the devolved level, was a follow-up to the MICS 2008 conducted in 13 districts in Eastern Province and the 2009 Mombasa Informal Settlement Survey. The objective of Migori MICS 2011 was to provide lower-level estimates relating to children and women residing in the six counties of the region. Particular emphasis was on reproductive health, child health and mortality, nutrition, child protection, childhood development, water and sanitation, hand washing practices, education, disability and HIV/AIDS, and orphanhood.

The results of Migori MICS 2011 presented in this Report will therefore provide requisite baseline information and facilitate evidence-based planning and programming by policymakers and stakeholders in the development sphere.

This Report is a culmination of concerted efforts of various organizations and individuals. I acknowledge the technical and financial assistance from the United Nations Children's Fund (UNICEF). I sincerely applaud the UNICEF Kenya Country Office staff, lead by Dr. Robert Ndugwa - Research and Evaluation Specialist, for diligently managing and availing technical oversight of both the survey and report production. I also commend the hard work and dedication of Kenya National Bureau of Statistics (KNBS) staff, under the capable leadership of Mr. Macdonald Obudho – Director of Population and Social Statistics and Mr. James Gatungu- Director Production Statistics in the planning and implementation of the Survey.

I remain indebted to households for generously and voluntarily responding to survey questions and allowing the survey teams to measure the weights and heights of children below 5 years of age.

I urge all stakeholders to use the information presented in this report to impact positively on the lives of our people.



**Zachary Mwangi**  
**Director General**  
Kenya National Bureau of Statistics

# Executive Summary

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The Migori County Multiple Indicator Cluster Survey (MICS) is a representative sample survey drawn using the 2009 Kenya Population and Housing Census. The urban and rural areas within Migori were identified as the main sampling strata and the sample was selected in two stages. The primary sampling units (PSUs) were the enumeration areas (EAs) while the households were the ultimate units. A total of 50 EAs were sampled using the Probability Proportional to Size (PPS) sampling methodology. After a household listing was carried out, a systematic sample of 25 households was drawn in each sample enumeration area. Information from a total of 1159 households was collected from 5,333 household members with 2,621 males and 2,711 females. About 50 per cent of the sampled households' population is below 15 years, 47 per cent are aged between 15-64 years and 3 per cent are aged above 65 years. The survey was implemented by the Kenya National Bureau of Statistics (KNBS) with support from UNICEF Kenya. The survey provides valuable information on the situation of children and women in Migori County, and was largely based on the need for high quality and sufficiently disaggregated county level MICS data as Kenya transitions from a central to a devolved governance structure in 2013.

The summary of the findings from the survey are presented below.

## Child Mortality

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For the ten year period preceding the survey, the neonatal, infant and under-five mortality rates are 27, 76 and 123 deaths per 1000 live births respectively. The estimated child mortality rate is 50 deaths per 1000 children surviving to the first birthday in the same period.

## Nutritional Status, Breastfeeding and Low Birth weight

---

According to WHO standards, approximately 1 in 6 (17 per cent) of children under age five in Migori County are moderately underweight whilst 3 per cent are classified as severely underweight.

About one in three (33 per cent) are moderately stunted or too short for their age whilst about 1 in 7 (14 per cent) are severely stunted. 6 per cent are moderately wasted or too thin for their height, whilst approximately 5 per cent are classified as overweight.

Only 2 out of every 5 (40 per cent) of babies in Migori County are promptly breastfed for the first time (within one hour of birth), and only 36 per cent of children aged less than six months are being exclusively breastfed. Overall, 56 per cent of children aged less than 2 years are appropriately fed for their age. It is noteworthy that despite the risk of contamination, bottle feeding is still occurring in Migori County, with 21 per cent of children aged 0-23 months reported to have been fed using a bottle with a nipple.

Only 57 per cent of children in Migori County are weighed at birth and it is estimated that 4 per cent are born with low birth weight.

## Iodization and Vitamin A supplementation

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A large majority (91 per cent) of households in Migori County consume salt containing the recommended levels of iodine (15 PPM).

Within the six months prior to the MICS, a little more than half (51 per cent) of children aged 6-59 months received a high dose Vitamin A supplement (Table NU.10).

## Immunization

---

Seventy one (71) per cent of children in Migori County receive the recommended vaccinations by their first birthday. Notably, a small proportion (2 per cent) of the children has not received any of the vaccines. It is noteworthy that the proportion of children who have received the yellow fever vaccine is lower than for all other vaccines. 55 per cent of women who have had a live birth in the last 2 years are protected against tetanus.

## Care of illness

---

About 13 per cent of under five children had diarrhoea in the two weeks preceding the survey. Only one in four (25 per cent) of children with diarrhoea receive oral rehydration solutions (ORS) or other recommended homemade fluids.

Eight per cent of children aged 0-59 months were reported to have had symptoms of pneumonia during the two weeks preceding the survey. Forty seven (49) per cent of children with suspected pneumonia are taken to an appropriate provider. Only 47 per cent of under-5 children with suspected pneumonia had received an antibiotic during the two weeks prior to the survey.

## Malaria prevention

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The level of net ownership in Migori County is high with close to 90 per cent of households having at least one insecticide treated net. Seventy eight (78) per cent of children under the age of five slept under any type mosquito net the night prior to the survey. 77 per cent of children slept under an insecticide treated net. Similarly, 81 per cent of pregnant women slept under any mosquito net the night prior to the survey and 79 per cent slept under an insecticide treated net.

Twenty per cent of under five children were ill with fever in the two weeks prior to the survey. Overall, 2 out of 5 (40 per cent) of children who have had fever in the last two weeks are treated with artemisinin combination drugs (the recommended first line antimalarial). 43 per cent of children receive anti-malarial drugs within 24 hours or on the next day after onset of symptoms

Forty five per cent of women who gave birth in the two years preceding the survey reported receiving at least one dose of sulphadoxine –pyrimethamine (SP) for intermittent preventive therapy (IPT) of malaria in pregnancy whilst only 33 per cent received the recommended IPT dose (2 or more times).

## Solid fuel use

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The majority (98 per cent) of households in Migori County used solid fuels for cooking with the most common being charcoal and wood.

## Water and sanitation

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Close to thirty two (32) per cent of Migori households use drinking water from an improved source, which is lower than the Nyanza Provincial MICS average of 48 per cent. In Migori, the most frequently used improved drinking water source is tube well/borehole (9 per cent) whilst the most commonly used unimproved source of drinking water is surface water (42 per cent). More than half (56 per cent) of those who use unimproved drinking water sources use an appropriate water treatment method, most commonly adding bleach/chlorine (43 per cent).

Twenty two (22) per cent of the population use improved sanitation facilities. Overall, pit latrines with slabs are most commonly used improved sanitation facility (15 per cent) whilst pit latrines without slab/open pits are the most commonly used unimproved sanitation facilities (52 per cent). 26 per cent of the household populations have no sanitation facilities.

In 59 per cent of cases, stool of children age 0-2 years is disposed safely. 4 per cent of households have designated hand-washing places observed and soap was present in only 3 per cent of the households. In households where the designated hand-washing place is not observed, 76 per cent have soap anywhere in the dwelling.

## Reproductive health

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The total fertility rate is 5.6 children per woman. The adolescent birth rate is 230 births per 1000 women during the same period. ASFR is highest in the 20 to 24 age group with 260 births per 1000 women. Generally, fertility seems to decline in all age groups over the last decade before the survey.

Teenage pregnancy (the proportion of women aged 15-19 years who have begun childbearing) is 42 per cent and is higher than the provincial MICS of 34 per cent. At least one in ten (10 per cent) women aged 15-49 years have had a live birth before age 15 while almost half (47 per cent) of women aged 20-49 years have had a live birth before age 18.

About 36 per cent of currently married or in union women use modern contraceptive methods while 7 per cent use traditional methods. Injectable contraceptives are by far the most popular method and are used by at least one in five (21 per cent) married women.

Coverage of antenatal care by any skilled personnel is relatively high with 87 per cent of women who gave birth in the two years preceding the survey receiving antenatal care, majority of whom received care from a nurse or midwife (52 per cent). Almost nine in ten mothers (88 per cent) received antenatal care more than once whilst half of the mothers (50 per cent) received antenatal care at least four times.

Less than half (45 per cent) of births were delivered in a health facility and 42 per cent were delivered by skilled personnel in the two years preceding the survey.

## Childhood development

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In Migori County, 40 per cent of children aged 36-59 months are attending pre-school. Presence of learning materials and involvement of adults with children in learning activities is important. About 33 per cent of under-five children had an adult household member engaged in more than four learning activities during the 3 days preceding the survey. 5 per cent of children are living in households where at least 3 children's books are present. Physical growth, literacy and numeracy skills, socio-emotional development and readiness to learn are vital domains of a child's overall development. Only 22 per cent of children aged 36-59 months are developmentally on track.

## Literacy and Education

---

In Migori County, among females age 15-24 only 83 per cent of women are literate and the levels vary

by place of residence, age and household wealth level. Only 82 per cent of children who are currently attending the first grade of primary school were attending pre-school the previous year. Primary school completion rate is 70 per cent but transition to secondary school is 52 per cent. The net primary school attendance rate is 72 per cent, while that of secondary school stands at 12 per cent.

## Child protection

---

A half (50 per cent) of children under five years who live in Migori County have their births registered. 1 out of 10 mothers/caretakers state they have knowledge of birth registration though they did not register their children's birth.

Almost half (49 per cent) aged 5-14 years in Migori are engaged in child labour. 59 per cent of the children aged 2-14 years are subjected to at least one form of violent discipline method by their mothers/caretakers while 43 per cent are subjected to psychological aggression.

Seventeen per cent of women aged 15-49 years are married before age 15, and 31 per cent of women aged 20-24 years are married before their 18th birthday. 1 out of 3 (31 per cent) adolescent girls of ages 15-19 years old is currently married or in union.

## Female genital mutilation/cutting (FGM/C) and domestic violence

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85 per cent of women aged 15-49 years in Migori County have heard about FGM/C and 21 per cent had some form of FGM/C. 6 per cent of women aged 15-49 years believe that the practice should be continued.

## Domestic violence

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68 per cent of women aged 15-49 years women feel that a husband/partner is justified in beating his wife/partner in various circumstances. For example, they justify wife beating 'if she neglects the children' (47 per cent) or 'if she goes without' (38 per cent).

## **HIV and AIDS**

---

Almost all women in Migori County have heard of AIDS, however, only 55 per cent have comprehensive knowledge of HIV prevention methods and transmission. Knowledge of mother-to-child transmission of HIV is near universal (95 per cent) however, only 46 per cent know of all three ways of transmission.

Stigma and discrimination are still fairly high in Migori County as only 1 in 10 (10 per cent) women expressed accepting attitudes on all four indicators on attitudes toward people living with HIV namely: would care for family member sick with AIDS; would buy fresh vegetables from a vendor who was HIV positive; thinks that a female teacher who is HIV positive should be allowed to teach in school; and would not want to keep HIV status of a family member a secret.

Knowledge of a place for HIV testing is nearly universal (95 per cent) however, only 53 per cent of women have ever been tested. Although 79 per cent of the women who gave birth in the last two years preceding the survey received HIV counselling during antenatal care, 86 per cent of these were offered an HIV test and were tested for HIV.

About 4 per cent of women report having sex with more than one partner in the year preceding the survey.

## **Orphans and vulnerable children**

---

Fourteen per cent of children below 18 years are not living with any biological parent and about 1 out of 5 (19 per cent) have one or both parents dead. About 6 per cent of children aged 10-14 years have lost both parents and 97 per cent of them are currently attending school compared to 99 per cent of non-orphans.

## Summary Table of Findings

Multiple Indicator Cluster Surveys (MICS) and Millennium Development Goals (MDG) Indicators, Migori County, 2011.

Topic	MICS4 Indicator Number	MDG Indicator Number	Indicator	Value and Units	
<b>SAMPLE</b>					
Households			Households interviewed	1123	number
Women			Number of women interviewed	952	number
Children			Number of children under 5 years with completed information	975	number
<b>CHILD MORTALITY</b>					
Child mortality	1.1	4.1	Under-five mortality rate	123per thousand	
	1.2	4.2	Infant mortality rate	76per thousand	
	1.3		Neonatal mortality rate	27 per thousand	
	1.4		Post neonatal mortality rate	49 per thousand	
	1.5		Child mortality rate	50 per thousand	
<b>NUTRITION</b>					
Nutritional status		1.8	Underweight prevalence		
	2.1a		Moderate and Severe (- 2 SD)	17.1 per cent	
	2.1b		Severe (- 3 SD)	2.8 per cent	
			Stunting prevalence		
	2.2a		Moderate and Severe (- 2 SD)	32.3 per cent	
	2.2b		Severe (- 3 SD)	13.9per cent	
			Wasting prevalence		
	2.3a		Moderate and Severe (- 2 SD)	6.4 per cent	
	2.3b		Severe (- 3 SD)	1.3 per cent	
Breastfeeding and infant feeding	2.4		Children ever breastfed	96.2 per cent	
	2.5		Early initiation of breastfeeding	39.6 per cent	
	2.6		Exclusive breastfeeding under 6 months	35.6 per cent	
	2.7		Continued breastfeeding at 1 year	78.9 per cent	
	2.8		Continued breastfeeding at 2 years	50.5 per cent	
	2.9		Predominant breastfeeding under 6 months	56.3 per cent	
	2.10		Duration of breastfeeding	21.0 per cent	
	2.11		Bottle feeding	21.0 per cent	
	2.13		Minimum meal frequency	42. 8 per cent	
	2.14		Age-appropriate breastfeeding	56.4 per cent	
	2.15		Milk feeding frequency for non-breastfed children	40.7 per cent	

Topic	MICS4 Indicator Number	MDG Indicator Number	Indicator	Value and Units
Salt iodization	2.16		Iodized salt consumption	91.2 per cent
Vitamin A	2.17		Vitamin A supplementation (children under age 5)	50.6 per cent
Low birth weight	2.18		Low-birthweight infants	4.4 per cent
	2.19		Infants weighed at birth	57.1 per cent
<b>CHILD HEALTH</b>				
Vaccinations	3.1		Tuberculosis immunization coverage	96.7 per cent
	3.2		Polio immunization coverage	85.4 per cent
	3.3		Immunization coverage for diphtheria, pertussis and tetanus (DPT)	80.0 per cent
	3.4	4.3	Measles immunization coverage	88.2 per cent
Tetanus toxoid	3.7		Neonatal tetanus protection	55.1 per cent
Care of illness	3.8		Oral rehydration therapy with continued feeding	58.9 per cent
	3.9		Care seeking for suspected pneumonia	49.2 per cent
	3.10		Antibiotic treatment of suspected pneumonia	47.3 per cent
Solid fuel use	3.11		Solid fuels	98.2 per cent
Malaria	3.12		Household availability of insecticide-treated nets (ITNs)	89.9 per cent
	3.13		Households protected by a vector control method	94.9 per cent
	3.14		Children under age 5 sleeping under any mosquito net	77.5 per cent
	3.15	6.7	Children under age 5 sleeping under insecticide-treated nets (ITNs)	76.7 per cent
	3.17		Antimalarial treatment of children under 5 the same or next day	43.1 per cent
	3.18	6.8	Antimalarial treatment of children under age 5	53.4 per cent
	3.19		Pregnant women sleeping under insecticide-treated nets (ITNs)	79.1 per cent
	3.20		Intermittent preventive treatment for malaria	32.7 per cent
<b>WATER AND SANITATION</b>				
Water and sanitation	4.1	7.8	Use of improved drinking water sources	31.7 per cent
	4.2		Water treatment	55.8 per cent
	4.3	7.9	Use of improved sanitation facilities	10.0 per cent
	4.4		Safe disposal of child's faeces	59.2 per cent
	4.6		Availability of soap	79.1 per cent
<b>REPRODUCTIVE HEALTH</b>				
Contraception and unmet need	5.1	5.4	Adolescent birth rate	230 per 1000
	5.2		Early childbearing	49.5 per cent
	5.3	5.3	Contraceptive prevalence rate	43.0 per cent

Topic	MICS4 Indicator Number	MDG Indicator Number	Indicator	Value and Units
Maternal and new-born health		5.5	Antenatal care coverage	
	5.5a		At least once by skilled personnel	87.1 per cent
	5.5b		At least four times by any provider	49.8 per cent
	5.6		Content of antenatal care	69.7 per cent
	5.7	5.2	Skilled attendant at delivery	42.4 per cent
	5.8		Institutional deliveries	44.6 per cent
	5.9		Caesarean section	2.7 per cent
<b>CHILD DEVELOPMENT</b>				
Child development	6.1		Support for learning	32.9 per cent
	6.2		Father's support for learning	54.0 per cent
	6.3		Learning materials: children's books	4.9 per cent
	6.4		Learning materials: playthings	67.8 per cent
	6.5		Inadequate care	72.2 per cent
	6.6		Early child development index	21.7 per cent
	6.7		Attendance to early childhood education	40.3 per cent
<b>EDUCATION</b>				
Literacy and education	7.1	2.3	Literacy rate among young women	82.6 per cent
	7.2		School readiness	82.2 per cent
	7.3		Net intake rate in primary education	28.1 per cent
	7.4	2.1	Primary school net attendance ratio (adjusted)	72.0 per cent
	7.5		Secondary school net attendance ratio (adjusted)	11.8 per cent
	7.6	2.2	Children reaching last grade of primary	88.7 per cent
	7.7		Primary completion rate	69.5 per cent
	7.8		Transition rate to secondary school	52.0 per cent
	7.9		Gender parity index (primary school)	1.02 ratio
	7.10		Gender parity index (secondary school)	2.0 ratio
<b>CHILD PROTECTION</b>				
Birth registration	8.1		Birth registration	52.4 per cent
Child labour	8.2		Child labour	48.8 per cent
	8.3		School attendance among child labourers	98.1 per cent
	8.4		Child labour among students	49.4 per cent
Child discipline	8.5		Violent discipline	90.9 per cent

Topic	MICS4 Indicator Number	MDG Indicator Number	Indicator	Value and Units
Early marriage and polygyny	8.6		Marriage before age 15	17.0 per cent
	8.7		Marriage before age 18	56.6 per cent
	8.8		Young women age 15-19 currently married or in union	30.6 per cent
	8.9		Polygyny	0.0 per cent
			Spousal age difference	
	8.10a		Women age 15-19	17.8 per cent
	8.10b		Women age 20-24	21.5 per cent
Female genital mutilation/cutting	8.11		Approval for female genital mutilation/cutting (FGM/C)	5.6 per cent
	8.12		Prevalence of female genital mutilation/cutting (FGM/C) among women	20.6 per cent
Domestic violence	8.14		Attitudes towards domestic violence	67.5 per cent
<b>HIV/AIDS, SEXUAL BEHAVIOUR, AND ORPHANED AND VULNERABLE CHILDREN</b>				
HIV/AIDS knowledge and attitudes	9.1		Comprehensive knowledge about HIV prevention	54.7 per cent
	9.2	6.3	Comprehensive knowledge about HIV prevention among young people	55.3 per cent
	9.3		Knowledge of mother-to-child transmission of HIV	45.9 per cent
	9.4		Accepting attitude towards people living with HIV	10.3 per cent
	9.5		Women who know where to be tested for HIV	94.7 per cent
	9.7		Sexually active young women who have been tested for HIV and know the results	40.7 per cent
	9.8		HIV counselling during antenatal care	79.4 per cent
	9.9		HIV testing during antenatal care	77.3 per cent
Sexual behaviour	9.10		Young women who have never had sex	38.7 per cent
	9.11		Sex before age 15 among young women	32.0 per cent
	9.12		Age-mixing among sexual partners	15.0 per cent
	9.13		Sex with multiple partners	3.9 per cent
	9.15		Sex with non-regular partners	14.3 per cent
Orphaned children	9.17		Children's living arrangements	13.9 per cent
	9.18		Prevalence of children with at least one parent dead	19.2 per cent

# I. Introduction

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## Background

This report is based on the Migori Multiple Indicator Cluster Survey conducted in 2011 by the KNBS and UNICEF. The survey provides valuable information on the situation of children and women in Migori County, 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 subnational 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.”

Kenya is committed to improving the welfare of its people particularly women and children who are more vulnerable to social-economic hardships. In regard to children, the Government of Kenya (GOK) formulated the National Plan of Action (NPA) for children in 1992 soon after the World Summit for Children (WSC) which was held in 1990. The main objective of this programme was to identify issues affecting children and the strategies to address them. Measuring indicators of progress towards declared goals through proper monitoring and evaluation of projects/programmes and other interventions e.g. emergency response and humanitarian assistance, are vital components of the NPA.

Proper monitoring and evaluation of targeted projects and programmes by the government and development partners requires a wide range of data to track progress towards achievement of desired outcomes. In this respect, MICS data from the county will be helpful in appraising national programme such as Poverty Reduction Strategy (PRS), Economic Recovery Strategy (ERS) and Kenya Education Sector Support Programme (KESSP) 2005-2010 among other programmes. The MICS findings also fit into an overall plan to assess the Millennium Development Goals as the target year 2015 approaches, the World Fit for Children goals, the UNICEF Country Programme, UN Development Assistance Framework, and reporting on the Convention on the Rights of the Child and the Convention on the Elimination of All Forms of Discrimination against Women.

The GOK /UNICEF programme has a sizeable component of production of high quality and sufficiently disaggregated data for effective child friendly policy formulation and programme implementation. This final report presents the results of the indicators and topics covered in the survey.

## Survey Objectives

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

- To provide up-to-date information for assessing the situation of children and women in Migori County;
- 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 Migori County 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.

## II. Sample and Survey Methodology

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### Sample Design

The sample for the Migori County Multiple Indicator Cluster Survey (MICS) was designed to provide estimates for a large number of indicators on the situation of children and women at county level, for urban and rural area. The urban and rural areas within Migori County were identified as the main sampling strata and the samples were selected in two stages. Therefore, to attain the desired sample size, a two-stage stratified sampling design was applied. The primary sampling units (PSUs) for the survey were the recently created enumeration areas (EAs) based on the 2009 Kenya Population and Housing Census while the households were the ultimate units. Within each stratum, a specified number of census enumeration areas were selected systematically with probability proportional to size (PPS). After a household listing was carried out within the selected enumeration areas, a systematic sample of 25 households was drawn in each sample enumeration area. In total there were 50 enumeration areas (clusters) in Migori County. The sample was stratified by urban and rural areas, and is not self-weighting. For reporting county 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 questionnaires included the following modules:

The Household Questionnaire included the following modules:

- Household Listing Form
- Education
- Water and Sanitation
- Household Characteristics
- Insecticide Treated Nets
- Indoor Residual Spraying
- Child Labour
- Child Discipline
- Handwashing
- Salt Iodization
- Child disability
- Orphans and vulnerable children

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
- Child Mortality
- Planning of the last pregnancy
- Maternal and New-born Health

- Illness Symptoms
- Contraception
- Female Genital Mutilation/Cutting
- Attitudes Towards Domestic Violence
- Marriage/Union
- Sexual Behaviour
- HIV/AIDS

The Questionnaire for Children Under Five was administered to mothers or caretakers of children under 5 years of age<sup>1</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
- Birth Registration
- Early Childhood Development
- Breastfeeding
- Care of Illness
- Malaria
- Immunization
- Anthropometry
- Vitamin A

The questionnaires are based on the MICS4 model questionnaire.<sup>2</sup> From the MICS4 model English version, the questionnaires were translated into Swahili and Luo, other local languages spoken in Migori County and back-translated to ensure that the meaning of the translations remained the same. Based on the results of the back-translations, adjustments were made to the wording and translation of the questionnaires. A copy of the MICS questionnaires used in Migori County is provided in Appendix F.

In addition to the administration of questionnaires, fieldwork teams tested the salt used for cooking in the households for iodine content observed the place for hand-washing and measured the weights and heights of children aged under 5 years. Salt samples were also collected and labelled in incidences where the testing kits were not available and testing undertaken within the local offices. Details and findings of these measurements are provided in the respective sections of the report.

## Training and Fieldwork

Training for the fieldwork was conducted for 19 days in August/September, 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 2 days in practice interviewing in Kisumu County within clusters that were not sampled for the main survey exercise.

The data were collected by 12 teams; each was comprised of 5 interviewers, one driver, one editor, one measurer and a supervisor. Fieldwork began in October 2011 and was concluded in December 2011.

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

2 The model MICS4 questionnaires can be found at [www.childinfo.org](http://www.childinfo.org)

## Data Processing

Data were entered using the CPro software. The data were entered on 43 micro-computers and carried out by 28 data entry operators and 3 data entry supervisors. 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 Migori County questionnaire were used throughout. Data processing began simultaneously with data collection in October 2011 and was completed in January 2012. Data were 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

#### Sample Coverage

Of the 1250 households selected for the sample, 1159 were found to be occupied. Of these, 1123 were successfully interviewed giving a household response rate of 96.9 per cent. In the interviewed households, 1094 women (age 15-49 years) were eligible. Of these, 952 were successfully interviewed, yielding a response rate of 87 per cent within interviewed households. In addition, 1008 children under age five were listed in the household questionnaire. Questionnaires were completed for 975 of these children, which corresponds to a response rate of 96.7 per cent within interviewed households. The overall response rates for the women's and under-5's interviews is 84.3 and 93.7 respectively (Table HH.1).

**Table HH.1: Results of household and individual interviews**

<b>Number of households, women, and children under 5 by results of the interviews, and household, women's and under-5's response rates, Migori County, 2011</b>	
<b>Households</b>	
Sampled	1250
Occupied	1159
Interviewed	1123
Household response rate	96.9
<b>Women</b>	
Eligible	1094
Interviewed	952
Women's response rate	87.0
Women's overall response rate	84.3
<b>Children under 5</b>	
Eligible	1008
Mothers/caretakers interviewed	975
Under-5's response rate	96.7
Under-5's overall response rate	93.7

#### 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 1123 households successfully interviewed in the survey, 5333 household members were listed. Of these, 2621 were males, and 2711 were females. The age distribution from Table HH.2 shows that 50 per cent of the population in the sampled households is below 15 years of age, 47 per cent are aged between 15-64 years and 3 per cent are aged above 65 years. The child population aged between 0-17 years is 57 per cent, highlighting a high dependency burden in Migori County.

**Table HH.2: Household age distribution by sex**

Per cent and frequency distribution of the household population by five-year age groups, dependency age groups, and by child (age 0-17 years) and adult populations (age 18 or more), by sex, Migori County, 2011							
		Males		Females		Total	
		Number	Per cent	Number	Per cent	Number	Per cent
<b>Age</b>	0-4	440	16.8	496	18.3	936	17.6
	5-9	492	18.8	502	18.5	993	18.6
	10-14	382	14.6	374	13.8	756	14.2
	15-19	282	10.8	262	9.7	544	10.2
	20-24	193	7.4	207	7.6	399	7.5
	25-29	173	6.6	212	7.8	386	7.2
	30-34	160	6.1	137	5.0	296	5.6
	35-39	110	4.2	119	4.4	230	4.3
	40-44	82	3.1	68	2.5	151	2.8
	45-49	83	3.2	78	2.9	161	3.0
	50-54	58	2.2	74	2.7	133	2.5
	55-59	46	1.8	65	2.4	111	2.1
	60-64	38	1.5	35	1.3	73	1.4
	65-69	26	1.0	26	1.0	52	1.0
	70-74	23	0.9	27	1.0	50	0.9
	75-79	20	0.8	15	0.5	35	0.7
	80-84	7	0.3	10	0.4	16	0.3
85+	4	0.2	5	0.2	9	0.2	
Missing/DK	1	0.0	0	0.0	1	0.0	
<b>Dependency age groups</b>	0-14	1314	50.1	1371	50.6	2686	50.4
	15-64	1226	46.8	1257	46.4	2483	46.6
	65+	80	3.1	83	3.1	163	3.1
	Missing/DK	1	0.0	0	0	1	0.0
<b>Children and adult populations</b>	Children age 0-17 years	1493	56.9	1533	56.5	3025	56.7
	Adults age 18+ years	1128	43.0	1179	43.5	2307	43.3
	Missing/DK	1	0.0	0	0	1	0.0
<b>Total</b>		<b>2621</b>	<b>100.0</b>	<b>2711</b>	<b>100.0</b>	<b>5333</b>	<b>100.0</b>

( ) Based on 25-49 unweighted cases.  
 (\*) Not shown, based on less than 25 unweighted cases.

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

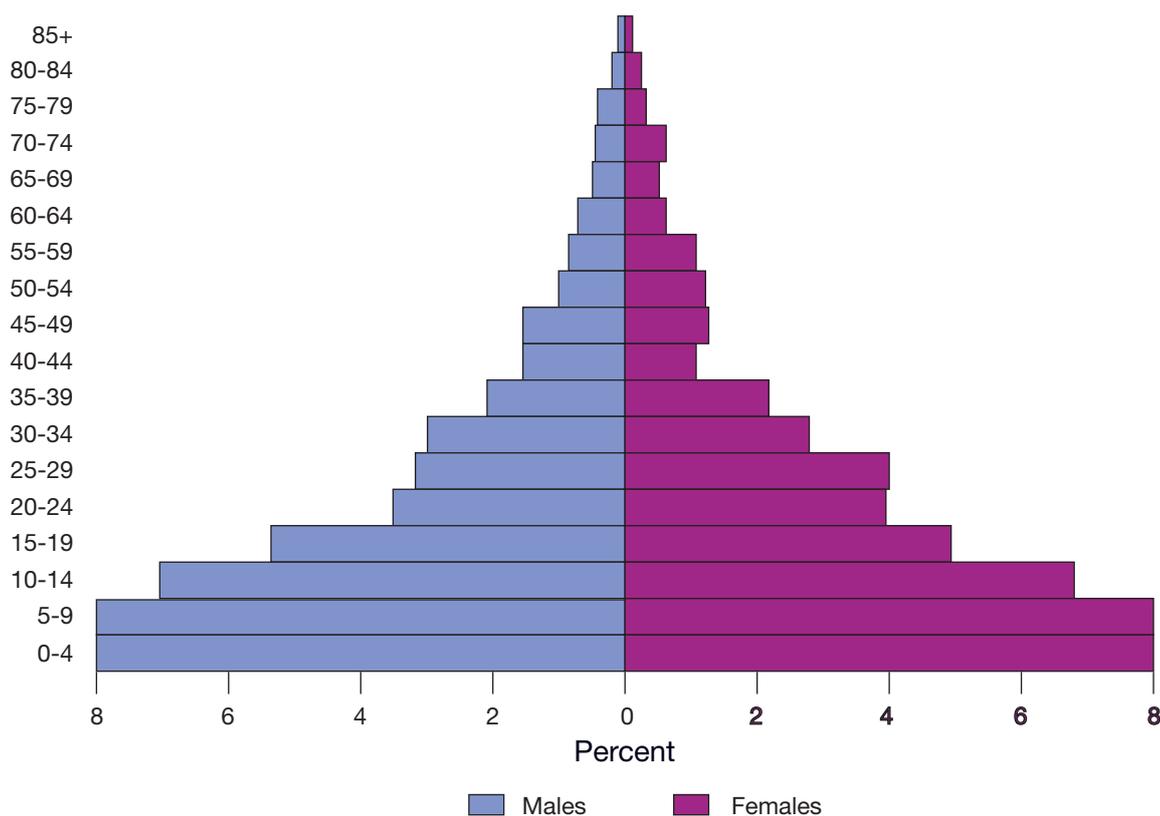


Table HH.3 - HH.5 provide basic information on the households, female respondents age 15-49, and children under-5 by presenting the unweighted, as well as the weighted numbers. Information on the basic characteristics of households, women and children under-5 interviewed in the survey is essential for 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.

Table HH.3 provides basic background information on the households. Within households, the sex of the household head, residence, number of household members, and education of the 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. The weighted and 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 Migori County, about 24 per cent of the residents live in the urban areas. The mean household size is 4.7 persons which is comparable to the national mean household size of 4.2 reported in the 2008-09 KDHS. About 28 per cent of the households are reportedly headed by females and approximately 54 per cent of the households have at least one child below 5 years of age. About 82 per cent of the households have at least one child below 18 years of age and 77 per cent have at least one female in the reproductive age group 15-49 years. About 17 per cent of the household heads have no education, 62 per cent have attained primary education and 21 per cent have attained secondary education.

**Table HH.3: Household composition**

<b>Per cent and frequency distribution of households by selected characteristics, Migori County, 2011</b>			
	Weighted per cent	Number of households	
		Weighted	Unweighted
<b>Sex of household head</b>			
Male	72.3	815	832
Female	27.7	313	291
<b>Residence</b>			
Urban	24.1	272	169
Rural	75.9	856	954
<b>Number of household members</b>			
1	10.7	121	91
2	8.1	92	81
3	12.2	137	144
4	16.7	188	188
5	16.5	186	178
6	14.5	164	177
7	8.3	94	105
8	6.5	73	79
9	(3.7)	42	43
10+	(2.8)	31	37
<b>Education of household head</b>			
None	16.8	190	189
Primary	61.8	698	719
Secondary+	21.2	239	214
Missing /DK	(*)	1	1
<b>Total</b>	<b>100</b>	<b>1128</b>	<b>1123</b>
<b>Households with at least</b>			
Households with at least: one child age 0-4 years	54.2	1128	1123
Households with at least: one child age 0-17 years	81.5	1128	1123
Households with at least: one woman age 15-49 years	77.1	1128	1123
<b>Mean household size</b>	<b>4.7</b>	<b>1128</b>	<b>1123</b>
Total weighted and unweighted numbers of households should be equal when normalized sample weights are used.			
() Based on 25-49 unweighted cases.			
(*) Not shown, based on less than 25 unweighted cases.			

### 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 both tables, the total numbers of weighted and unweighted observations are unequal, since sample weights have been normalized (standardized) at the provincial level. In addition to providing useful information on the background characteristics of women and children, the tables are also intended to show the numbers of observations in each background category. These categories are used in the subsequent tabulations of this report.

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

Per cent and frequency distribution of women age 15-49 years by selected background characteristics, Migori County, 2011				
		Weighted per cent	Number of women	
			Weighted	Unweighted
<b>Area</b>	Urban	21.0	202	130
	Rural	79.0	761	822
<b>Age</b>	15-19	20.9	202	191
	20-24	19.1	184	187
	25-29	21.3	205	207
	30-34	13.4	129	122
	35-39	11.1	107	110
	40-44	6.8	65	69
	45-49	7.3	71	66
<b>Marital/Union status</b>	Currently married/in union	70.9	682	690
	Widowed	8.5	81	84
	Divorced	(*)	0	1
	Separated	(3.6)	35	26
	Never married/in union	17.0	164	151
<b>Motherhood status</b>	Ever gave birth	82.7	796	799
	Never gave birth	17.3	167	153
<b>Births in last two years</b>	Had a birth in last two years	33.9	326	348
	Had no birth in last two years	66.1	636	604
<b>Education</b>	None	(5.7)	55	46
	Primary	75.9	731	748
	Secondary+	18.3	176	158
<b>Wealth index quintiles</b>	Poorest	23.7	228	249
	Second	15.7	151	167
	Middle	20.4	197	211
	Fourth	18.4	177	181
	Richest	21.8	210	144
<b>Total</b>		<b>100</b>	<b>963</b>	<b>952</b>
Total weighted and unweighted numbers of women should be equal when normalized sample weights are used.				
() Based on 25-49 unweighted cases.				
(*) Not shown, based on less than 25 unweighted cases.				

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 residence, age, marital status, motherhood status, births in the last two years, education<sup>3</sup>, and wealth index quintiles.<sup>4</sup>

In Migori County, most of the women aged 15-49 years are in the age category of 15 to 29 years, accounting for 61 per cent of the sample. About 71 per cent of the women aged 15-49 years are currently married whilst 17 per cent reported never having been married or in a union. Eighty-three per cent of the women reported to have ever given birth, while seventeen per cent have never given birth. The data suggests that most women in this county give birth within marriage or in a union. Thirty-four per cent of women had a birth in the last two years. The majority of women have attained primary education (76 per cent) but only 18 per cent have attained secondary education. About 22 per cent of the women are from the households in the highest income category, while 24 per cent are from households in the lowest income category.

Some background characteristics of children under 5 are presented in Table HH.5. These include the distribution of children by several attributes: sex, residence, age, mother's or caretaker's education, and wealth index. The results show that the proportion of female children aged 0-4 year's accounts for 53 per cent. About 8 per cent of children aged below five years belong to the 0-5 month age group, while 10 per cent are in the 6-11 month category. Eighty-two per cent of children have mothers who have attained primary level education, while twelve per cent have mothers who have attained at least secondary education. The distribution of children below five years by wealth index shows that 31 per cent come from households in the lowest income category whilst 15 per cent are from those in the highest income category.

3 Unless otherwise stated, "education" refers to educational level attended by the respondent throughout this report when it is used as a background variable.

4 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: source of drinking water, type of sanitation, persons per sleeping room, type of floor, roof, wall, cooking fuel; possession of electricity, radio, black and white Tv, colorTv, mobile3 phone, non-mobile phone, fridge, blender, water heater, washing machine, computer, internet, watch, bicycle, car or truck, motorcycle, boat, boat with motor, ownership of dwelling unit, land, cattle, cows, goats, sheep, chicken, horse or donkey, sewing machine, air conditioner, VCR or DVD). 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, Washington, DC: World Bank.* *Rutstein, S.O. and Johnson, K., 2004. The DHS Wealth Index. DHS Comparative Reports No. 6. Calverton, Maryland: ORC Macro*

**Table HH.5: Under-5's background characteristics**

<b>Per cent and frequency distribution of children under five years of age by selected characteristics, Migori County, 2011</b>				
		Weighted per cent	Number of children	
			Weighted	Unweighted
Sex	Male	47.3	440	458
	Female	52.7	490	517
Area	Urban	13.5	126	100
	Rural	86.5	804	875
Age	0-5 months	7.9	73	81
	6-11 months	10.4	96	102
	12-23 months	16.4	152	165
	24-35 months	21.5	200	210
	36-47 months	24.4	227	234
	48-59 months	19.4	181	183
Mother's education	None	(6.1)	57	49
	Primary	81.7	759	808
	Secondary+	12.2	114	118
Wealth index quintiles	Poorest	30.7	286	315
	Second	16.4	152	174
	Middle	21.4	199	212
	Fourth	16.2	151	160
	Richest	15.4	143	114
<b>Total</b>		<b>100</b>	<b>930</b>	<b>975</b>

\* Mother's education refers to educational attainment of mothers and caretakers of children under 5.  
 ( ) Based on 25-49 unweighted cases.

## IV. Child Mortality

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One of the overarching goals of the Millennium Development Goals (MDGs) is the reduction of infant and under-five mortality. Specifically, the fourth MDG calls for the reduction in under-five mortality by two-thirds between 1990 and 2015. Monitoring progress towards this goal is an important but difficult objective. Measuring childhood mortality may seem easy, but attempts using direct questions, such as “Has anyone in this household died in the last year?” give inaccurate results.

The Migori County Multiple Indicator Cluster Survey utilised direct measures of child mortality from birth histories which is one of the best ways of obtaining this information. The birth history obtained from women aged 15-49 years includes number of children ever born and living by sex, and date of birth of each child born. If the child is not alive at the time of the survey, information on age of the child at the time of death is also obtained. This method is being used by the Demographic and Health Surveys (DHS) worldwide including the KDHS. This allows us to compare the mortality rates obtained by MICS with those of KDHS.

The Infant Mortality Rate (IMR) is the probability of dying before the first birthday. The Under-five Mortality Rate (U5MR) is the probability of dying before the fifth birthday. The neonatal mortality rate is the probability of dying before one month of life. Post neonatal mortality rate is the probability of dying between one month and one year of life. The child mortality rate refers to probability of dying between one and five year of life. All mortality rates mentioned above are expressed per 1,000 live births, except for child mortality rate, which is expressed per 1,000 children surviving up to 12 months of age.

Though direct estimates of mortality obtained from birth histories are the best, the quality of these mortality estimates depend on the completeness of information obtained in the birth histories. In many cases women tend to avoid reporting their dead children and this tends to under estimate the mortality levels.

Table CM.1 provides estimates of early childhood mortality for ten-year periods preceding the MICS survey. For the tenyears immediately preceding the survey, the infant mortality rate is estimated at 76 deaths per 1000 live births, while the probability of dying under age 5 (U5MR) is around 123 deaths per 1000 live births. This implies that 1 in every 13 children born in Migori County dies before their first birthday, while 1 in every 8 does not survive to age five. According to the 2008-9 KDHS, the infant mortality rate nationally was 52 while the under-five mortality was 74 for the five years immediately preceding the survey (approximate calendar years 2004-2008). The estimated neonatal mortality rate is 27 per thousand live births while the post-neonatal mortality rate is 49 per thousand live births, for the ten-years immediately preceding the MICS survey. This shows that more than a third of infant deaths in Migori County occur during the first month of life. The estimated child mortality rate is 50 deaths per 1000 children surviving to the first birthday.

Table CM.1 also shows that over the past 20 years there has been a general decline in childhood mortality.

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

<b>Neonatal, post-neonatal, Infant, child and under-five mortality rates for tenyear periods preceding the survey, Migori County, 2011</b>					
<b>Years preceding the survey</b>	<b>Neonatal mortality rate [1]</b>	<b>Post-neonatal mortality rate [2]</b>	<b>Infant mortality rate [3]</b>	<b>Child mortality rate [4]</b>	<b>Under-five mortality rate [5]</b>
0-9	27	49	76	50	123
10-19	22	80	102	77	171

[1] MICS indicator 1.3  
[2] MICS indicator 1.4  
[3] MICS indicator 1.2; MDG indicator 4.2  
[4] MICS indicator 1.5  
[5] MICS indicator 1.1; MDG indicator 4.1  
Post-neonatal mortality rates are computed as the difference between the infant and neonatal mortality rates

## V. Nutrition

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### Nutritional Status

Children's nutritional status is a reflection of their overall health. When children have access to an adequate food supply, are not exposed to repeated illness, and are well cared for, they reach their growth potential and are considered well nourished.

Malnutrition is associated with more than half of all child deaths worldwide. Undernourished children are more likely to die from common childhood ailments, and for those who survive, have recurring sicknesses and faltering growth. Three-quarters of the children who die from causes related to malnutrition are only mildly or moderately malnourished – showing no outward sign of their vulnerability. The Millennium Development target is to reduce the proportion of people who suffer from hunger by half between 1990 and 2015. A reduction in the prevalence of malnutrition will also assist in the goal to reduce child mortality.

In a well-nourished population, there is a reference distribution of height and weight for children under age five. Under-nourishment in a population can be gauged by comparing children to a reference population. The reference population used in this report is based on new WHO growth standards<sup>5</sup>. Each of the three nutritional status indicators can be expressed in standard deviation units (z-scores) from the median of the reference population.

*Weight-for-age* is a measure of both acute and chronic malnutrition. Children whose weight-for-age is more than two standard deviations below the median of the reference population are considered *moderately* or *severely underweight* while those whose weight-for-age is more than three standard deviations below the median are classified as *severely underweight*.

*Height-for-age* is a measure of linear growth. Children whose height-for-age is more than two standard deviations below the median of the reference population are considered short for their age and are classified as *moderately* or *severely stunted*. Those whose height-for-age is more than three standard deviations below the median are classified as *severely stunted*. Stunting is a reflection of chronic malnutrition as a result of failure to receive adequate nutrition over a long period and recurrent or chronic illness.

Finally, children whose *weight-for-height* is more than two standard deviations below the median of the reference population are classified as *moderately* or *severely wasted*, while those who fall more than three standard deviations below the median are classified as *severely wasted*. Wasting is usually the result of a recent nutritional deficiency. The indicator may exhibit significant seasonal shifts associated with changes in the availability of food or disease prevalence.

In MICS, weights and heights of all children under 5 years of age were measured using anthropometric equipment recommended by UNICEF ([www.childinfo.org](http://www.childinfo.org)). Findings in this section are based on the results of these measurements.

Table NU.1 shows percentages of children classified into each of these categories, based on the anthropometric measurements that were taken during fieldwork. Additionally, the table includes the percentage of children who are overweight, which takes into account those children whose weight for height is above 2 standard deviations from the median of the reference population, and mean z-scores for all three anthropometric indicators.

5 [http://www.who.int/childgrowth/standards/second\\_set/technical\\_report\\_2.pdf](http://www.who.int/childgrowth/standards/second_set/technical_report_2.pdf)

**Table NU.1: Nutritional status of children**

Percentage of children under age 5 by nutritional status according to three anthropometric indices: weight for age, height for age, and weight for height, Migori County, 2011

	Weight for age			Height for age			Weight for height				
	Underweight			Stunted			Wasted				
	per cent below	Mean Z-Score (SD)	Number of children under age 5	per cent below	Mean Z-Score (SD)	Number of children under age 5	per cent below	Mean Z-Score (SD)	Number of children under age 5		
	- 2 SD [1]	- 3 SD [2]		- 2 SD [3]	- 3 SD [4]		- 2 SD [5]	- 3 SD [6]			
<b>Sex</b>											
Male	19.9	3.5	-1.1	33.4	17.5	-1.4	8.0	1.8	4.3	-0.2	416
Female	14.5	2.2	-0.8	31.3	10.7	-1.1	5.0	0.9	5.3	0.0	463
<b>Residence</b>											
Urban	20.7	0.7	-0.7	43.1	18.1	-1.4	4.4	1.5	11.5	0.3	111
Rural	16.5	3.1	0.9	30.7	13.3	-1.2	6.7	1.3	3.8	-0.2	768
<b>Age</b>											
0-5 months	6.0	3.5	0.1	4.8	2.3	0.1	14.5	4.6	11.5	-0.1	63
6-11 months	19.8	4.0	-0.8	18.1	7.0	-0.6	13.7	3.7	6.9	-0.3	92
12-23 months	21.8	4.6	-1.0	40.1	16.4	-1.6	9.3	0.9	7.4	-0.1	147
24-35 months	21.6	2.9	-1.0	39.9	18.8	-1.4	3.7	0.9	1.7	-0.2	197
36-47 months	14.8	2.6	-1.0	38.1	12.6	-1.5	1.6	0.4	2.4	0.0	213
48-59 months	13.0	0.6	-1.0	27.0	15.7	-1.4	6.0	1.0	5.5	-0.1	167
<b>Mother's education</b>											
None	(16.9)	(1.6)	(-1.1)	(37.2)	(22.8)	(-1.6)	(2.8)	(2.8)	(5.1)	(-0.1)	43
Primary	17.5	3.2	-0.9	33.3	14.2	-1.3	6.2	1.5	4.6	-0.1	722
Secondary	14.4	0.7	-0.8	23.7	8.3	-1.0	9.1	0.0	5.7	-0.2	114
<b>Wealth index quintile</b>											
Poorest	17.7	2.6	-1.0	32.3	14.4	-1.3	6.4	1.4	4.0	-0.2	269
Second	19.3	3.5	-0.9	26.8	10.1	-1.2	7.4	2.2	1.3	0.2	146
Middle	15.3	3.1	-0.9	33.0	10.8	-1.3	6.8	0.6	7.0	-0.1	192
Fourth	18.3	3.9	-1.0	32.5	20.1	-1.3	8.0	2.7	2.6	-0.2	143
Richest	14.3	0.9	-0.6	37.2	14.7	-1.2	2.9	0.0	9.5	0.2	129
<b>Total</b>	<b>17.1</b>	<b>2.8</b>	<b>-0.9</b>	<b>32.3</b>	<b>13.9</b>	<b>-1.3</b>	<b>6.4</b>	<b>1.3</b>	<b>4.8</b>	<b>-0.1</b>	<b>879</b>

[1] MICS indicator 2.1a and MDG indicator 1.8

[2] MICS indicator 2.1b

[3] MICS indicator 2.2a, 4 MICS indicator 2.2b

[5] MICS indicator 2.3a, 6 MICS indicator 2.3b

**Notes:** The first two columns for each anthropometric indicator refer to children whose z-scores for the anthropometric indicator (i.e. the exact number of standard deviations from the median) fall below -2 standard deviations (moderately and severely underweight, stunted, or wasted) and -3 standard deviations (severely underweight, stunted, or wasted) from the median of the WHO Child Growth Standards for the same anthropometric indicator. The table also includes mean z-scores for each anthropometric indicator, and the percentage of children who are overweight, which takes into account those children whose weight for height is above 2 standard deviations from the median of the WHO Child Growth Standards.

The per cent 'below -2 standard deviations' includes those who fall -3 standard deviations below the median.

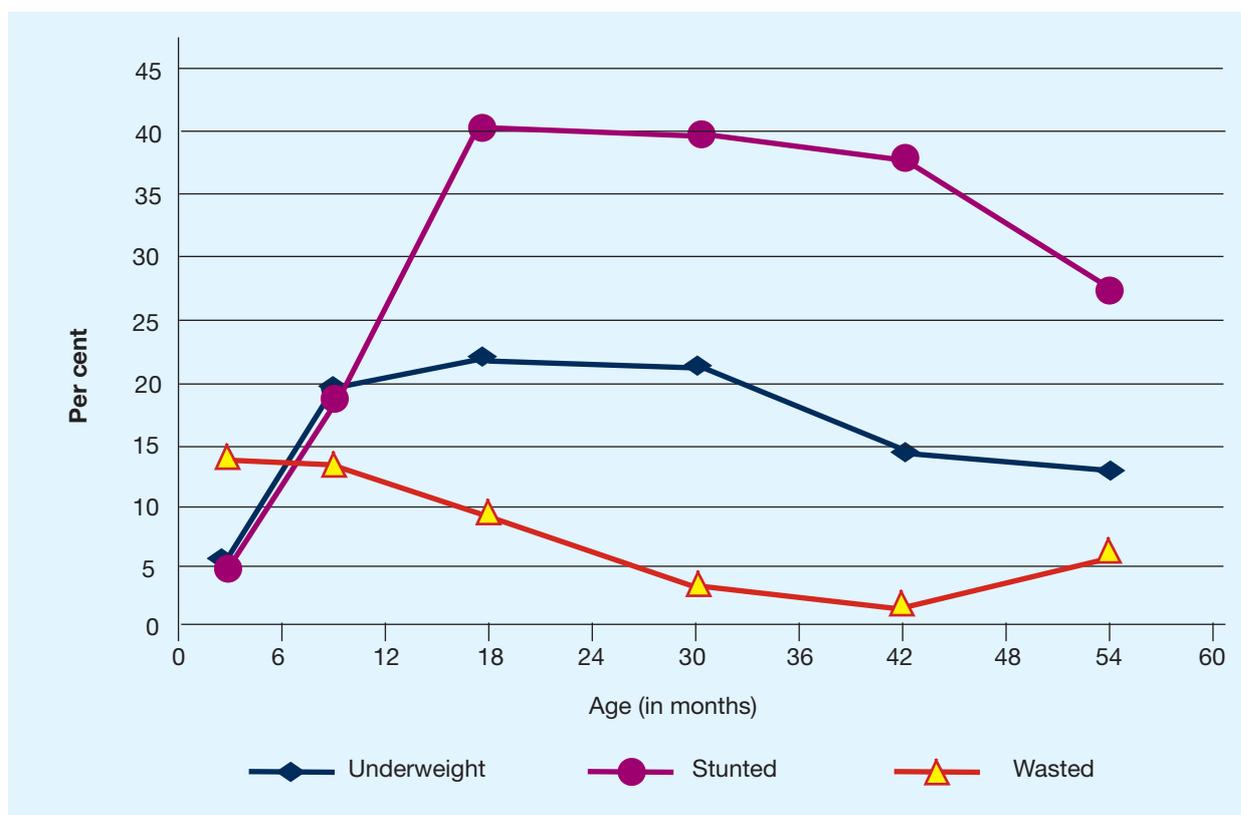
Indices used in this table are not comparable to those based on the NCHS/CDC/WHO reference. For the nutritional status table based on the NCHS/CDC/WHO, see the tables in the appendix.

Children whose full birth date (month and year) are not obtained, and children whose measurements are outside a plausible range were excluded from Table NU.1. Children were excluded from one or more of the anthropometric indicators when their weights and heights had not been measured, whichever was applicable. For example if a child had been weighed but his/her height had not been measured, the child was included in underweight calculations, but not in the calculations for stunting and wasting. Percentages of children by age and reasons for exclusion are shown in the data quality tables DQ.6 and DQ.7. Overall all children in Migori County had either their month or year of birth taken, 96 per cent had their weight taken, 96 per cent had their height taken whilst 96 per cent had either their weight or height measured (Table DQ.6). Table DQ.7 shows that due to incomplete dates of birth, implausible measurements, and missing weight and/or height, less than 1 per cent of children have been excluded from calculations of the weight-for-age indicator, while a comparable proportion has been excluded from calculations of the height-for-age indicator.

Approximately one in six (17 per cent) of children under age five in Migori County are moderately or severely underweight (below -2SD from the WHO reference mean) whilst around 3 per cent are classified as severely underweight (below -3SD from the WHO reference mean) (Table NU.1). About one in three (32 per cent) children is moderately or severely stunted or too short for their age whilst about 1 in 7 (14 per cent) are severely stunted. About 6 per cent are moderately or severely wasted or too thin for their height, whilst 5 per cent are classified as overweight.

Consistent with the findings of the 2008-9 KDHS report, the proportions of underweight, stunted and wasted children in Migori County are highest among boys than girls. The proportions of underweight children range from 21 per cent in urban and 17 per cent in rural areas. Similarly the proportions of those stunted and overweight were higher in urban areas. There is no consistent variation in nutrition indices according to mother's education or wealth status.

**Figure NU.1: Percentage of children under age 5 who are underweight, stunted and wasted, Migori County, 2011**



The age pattern shows that a higher percentage of children aged 12-23 months are undernourished in comparison to children in other age groups according to the weight for age (underweight) and weight for height (stunting) indices (Figure NU.1). This pattern is expected and is related to the age at which many children cease to be breastfed and get exposed to contamination in water, food, and environment. In contrast, whilst the proportions of overweight and wasted children are highest in the 0-6 month age-group, they decrease steadily as age increases up to 36-47 months then increase in the 48-59 months age group. There is no variation in nutrition indices by wealth quintiles.

## 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, appropriate and adequate 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)

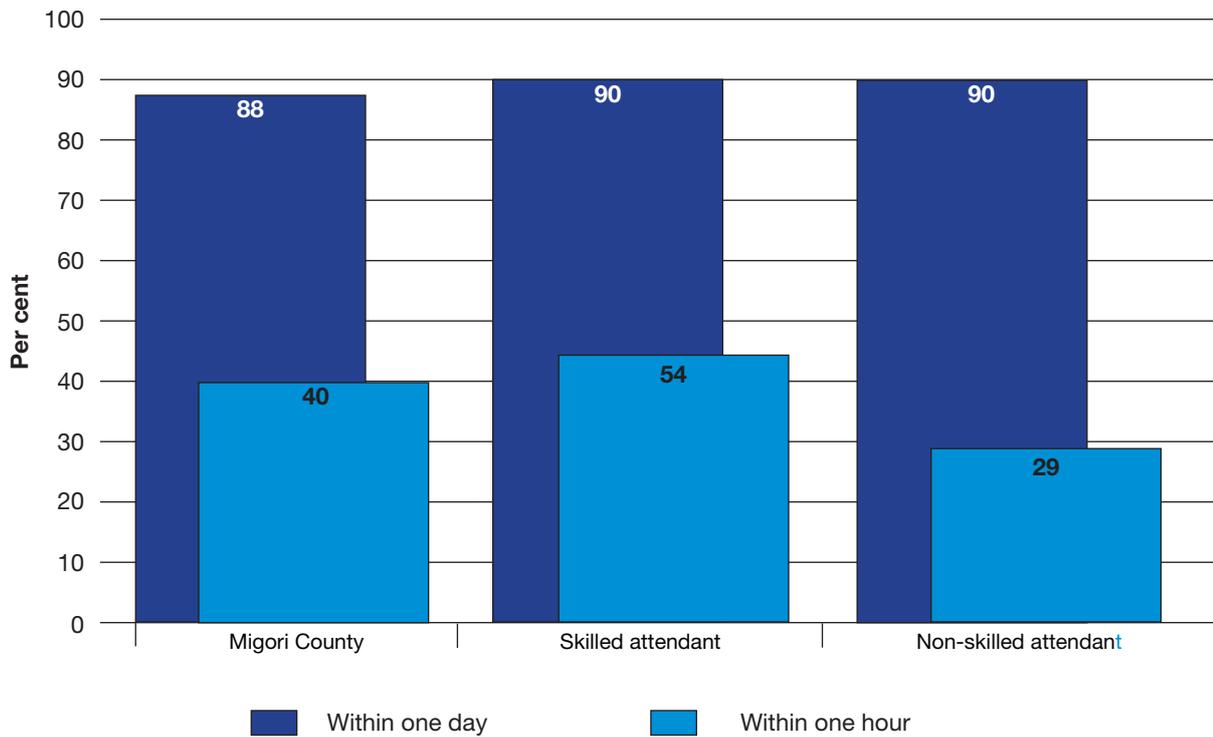
**Table NU.2: Initial breastfeeding**

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, Migori County, 2011				
	Percentage who were ever breastfed [1]	Percentage who were first breastfed:		Number of last-born children in the two years preceding the survey
		Within one hour of birth [2]	Within one day of birth	
<b>Residence</b>				
Urban	(93.3)	(57.5)	(86.1)	41
Rural	96.7	37.0	87.9	285
<b>Months since birth</b>				
0-11 months	97.0	38.5	87.3	161
12-23 months	96.2	40.8	88.1	155
<b>Assistance at delivery</b>				
Skilled attendant	96.9	54.2	89.5	156
Traditional birth attendant	98.8	29.1	89.9	107
<b>Place of delivery</b>				
Public sector health facility	98.7	57.4	94.0	114
Private sector health facility	(96.3)	(48.3)	(80.8)	31
Home	97.5	27.0	86.8	167
<b>Mother's education</b>				
None	(*)	(*)	(*)	6
Primary	96.5	39.4	89.3	280
Secondary+	(93.9)	(45.0)	(81.3)	40
<b>Wealth index quintile</b>				
Poorest	93.8	20.9	85.5	107
Second	99.2	44.6	84.8	52
Middle	100.0	53.4	91.6	68
Fourth	96.1	44.7	89.5	52
Richest	(93.3)	(50.6)	(87.9)	47
<b>Total</b>	<b>96.2</b>	<b>39.6</b>	<b>87.6</b>	<b>326</b>
[1] MICS indicator 2.4				
[2] MICS indicator 2.5				
Not shown, based on less than 25 unweighted cases. ( ) Based on 25-49 unweighted cases				

Table NU.2 provides the proportion of children born in the last two years who were ever breastfed and those who were first breastfed within one hour and one day of birth. Overall, 96 per cent of children born in the 2 years preceding the survey in Migori County were ever breastfed. However, although a very important step in management of lactation and establishment of a physical and emotional relationship between the baby and the mother, only about 2 out of 5 (40 per cent) babies in Migori County are breastfed for the first time within one hour of birth. About 88 per cent of new-borns start breastfeeding within one day of birth. The proportion of children breastfed within one hour of birth is more than two times higher

amongst children delivered within public health facilities (57 per cent) than amongst those delivered at home (27 per cent) (Figure NU. 2). Similarly, the proportion breastfeeding within one hour of birth is much higher amongst those delivered by a skilled attendant (54 per cent) when compared to those delivered by a traditional birth attendant (TBA) (29 per cent). Only 21 per cent of Children in the poorest wealth quintile were breastfed within one hour of birth. The corresponding figure for those from the fourth richest quintile is 45 per cent.

**Figure NU.2: Percentage of mothers who started breastfeeding within one hour and within one day of birth, Migori County, 2011**



In Table NU.3, breastfeeding status is presented based on the reports of mothers/caretakers of children's consumption of food and fluids in the 24 hours 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.

**Table NU.3: Breastfeeding**

Percentage of living children according to breastfeeding status at selected age groups, Migori County, 2011							
	Children age 0-5 months			Children age 12-15 months		Children age 20-23 months	
	Per cent exclusively breastfed [1]	Per cent predominantly breastfed [2]	Number of children	Per cent breastfed (Continued breastfeeding at 1 year) [3]	Number of children	Per cent breastfed (Continued breastfeeding at 2 years) [4]	Number of children
<b>Sex</b>							
Male	(17.9)	(42.4)	35	(*)	23	(*)	24
Female	(51.6)	(68.8)	38	(83.7)	26	(59.2)	31
<b>Residence</b>							
Urban	(*)	(*)	1	(*)	4	(*)	13
Rural	35.4	56.2	73	(82.7)	45	(41.5)	42
<b>Mother's education</b>							
None	(*)	(*)	0	(*)	1	(*)	1
Primary	33.4	54.9	66	(80.2)	42	(52.3)	48
Secondary	(*)	(*)	7	(*)	6	(*)	7
<b>Wealth index quintile</b>							
Poorest	(36.9)	(56.1)	30	(*)	12	(*)	16
Second	(*)	(*)	12	(*)	14	(*)	11
Middle	(*)	(*)	18	(*)	11	(*)	10
Fourth	(*)	(*)	10	(*)	7	(*)	5
Richest	(*)	(*)	3	(*)	6	(*)	13
<b>Total</b>	<b>35.6</b>	<b>56.3</b>	<b>73</b>	<b>(78.9)</b>	<b>49</b>	<b>50.5</b>	<b>55</b>
[1] MICS indicator 2.6 [2] MICS indicator 2.9 [3] MICS indicator 2.7 [4] MICS indicator 2.8 (*) Not shown, based on less than 25 unweighted cases. ( ) Based on 25-49 unweighted cases. Titles of indicators on continued breastfeeding at 1 and 2 years reflect approximations of the age ranges covered							

Exclusive breastfeeding in Migori County is not common, with only 36 per cent of children aged less than six months being exclusively breastfed; this level is considerably lower than the recommended 100 per cent. By age 12-15 months, 79 per cent of children are still being breastfed whilst slightly more than half (51 per cent) are still being breastfed by age 20-23 months. About half (51 per cent) of children are receiving breast milk after 2 years.

**Figure NU.3: Infant feeding patterns by age: Percent distribution of children aged under 2 years by feeding pattern by age group, Migori County, Nyanza province, Kenya, 2011**

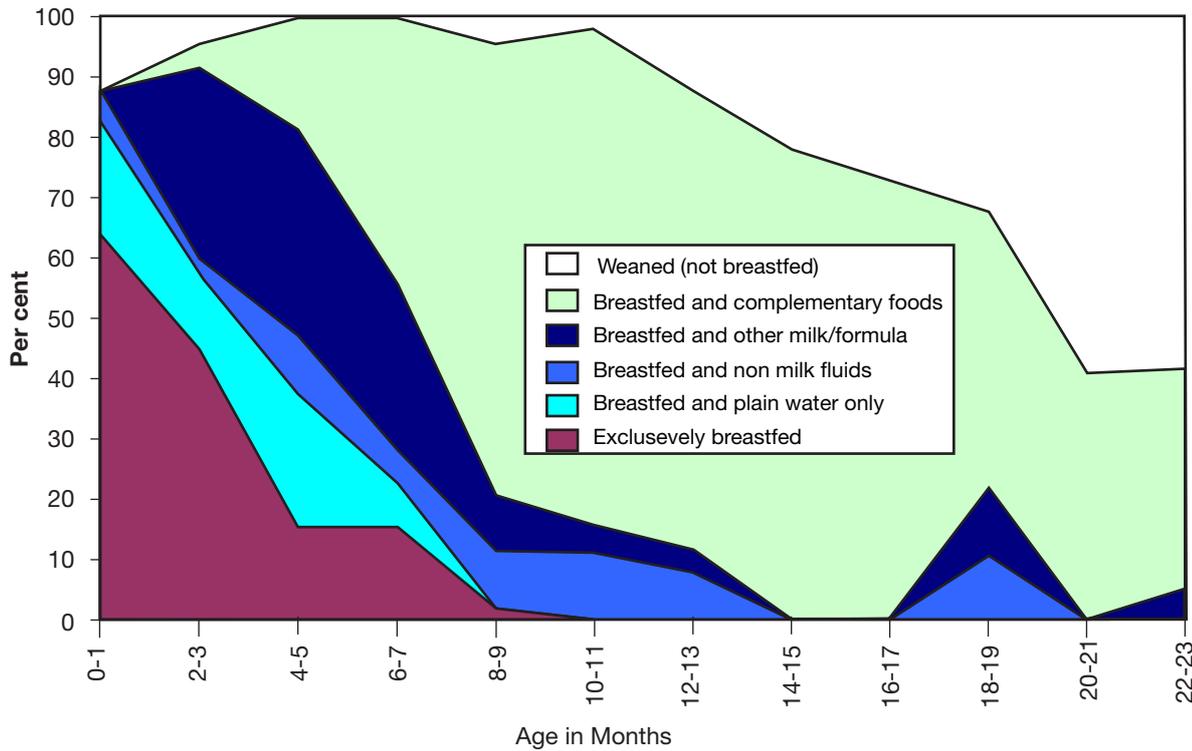


Table NU.4 shows the median duration of breastfeeding by selected background characteristics. Among children under age 3, the median duration is approximately 21 months for any breastfeeding, less than 2 months for exclusive breastfeeding, and slightly more than 3 months for predominant breastfeeding. Although the duration of any breastfeeding does not vary markedly by mother’s education, the duration of exclusive breastfeeding is about 2 months longer amongst children whose mothers have at least secondary level education ( more than 4 months) than amongst those whose mothers have primary level education (less than 2 months). The duration of breastfeeding does not vary by wealth status.

**Table NU.4: Duration of breastfeeding**

<b>Median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among children age 0-35 months, Migori County, 2011</b>				
	Median duration (in months) of			Number of children age 0-35 months
	Any breastfeeding [1]	Exclusive breastfeeding	Predominant breastfeeding	
<b>Sex</b>				
Male	17.7	0.0	2.3	244
Female	22.0	2.6	4.2	279
<b>Residence</b>				
Urban	19.7	0.0	0.0	62
Rural	20.6	1.6	3.3	460
<b>Mother's education</b>				
None	(*)	(*)	(*)	19
Primary	21.3	1.7	3.1	433
Secondary+	15.9	4.3	5.7	71
<b>Wealth index quintile</b>				
Poorest	19.5	1.8	3.2	173
Second	18.9	0.0	2.5	81
Middle	21.6	1.8	3.1	108
Fourth	20.6	0.0	5.4	88
Richest	20.6	3.2	3.7	73
<b>Median</b>	<b>21.0</b>	<b>1.6</b>	<b>3.3</b>	<b>522</b>
<p>[1] MICS indicator 2.10            (*) Not shown, based on less than 25 unweighted cases            a) Median duration of any breastfeeding is calculated as the age in months when 50 per cent of children age 0-35 months did not receive breast milk during the previous day. Median durations of exclusive and predominant breastfeeding are calculated the same way            b) Median and mean durations are based on current status. The table is based only on living children at the time of survey.            c) For definitions of exclusive and predominant breastfeeding, see footnotes below Table NU.3.</p>				

The adequacy of infant feeding in children aged less than 24 months is provided in Table NU.5. Different criteria of adequate feeding are used depending on the age of the child. For infants aged 0-5 months, exclusive breastfeeding is considered as adequate feeding, while infants aged 6-23 months are considered to be adequately fed if they are receiving breast milk and solid, semi-solid or soft food. In Migori County, only 36 per cent of infants aged less than 6 months are exclusively breast fed, whilst about 63 per cent of those in the 6-23 months age group are adequately fed. Overall, about 57 per cent of children aged 0-23 months are appropriately fed. A higher proportion of girls aged 0-23 months (63 per cent) are appropriately fed compared to their male counterparts (48 per cent).

**Table NU.5: Age-appropriate breastfeeding**

Percentage of children age 0-23 months who were appropriately breastfed during the previous day, Migori County, 2011						
	Children age 0-5 months		Children age 6-23 months		Children age 0-23 months	
	Per cent exclusively breastfed [1]	Number of children	Per cent currently breastfeeding and receiving solid, semi-solid or soft foods	Number of children	Per cent appropriately breastfed [2]	Number of children
<b>Sex</b>						
Male	(17.9)	35	57.4	108	47.7	142
Female	(51.6)	38	66.5	141	63.3	179
<b>Residence</b>						
Urban	(*)	1	(58.2)	34	(58.2)	35
Rural	35.4	73	63.3	215	56.2	287
<b>Mother's education</b>						
None	(*)	0	(*)	7	(*)	7
Primary	33.4	66	64.3	210	56.9	275
Secondary+	(*)	7	(49.4)	32	(50.5)	39
<b>Wealth index quintile</b>						
Poorest	(36.9)	30	65.1	80	57.4	110
Second	(*)	12	(64.8)	41	56.4	53
Middle	(*)	18	64.0	51	55.2	69
Fourth	(*)	10	(56.1)	36	(52.2)	46
Richest	(*)	3	(59.4)	40	(60.4)	43
<b>Total</b>	<b>35.6</b>	<b>73</b>	<b>62.6</b>	<b>249</b>	<b>56.4</b>	<b>322</b>
[1] MICS indicator 2.6						
[2] MICS indicator 2.14						
(*) Not shown, based on less than 25 unweighted cases. ( ) Based on 25-49 unweighted cases						

Adequate complementary feeding of children from 6 months to two years of age is particularly important for growth and development and the prevention of under nutrition. Continued breastfeeding beyond six months should be accompanied by consumption of nutritionally adequate, safe and appropriate complementary foods that help meet nutritional requirements when breast milk is no longer sufficient. This requires that for breastfed children, two or more meals of solid, semi-solid or soft foods are given 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.

**Table NU.6: Introduction of solid, semi-solid or soft foods**

<b>Percentage of infants age 6-8 months who received solid, semi-solid or soft foods during the previous day, Migori county, 2011</b>						
	Currently breastfeeding		Currently not breastfeeding		All	
	Per cent receiving solid, semi-solid or soft foods	Number of children age 6-8 months	Per cent receiving solid, semi-solid or soft foods	Number of children age 6-8 months	Per cent receiving solid, semi-solid or soft foods [1]	Number of children age 6-8 months
<b>Sex</b>						
Male	(*)	23	(*)	23	(*)	23
Female	(*)	19	(*)	19	(*)	19
<b>Residence</b>						
Urban	(*)	5	(*)	0	(*)	5
Rural	(56.9)	37	(56.9)	37	(56.9)	37
<b>Total</b>	<b>(55.3)</b>	<b>43</b>	<b>(*)</b>	<b>0</b>	<b>(55.3)</b>	<b>43</b>
[1] MICS indicator 2.12						
(*) Not shown, based on less than 25 unweighted cases. ( ) Based on 25-49 unweighted cases.						

Table NU.7 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 previous day according to breastfeeding status (see the note in Table NU.7 for a definition of minimum number of times for different age groups). Overall, 43 per cent of children in Migori County are receiving solid, semi-solid and softfoods the minimum number of times.

**Table NU.7: 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, Migori County, 2011								
		Currently breastfeeding		Currently not breastfeeding			All	
		Per cent receiving solid, semi-solid and soft foods the minimum number of times	Number of children age 6-23 months	Per cent receiving at least 2 milk feeds [1]	Per cent receiving solid, semi-solid and soft foods or milk feeds 4 times or more	Number of children age 6-23 months	Per cent with minimum meal frequency [2]	Number of children age 6-23 months
<b>Sex</b>	Male	40.8	80	(35.6)	(39.1)	27	40.4	108
	Female	40.6	113	(55.4)	(61.1)	28	44.7	141
<b>Age</b>	6-8 months	(39.8)	43	.	.	0	(39.8)	43
	9-11 months	37.6	51	(*)	(*)	2	39.4	53
	12-17 months	39.7	53	(*)	(*)	16	43.3	70
	18-23 months	(46.0)	46	(43.8)	(46.4)	37	46.2	83
<b>Residence</b>	Urban	(55.0)	54	(*)	(*)	9	(58.3)	34
	Rural	38.5	127	(44.0)	(47.0)	47	40.4	215
<b>Mother's education</b>	None	(*)	5	(*)	(*)	2	(*)	7
	Primary	40.4	167	(42.0)	(45.4)	42	41.4	210
	Secondary	(*)	21	(*)	(*)	11	(44.6)	32
<b>Wealth index quintiles</b>	Poorest	37.1	61	(*)	(*)	19	35.5	80
	Second	(27.0)	32	(*)	(*)	9	(26.4)	41
	Middle	(48.5)	40	(*)	(*)	11	53.9	51
	Fourth	(43.0)	30	(*)	(*)	7	(51.8)	36
	Richest	(49.2)	31	(*)	(*)	9	(51.9)	40
<b>Total</b>		<b>40.7</b>	<b>193</b>	<b>40.7</b>	<b>50.3</b>	<b>56</b>	<b>42.8</b>	<b>249</b>
[1] MICS indicator 2.15								
[2] MICS indicator 2.13								
(*) Not shown, based on less than 25 unweighted cases. ( ) Based on 25-49 unweighted cases.								
<b>Note:</b> 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.								

Among currently breastfeeding children aged 6-23 months, about two out of five (41 per cent) are receiving solid, semi-solid and soft foods the minimum number of times, whilst among non-breastfeeding children, about half (50 per cent) are receiving solid, semi-solid and soft foods or milk feeds 4 times or more.

The continued practice of bottle-feeding is a concern because of the possible contamination due to use of unsafe water and lack of hygiene in preparation. Table NU.8 shows that bottle-feeding still occurs in Migori County; with about 1 in 5 (21 per cent) children aged 0-23 months reported to have been fed using a bottle with a nipple. The proportion of boys who were bottle fed was higher (25 per cent) than that of girls (18 per cent). There was no variation in bottle feeding by child age, wealth quintiles or mothers education.

**Table NU.8: Bottle feeding**

Percentage of children age 0-23 months who were fed with a bottle with a nipple during the previous day, Migori County, 2011			
		Percentage of children age 0-23 months fed with a bottle with a nipple [1]	Number of children age 0-23 months
<b>Sex</b>	Male	25.3	142
	Female	17.6	179
<b>Age</b>	0-5 months	21.0	73
	6-11 months	21.3	96
	12-23 months	20.8	152
<b>Residence</b>	Urban	(14.0)	35
	Rural	21.9	287
<b>Mother's education</b>	None	(*)	7
	Primary	21.3	275
	Secondary	(22.9)	39
<b>Wealth index quintiles</b>	Poorest	18.4	110
	Second	24.1	53
	Middle	25.0	69
	Fourth	(21.3)	46
	Richest	(17.3)	43
<b>Total</b>		<b>21.0</b>	<b>322</b>
[1] MICS indicator 2.11			
(*) Not shown, based on less than 25 unweighted cases. ( ) Based on 25-49 unweighted cases.			

## Salt Iodization

Iodine Deficiency Disorders (IDD) is the world's leading cause of preventable mental retardation and impaired psychomotor development in young children. In its most extreme form, iodine deficiency causes cretinism. It also increases the risks of stillbirth and miscarriage in pregnant women. Iodine deficiency is most commonly and visibly associated with goitre. IDD takes its greatest toll in impaired mental growth and development, contributing in turn to poor school performance, reduced intellectual ability, and impaired work performance. The international goal is to achieve sustainable elimination of iodine deficiency by 2005. The WHO and UNICEF recommend universal salt iodization as a safe, cost-effective and sustainable strategy to ensure sufficient intake of iodine by all individuals. In line with international recommendations, the Kenya Ministry of Public Health and Sanitation (MOPHS) recommends that all salts meant for human consumption in Kenya should be iodized. The indicator is the percentage of households consuming adequately iodized salt (>15 parts per million).

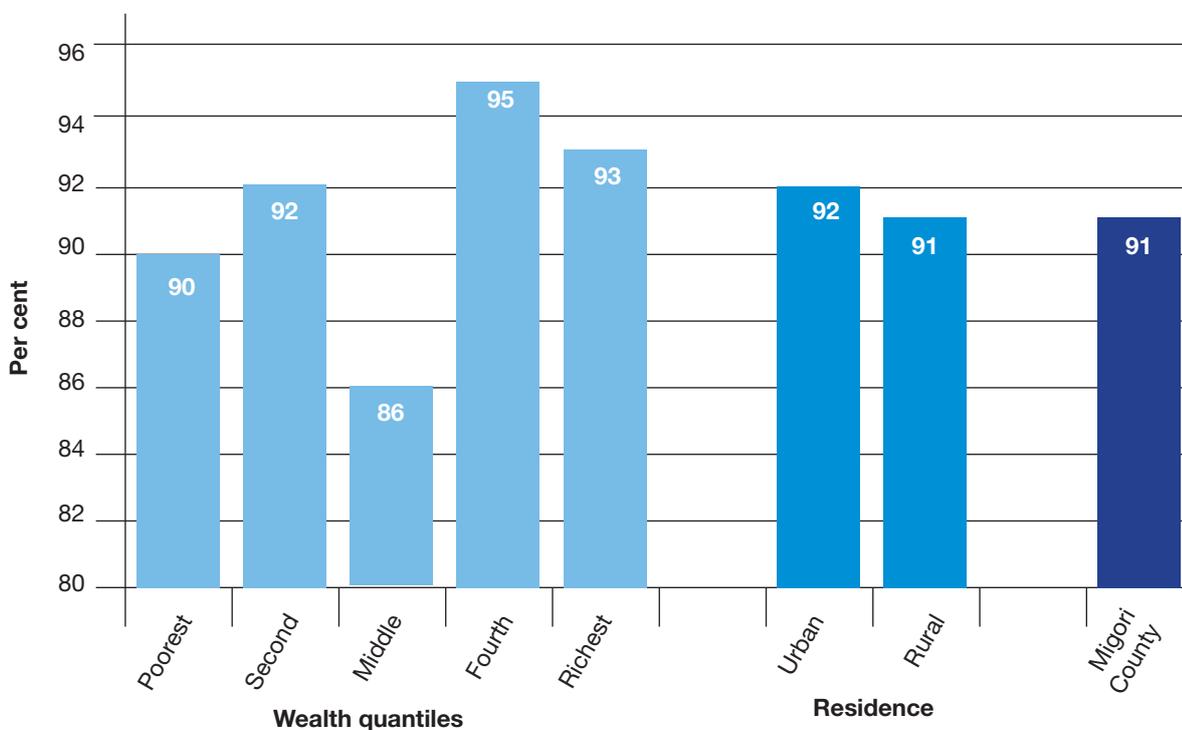
**Table NU.9: Iodized salt consumption**

Per cent distribution of households by consumption of iodized salt, Migori County 2011								
	Percentage of households in which salt was tested	Number of households	Per cent of households with				Total	Number of households in which salt was tested or with no salt
			No salt	Salt test result				
				Not iodized 0 PPM	>0 and <15 PPM	15+ PPM [1]		
<b>Residence</b>								
Urban	93.6	272	5.5	0.0	2.4	92.1	100.0	269
Rural	92.0	856	7.5	0.1	1.4	90.9	100.0	852
<b>Wealth index quintile</b>								
Poorest	90.9	273	8.8	0.0	1.0	90.2	100.0	272
Second	92.2	171	6.8	0.5	0.7	92.0	100.0	169
Middle	89.4	212	9.7	0.0	3.9	86.4	100.0	210
Fourth	94.6	212	5.4	0.0	0.0	94.6	100.0	212
Richest	94.5	260	4.6	0.0	2.6	92.9	100.0	258
<b>Total</b>	<b>92.4</b>	<b>1128</b>	<b>7.1</b>	<b>0.1</b>	<b>1.7</b>	<b>91.2</b>	<b>100.0</b>	<b>1121</b>

[1] MICS indicator 2.16  
**Note:** Adequately iodized salt is defined as salt that contains at least 15 parts per million of iodine

In about 92 per cent of households, salt used for cooking was analysed for iodine content by using salt test kits testing for the content of potassium iodate (Table NU.9). The level of adequate iodine consumption in salt is high in Migori County at 91 per cent. Table NU.9 also shows that in a small proportion of households (7 per cent), there was no salt available. Interestingly, consumption of adequate levels of iodine in salt does not vary greatly by area of residence or wealth quintiles (Figure NU.4).

**Figure NU.4: Percentage of households consuming adequately iodized salt, Migori County, 2011**



## 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 six 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 per cent of children 6-59 months of age receiving at least one high dose vitamin A supplement in the last six months.

In line with the WHO and UNICEF guidelines, the Kenya Ministry of Public Health and Sanitation (MOPHS) recommends that children aged 6-11 months be given one high dose vitamin A capsules and that children aged 12-59 months be given a vitamin A capsule every 6 months. In Kenya, Vitamin A supplementation is linked to immunization services; Vitamin A capsules 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, about half (51 per cent) of children aged 6-59 months received a high dose of vitamin A supplement (Table NU.10). In general, much higher proportions of children are indicated to have received vitamin A supplementation according to mother's report compared to vaccination card records in the 6 months and 12 months period preceding the survey.

The proportion of children receiving vitamin A supplementation increases with increasing level of mother's education and ranges from 47 per cent amongst those whose mothers are uneducated to 59 per cent amongst those whose mothers have secondary level education. The age pattern of vitamin A supplementation shows that the proportion receiving supplementation is highest (72 per cent) in the youngest age group (6-11 months), decreases with increase in age up to 40 per cent in the 36-47 months age group and then increases to 50 per cent in the 48-59 months age group.

**Table NU.10: Children's vitamin A supplementation**

Per cent distribution of children age 6-59 months by receipt of a high dose vitamin A supplement in the last 6 and 12 months, Migori County, 2011							
		Percentage who received Vitamin A according to:				Percentage of children who received Vitamin A during the last 6 months [1]	Number of children age 6-59 months
		Child health book/card/vaccination card in last 12 months	Child health book/card/vaccination card in last 6 months	Mother's report any time prior to 12 months	Mother's report less than 6 months		
<b>Sex</b>	Male	3.2	1.1	57.8	49.4	49.4	405
	Female	4.6	3.0	62.7	51.3	52.3	451
<b>Residence</b>	Urban	6.1	4.1	62.4	47.5	49.2	125
	Rural	3.5	1.7	60.0	50.9	51.2	732
<b>Age in months</b>	6-11	12.4	12.4	74.8	69.7	72.2	96
	12-23	5.5	0.8	77.1	57.1	57.1	152
	24-35	1.6	1.3	58.8	48.1	49.2	200
	36-47	3.0	0.0	47.2	39.9	39.9	227
	48-59	1.7	1.2	57.0	50.1	50.1	181
<b>Mother's education</b>	None	3.9	3.9	54.0	47.4	47.4	57
	Primary	4.2	2.1	59.4	49.3	50.0	693
	Secondary	2.3	1.0	70.4	58.9	58.9	106
<b>Wealth index quintiles</b>	Poorest	3.8	1.9	55.3	44.8	45.3	256
	Second	2.8	1.6	58.7	46.0	46.9	140
	Middle	3.5	0.3	62.7	57.5	57.5	180
	Fourth	3.7	3.2	67.5	57.4	57.4	141
	Richest	5.8	4.1	61.2	48.6	50.2	140
<b>Total</b>		<b>3.9</b>	<b>2.1</b>	<b>60.4</b>	<b>50.4</b>	<b>50.9</b>	<b>857</b>

[1] MICS indicator 2.17

## Low Birth Weight

Weight at birth is a good indicator not only of a mother's health and nutritional status but also the new-born'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 are at 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.

In the developing world, low birth weight stems primarily from the mother's poor health and nutrition. Three factors have most impact: the mother's poor nutritional status before conception, short stature (due mostly to under nutrition and infections during her childhood), and poor nutrition during the pregnancy. Inadequate weight gain during pregnancy is particularly important since it accounts for a large proportion of foetal growth retardation. Moreover, diseases such as diarrhoea and malaria, which are common in many developing countries, can significantly impair foetal growth if the mother becomes infected while pregnant.

In the industrialized world, cigarette smoking during pregnancy is the leading cause of low birth weight. In developed and developing countries alike, teenagers who give birth when their own bodies have yet to finish growing are at a risk of bearing underweight babies.

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 new-borns are not delivered in facilities, and those who are represent only a selected sample of all births.

Because many infants are not weighed at birth and those who are weighed may be a biased sample of all births, the reported birth weights usually cannot be used to estimate the prevalence of low birth weight among all children. Therefore, the percentage of births weighing below 2500 grams is estimated from two items in the questionnaire: the mother's assessment of the child's size at birth (i.e. very small, smaller than average, average, larger than average, very large) and the mother's recall of the child's weight or the weight as recorded on a health card if the child was weighed at birth<sup>6</sup>.

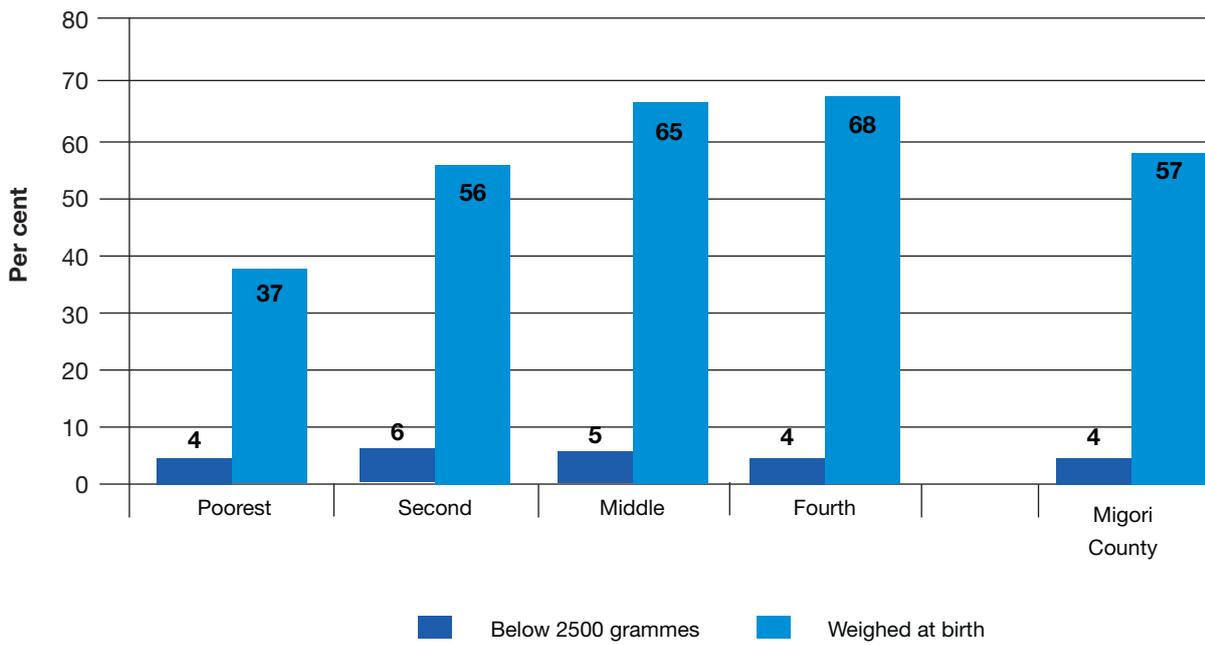
**Table NU.11: Low birth weight infants**

Percentage of last-born children in the 2 years preceding the survey that are estimated to have weighed below 2500 grams at birth and percentage of live births weighed at birth, Migori County, 2011			
	Per cent of live births:		Number of live births in the last 2 years
	Below 2500 grams [1]	Weighed at birth [2]	
<b>Residence</b>			
Urban	(3.5)	(82.5)	41
Rural	4.5	53.5	285
<b>Mother's education</b>			
None	(*)	(*)	6
Primary	4.2	55.8	280
Secondary +	(5.2)	(74.3)	40
<b>Wealth index quintile</b>			
Poorest	4.4	37.3	107
Second	5.5	55.9	52
Middle	4.5	65.0	68
Fourth	3.9	68.4	52
Richest	(3.7)	(79.8)	47
<b>Total</b>	<b>4.4</b>	<b>57.1</b>	<b>326</b>
[1] MICS indicator 2.18			
[2] MICS indicator 2.19			
(*) Not shown, based on less than 25 unweighted cases. ( ) Based on 25-49 unweighted cases.			

Overall, 57 per cent of births are weighed at birth and approximately 4 per cent of infants are estimated to have weighed less than 2500 grams at birth (Table NU.11). The proportion weighed at birth increases by wealth index and ranges from 37 per cent in the poorest wealth quintile to 68 per cent in the fourth richest quintile (Figure NU.5). On the other hand, the proportion of children born with low birth weight does not vary much across levels of household wealth index.

6 For a detailed description of the methodology, see Boerma, J. T., Weinstein, K. I., Rutstein, S.O., and Sommerfelt, A. E., 1996. *Data on Birth Weight in Developing Countries: Can Surveys Help? Bulletin of the World Health Organization*, 74(2), 209-16.

**Figure NU.5: Percentage of infants weighing less than 2500g and those weighed at birth by wealth status, Migori County, 2011**



## VI. Child Health

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### Immunizations

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 the age one year at 90 per cent nationally, with at least 80 per cent coverage in every district or equivalent administrative unit.

The Kenya National Expanded Programme on Immunization (KEPI) recommends that a child should receive a BCG vaccination to protect against tuberculosis, three doses of DPT-HeB-Hib Pentavalent vaccine to protect against diphtheria, pertussis, tetanus, Hepatitis B and invasive *Hemophilus influenzae* type B disease, four doses of polio vaccine and a single dose of measles vaccine by the age of 9 months. Mothers were asked to provide vaccination cards for children under the age of five. Interviewers copied vaccination information from the cards onto the MICS questionnaire.

The percentage of children age 12 to 23 months who received each of the vaccinations is shown in Table CH.1. The denominator for the table is children age 12-23 months, therefore only children who were old enough to be fully vaccinated were counted. In the first and second columns, 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 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.

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

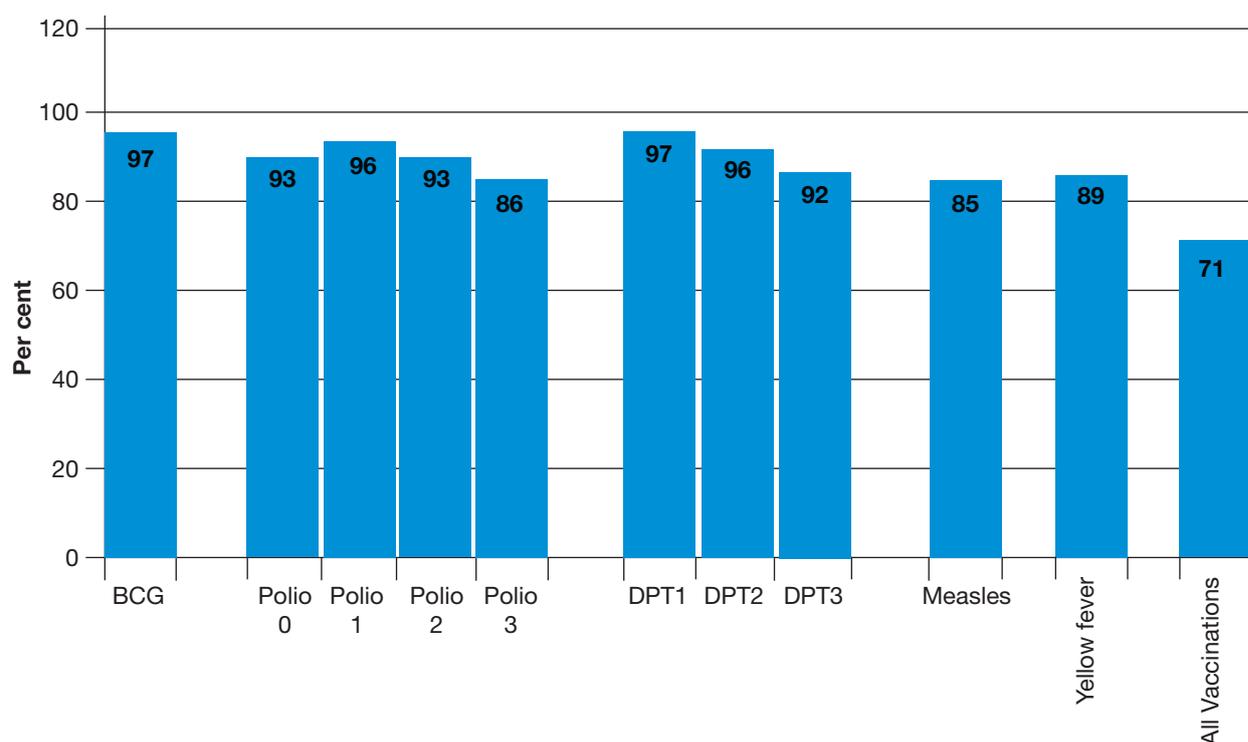
<b>Percentage of children age 12-23 months immunized against childhood diseases at any time before the survey and before the first birthday, Migori County, 2011</b>				
	Vaccinated at any time before the survey according to			Vaccinated by 12 months of age
	Vaccination card	Mother's report	Either	
<b>BCG [1]</b>	82.9	13.7	96.6	96.6
<b>Polio</b>				
At birth	79.9	13.2	93.1	93.1
1	82.1	14.3	96.4	96.4
2	80.8	12.1	92.9	92.9
3 [2]	81.9	5.6	87.5	85.7
<b>DPT</b>				
1	82.9	14.8	97.7	97.1
2	82.9	13.7	96.6	95.8
3 [3]	82.9	11.1	94.0	92.0
<b>Measles [4]</b>	79.3	17.1	96.4	85.9
<b>Yellow fever [5]</b>	83.2	5.8	89.0	89.0
<b>All vaccinations</b>	83.3	0.9	84.3	70.9
<b>No vaccinations</b>	0.0	2.3	2.3	2.3
<b>Number of children age 12-23 months</b>	152	152	152	152
<p>[1] MICS indicator 3.1;            [2] MICS indicator 3.2;            [3] MICS indicator 3.3            [4] MICS indicator 3.4; MDG indicator 4.3            [5] MICS indicator 3.6</p> <p><b>Notes:</b></p> <p>a) For each antigen, the total number of 12-23 month old children vaccinated before 12 months is calculated, as validated by card or mother's recall. To estimate the number of children without a card who have received vaccine before the first birthday, the proportion of vaccinations given during the first year of life is assumed to be the same as for the proportion of children with a card that received the vaccine before first birthday.</p> <p>b) The use of the 12-23 months age group is based on the assumption that measles is given at 9 months of age. In countries where measles vaccination is given later, an older age group should be used.</p> <p>c) Children receiving all vaccinations (fully immunized children) needs to be determined at the country level, in accordance with the existing vaccination schedule and the vaccinations included in the table should be revised / adapted accordingly.</p>				

Overall, 83 per cent of children have health cards (Table CH.2). If the child did not have a card, the mother was asked to recall whether or not the child had received each of the vaccinations and, for DPT and Polio, how many times. The percentage of children age 12 to 23 months who received each of the vaccinations 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 and second columns, 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 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.

There is almost universal coverage of immunisation of BCG and the first doses of Polio and DPT amongst children aged 12-23 month by their 12 month of age in Migori County. For example, 97 per cent of children have received a BCG vaccination, 93 per cent have received first dose of DPT and 93 per cent have received Polio vaccine at birth. However, the proportion of children who have received the second

and third doses of DPT and Polio decreases (Figure CH.1). For instance, DPT vaccine coverage falls to 92 per cent, whilst for Polio; coverage falls to 86 per cent by their third dose. Eighty-nine (89) per cent of children are vaccinated against yellow fever by their first birthday. Measles vaccine coverage is much lower compared to the other vaccines coverage in Migori County with 86 per cent of children being vaccinated. Due to the lower proportions of children who have received their second and third vaccines in Migori County, the overall proportion of children who have received all recommended vaccinations by their first birthday is 71 per cent.

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



The Hepatitis B vaccine is included in the immunization schedule in Kenya as part of the Pentavalent vaccine whilst yellow fever vaccine is recommended (at 9 months) in four districts in Rift Valley Province. Although not on the national immunization schedule, the meningococcal vaccine is also recommended for children between 6 weeks and 1 year. The HiB and Pneumomococcal conjugate (PCV) vaccines were introduced into the national immunization Programme in 2011. However data for immunization before 12 months of age for these vaccines was not collected in this MICS survey.

Table CH.2 shows vaccination coverage rates 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. Overall, 84 per cent of children aged 12-23 months receive all the vaccinations (BCG, 3 doses of DPT, 4 doses of Polio, yellow fever and measles) at any time before the survey. About 2 per cent have not received any of the vaccines. The proportion of children who receive all the vaccinations is higher among boys (89 per cent) than girls (81 per cent).

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

Percentage of children age 12-23 months currently vaccinated against childhood diseases, Migori County, 2011																
		Percentage of children who received:										Percentage with vaccination card seen	Number of children age 12-23 months			
		BCG		Polio			DPT			Measles	Yellow fever			None	All	
		At birth	1	2	3	1	2	3								
<b>Sex</b>																
Male	100.0	96.6	96.6	93.6	90.7	100.0	97.2	97.2	97.2	98.5	94.3	0.0	89.4	88.3	61	
Female	94.3	90.8	96.2	92.4	85.4	96.2	96.2	91.9	95.0	85.4	85.4	3.8	80.9	79.3	91	
<b>Area</b>																
Urban	(100.0)	(95.8)	(95.6)	(91.3)	(90.1)	(100.0)	(100.0)	(95.6)	(95.6)	(95.6)	(80.0)	(0)	(74.5)	(74.5)	26	
Rural	95.8	92.5	96.5	93.2	87.0	97.3	95.9	93.6	96.5	90.9	90.9	2.7	86.3	84.7	126	
<b>Mother's education</b>																
None	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	4	
Primary	97.1	93.4	97.8	93.6	88.6	98.5	97.2	95.0	96.9	88.0	88.0	1.5	84.7	83.0	126	
Secondary	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	22	
<b>Wealth index quintile</b>																
Poorest	(95.6)	(88.8)	(95.6)	(94.4)	(89.2)	(95.6)	(95.6)	(94.4)	(95.6)	(95.6)	(91.5)	(4.4)	(87.5)	(87.5)	47	
Second	(94.0)	(100.0)	(100.0)	(94.0)	(87.9)	(100.0)	(100.0)	(96.8)	(100.0)	(100.0)	(87.9)	(0)	(87.9)	(87.9)	30	
Middle	(95.2)	(90.3)	(92.2)	(92.2)	(87.8)	(95.2)	(92.2)	(87.8)	(92.2)	(92.2)	(92.2)	(4.8)	(87.8)	(82.9)	29	
Fourth	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	20	
Richest	(100.0)	(100.0)	(95.6)	(88.1)	(80.3)	(100.0)	(96.8)	(92.4)	(95.6)	(80.0)	(80.0)	(0)	(70.4)	(70.4)	26	
<b>Total</b>	<b>96.6</b>	<b>93.1</b>	<b>96.4</b>	<b>92.9</b>	<b>87.5</b>	<b>97.7</b>	<b>96.6</b>	<b>94.0</b>	<b>96.4</b>	<b>89.0</b>	<b>89.0</b>	<b>2.3</b>	<b>84.3</b>	<b>82.9</b>	<b>152</b>	

(\*) Not shown, based on less than 25 unweighted cases.

() Based on 25-49 unweighted cases.

**Notes:**

- a) In this table, the calculation is the same as the third column of Table CH.1 (i.e. the child's age at vaccination is not taken into account). Children who were vaccinated at any time before the survey are included in the numerator.
- b) Children receiving all vaccinations (fully immunized children) needs to be determined at the country level, in accordance with the existing vaccination schedule. Vaccinations included in the table should be revised/adapted accordingly

## 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. One of 'A World Fit for Children's goal is to eliminate maternal and neonatal tetanus by 2005.

Prevention of maternal and neonatal tetanus is to assure all pregnant women receive at least two doses of tetanus toxoid vaccine. However, if women have not received two doses of the vaccine during the pregnancy, they (and their new-born) are also considered to be protected if the following conditions are met:

- Received at least two doses of tetanus toxoid vaccine, the last within the prior 3 years;
- Received at least 3 doses, the last within the prior 5 years;
- Received at least 4 doses, the last within 10 years;
- Received at least 5 doses during lifetime.

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. Overall, 55 per cent of women who have had a live birth in the last 2 years are protected against tetanus. The proportion of women who have received neonatal tetanus is lowest (44 per cent) amongst women from the lowest quintile than in all other wealth quintiles.

**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, Migori County, 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:				Protected against tetanus [1]	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		
<b>Area</b>							
Urban	(57.8)	(2.8)	(0.0)	(0.0)	(0.0)	(60.6)	41
Rural	47.1	6.8	0.0	0.0	0.3	54.3	285
<b>Education</b>							
None	(*)	(*)	(*)	(*)	(*)	(*)	6
Primary	47.8	5.8	0.0	0.0	0.3	53.9	280
Secondary+	(53.8)	(11.3)	(0.0)	(0.0)	(0.0)	(65.1)	40
<b>Wealth index quintile</b>							
Poorest	38.1	5.1	0.0	0.0	0.9	44.1	107
Second	51.5	7.4	0.0	0.0	0.0	58.9	52
Middle	49.6	6.9	0.0	0.0	0.0	56.4	68
Fourth	57.3	10.6	0.0	0.0	0.0	67.9	52
Richest	(56.9)	(2.5)	(0.0)	(0.0)	(0.0)	(59.4)	47
<b>Total</b>	<b>48.4</b>	<b>6.3</b>	<b>0.0</b>	<b>0.0</b>	<b>0.3</b>	<b>55.1</b>	<b>326</b>
[1] MICS indicator 3.7							
(*) Not shown, based on less than 25 unweighted cases.							
() Based on 25-49 unweighted cases							

About half (48 per cent) of the women receive at least two doses of tetanus toxoid vaccine during pregnancy as recommended. The proportion of women who have received at least two doses during their pregnancy increases with increasing levels of the household wealth index. For example, only 38 per cent of women who reside in the poorest wealth quintile have received the recommended dose compared to 57 per cent of women who reside in the fourth richest quintile.

## 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 per cent.

The indicators are:

- Prevalence of diarrhoea
- Oral rehydration therapy (ORT)
- Home management of diarrhoea
- ORT with continued feeding

In the MICS questionnaire, mothers (or caretakers) were asked to report whether their child had had diarrhoea in the two weeks prior to the survey. If so, the mother was asked a series of questions about what the child had to drink and eat during the episode and whether this was more or less than the child usually ate and drank.

Overall, 13 per cent of children under five in Migori County had diarrhoea in the two weeks preceding the survey – 15 per cent in urban areas and 13 per cent in rural areas (Table CH.4). The proportion of children with diarrhoea is higher amongst boys (15 per cent) than girls (11 per cent). Children in the 24-35 months age group have the highest prevalence of diarrhoea (20 per cent) whilst a lower prevalence was observed amongst those aged 36-47 months (9 per cent) and 48-59 months (7 per cent).

**Table CH.4: Oral rehydration solutions and recommended homemade fluids**

Percentage of children age 0-59 months with diarrhoea in the last two weeks, and treatment with oral rehydration solutions and recommended homemade fluids, Migori County, 2011							
	Had diarrhoea in last two weeks	Number of children age 0-59 months	Children with diarrhoea who received:				Number of children aged 0-59 months with diarrhoea
			ORS (Fluid from ORS packet or pre-packaged ORS fluid)	Recommended homemade fluids		ORS or any recommended homemade fluid	
				Sugar and salt solution*	Any recommended homemade fluid		
<b>Sex</b>							
Male	15.3	440	20.2	3.6	3.6	22.3	67
Female	10.7	490	18.5	9.8	9.8	28.3	52
<b>Area</b>							
Urban	15.4	126	(*)	(*)	(*)	(*)	19
Rural	12.5	804	20.1	6.1	6.1	25.2	100
<b>Age in months</b>							
0-11	13.9	170	20.2	(*)	(*)	(*)	24
12-23	15.5	152	45.3	(*)	(*)	(*)	24
24-35	20.1	200	10.1	(3.9)	(3.9)	(14.0)	40
36-47	8.8	227	15.7	(*)	(*)	(*)	20
48-59	6.8	181	5.4	(*)	(*)	(*)	12
<b>Mother's education</b>							
None	7.2	57	31.1	(*)	(*)	(*)	4
Primary	14.1	759	17.7	5.3	5.3	23.0	107
Secondary	7.3	114	36.7	(*)	(*)	(*)	8
<b>Wealth index quintile</b>							
Poorest	14.1	286	18.0	(6.1)	(6.1)	(21.7)	40
Second	14.8	152	23.1	(*)	(*)	(*)	23
Middle	10.5	199	28.5	(*)	(*)	(*)	21
Fourth	13.3	151	3.5	(*)	(*)	(*)	20
Richest	11.2	143	26.2	(*)	(*)	(*)	16
<b>Total</b>	<b>12.9</b>	<b>930</b>	<b>19.5</b>	<b>6.3</b>	<b>6.3</b>	<b>25.0</b>	<b>120</b>
(*) Not shown, based on less than 25 unweighted cases. (.) Based on 25-49 unweighted cases							

Table CH.4 also shows the percentage of children receiving various types of recommended liquids during the episode of diarrhoea. Since mothers were able to name more than one type of liquid, the percentages do not necessarily add to 100. Only one in four (25 per cent) of children with diarrhoea receive ORS or recommended homemade fluids. Twenty per cent of children received fluids from ORS packets or pre-packaged ORS fluids, whereas 6 per cent received sugar and salt solutions and other recommended homemade fluids. The proportion receiving ORS or other recommended homemade fluids is slightly higher for girls (28 per cent) than boys (22 per cent).

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

Per cent 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, Migori County, 2011		Num ber of children age 0-59 months	Had diarrhoea in last two weeks	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 about the same (or some-what less)	Missing/DK	Total	Given nothing to eat	Given much less to eat	Given some-what less to eat	Given about the same to eat		Given more to eat	Total
<b>Sex</b>	Male	440	15.3	26.1	31.7	42.2	100.0	8.8	50.9	18.5	19.9	1.9	100.0	67
	Female	490	10.7	22.4	35.7	41.9	100.0	6.9	38.9	21.3	32.9	0.0	100.0	52
<b>Area</b>	Urban	126	15.4	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	19
	Rural	804	12.5	26.9	37.0	36.1	100.0	9.5	43.4	22.1	23.7	1.3	100.0	100
<b>Age in months</b>	0-11	170	13.9	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	24
	12-23	152	15.5	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	24
	24-35	200	20.1	(28.6)	(24.2)	(47.2)	(100.0)	(8.5)	(40.5)	(18.6)	(29.2)	(3.2)	(100.0)	40
	36-47	227	8.8	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	20
<b>Mother's education</b>	48-59	181	6.8	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	12
	None	57	7.2	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	4
	Primary	759	14.1	26.0	34.4	39.7	100.0	8.4	46.5	20.3	23.6	1.2	100.0	107
<b>Wealth index quintiles</b>	Secondary	114	7.3	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	8
	Poorest	286	14.1	(22.9)	(34.9)	(42.2)	(100.0)	(10.9)	(37.5)	(27.6)	(20.8)	(3.2)	(100.0)	40
	Second	152	14.8	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	23
	Middle	199	10.5	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	21
	Fourth	151	13.3	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	20
<b>Total</b>	Richest	143	11.2	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	16
		<b>930</b>	<b>12.9</b>	<b>24.5</b>	<b>33.4</b>	<b>42.0</b>	<b>100.0</b>	<b>8.0</b>	<b>45.6</b>	<b>19.8</b>	<b>25.6</b>	<b>1.1</b>	<b>100.0</b>	<b>120</b>

(\*) Not shown, based on less than 25 unweighted cases.

() Based on 25-49 unweighted cases

Table CH.5 shows the distribution of children age 0-59 months with diarrhoea by amount of liquids and food given during episode of diarrhoea. Forty six (46) per cent of children with diarrhoea are given much less to eat and 8 per cent eat nothing during their diarrhoea episode, whilst 26 per cent eat the same amount. About 25 per cent are given much less to drink whilst 33 per cent are given about the same or somewhat less to drink (Table CH.5).

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 the percentage of children with diarrhoea who received other treatments. Overall, 26 per cent of children with diarrhoea receive ORS or increased fluids whilst 73 per cent receive ORT (ORS or recommended homemade fluids or increased fluids).

Combining the information in Table CH.5 with that in Table CH.4 on oral rehydration therapy, it is observed that 59 per cent of children receive ORT with continued feeding as is the recommendation. About 62 per cent of female children receive ORT with continued feeding , while the corresponding figure for male is 56 per cent. For children who did not receive ORT with continued feeding, more than 1 out of every five children (27 per cent) was not given any treatment or drug.

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

		Children with diarrhoea who received other treatments, Migori County, 2011										Number of children aged 0-59 months with diarrhoea										
		Children with diarrhoea who received:					Other treatment:															
Sex	Area	Age in months	Mother's education	Wealth index quintiles	Total	ORT (ORS or recommended homemade fluids or increased fluids)	ORT with continued feeding [1]	Pill or syrup: Antibiotic	Pill or syrup: Ant motility	Pill or syrup: Zinc	Pill or syrup: Other	Pill or syrup: Unknown	Injection: Antibiotic	Injection: Non-antibiotic	Injection: Unknown	Intravenous	Home remedy/ Herbal medicine	Other	Not given any treatment or drug			
Male						24.2	71.5	56.3	26.4	2.1	10.5	0.0	6.1	11.2	0.0	3.6	0.0	12.7	6.4	28.5	67	
Female						28.3	74.2	62.1	35.5	5.6	9.7	0.0	6.0	7.4	1.7	1.6	6.7	14.8	2.7	25.8	52	
	Urban					(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	19
	Rural					26.5	69.2	54.9	29.8	4.4	8.7	0.0	7.3	3.8	0.9	3.2	2.3	15.1	3.5	30.8	100	
		0-11				(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	24
		12-23				(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	24
		24-35				(17.1)	(65.5)	(51.4)	(16.4)	(7.1)	(4.3)	(0.0)	(10.1)	(18.1)	(0.0)	(3.5)	(3.6)	(18.5)	(0.0)	(34.5)	40	
		36-47				(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	20
		48-59				(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	12
		None				(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	4
		Primary				24.2	72.2	57.6	27.2	4.1	9.0	.0	5.9	10.3	0.8	3.0	3.3	15.2	5.4	27.8	107	
		Secondary				(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	8
		Poorest				(24.9)	(70.5)	(55.8)	(28.7)	(8.6)	(4.4)	(0)	(9.5)	(3.8)	(2.2)	(2.6)	(3.6)	(17.1)	(5.1)	(29.5)	40	
		Second				(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	23
		Middle				(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	21
		Fourth				(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	20
		Richest				(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	16
		<b>Total</b>				<b>26.0</b>	<b>72.7</b>	<b>58.9</b>	<b>30.4</b>	<b>3.7</b>	<b>10.2</b>	<b>0.0</b>	<b>6.1</b>	<b>9.6</b>	<b>0.7</b>	<b>2.7</b>	<b>2.9</b>	<b>13.6</b>	<b>4.8</b>	<b>27.3</b>	<b>120</b>	

[1] MICS indicator 3.8

(\*) Not shown, based on less than 25 unweighted cases.

( ) Based on 25-49 unweighted cases.

## Care Seeking and Antibiotic Treatment of Pneumonia

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

Children with suspected pneumonia are those who had an illness with a cough accompanied by rapid or difficult breathing and whose symptoms were NOT due to a problem in the chest and a blocked nose.

The indicators are:

- Prevalence of suspected pneumonia
- Care seeking for suspected pneumonia
- Antibiotic treatment for suspected pneumonia
- Knowledge of the danger signs of pneumonia

**Table CH.7: Care seeking for suspected pneumonia and antibiotic use during suspected pneumonia, Migori County, 2011**

		Children with suspected pneumonia who were taken to:											Any appropriate provider [1]	Percentage of children with suspected pneumonia who received antibiotics in the last two weeks [2]	Number of children age 0-59 months with suspected pneumonia in the last two weeks			
		Public sector: Government hospital	Public sector: Government health centre	Public sector: Government dispensary	Other public	Private: Mission hospital	Private hospital / clinic	Private nursing/ maternity home	Private pharmacy	Other private medical	Mobile clinic	Community health worker				Shop	Traditional practitioner	Other
Sex	Male	-9.1	-14.2	-22	0	0	-6	0	-5.8	0	0	0	0	0	0	-51.2	-41.7	39
	Female	-7.1	-7.7	-20.9	0	-1	-3.8	0	-8.2	-3.4	0	0	-2.9	0	0	-46.7	-54.5	31
Area	Urban	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	7
	Rural	7	12.5	22.4	0	0	5.5	0	5	1.7	0	1.4	0	0	50.6	46.4	64	
Age in months	0-11	0	7.2	19.1	0	2.4	15.3	0	6.9	0	0	0	0	0	44	31.8	13	
	12-23	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	8
	24-35	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	15
	36-47	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	14
	48-59	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	19
Mother's education	None	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	2
	Primary	6.8	11.4	22.6	0	0.5	4.2	0	7.7	1.7	0	1.4	0	0	48.6	47.4	63	
	Secondary	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	6
Wealth index quintiles	Poorest	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	24
	Second	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	18
	Middle	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	9
	Fourth	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	10
	Richest	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	8
<b>Total</b>	<b>7.6</b>	<b>11.3</b>	<b>21.5</b>	<b>0</b>	<b>0.4</b>	<b>5</b>	<b>0</b>	<b>6.9</b>	<b>1.5</b>	<b>0</b>	<b>1.3</b>	<b>0</b>	<b>0</b>	<b>49.2</b>	<b>47.3</b>	<b>70</b>		

[1] MICS indicator 3.9

[2] MICS indicator 3.10

(\*) Not shown, based on less than 25 unweighted cases.

() Based on 25-49 unweighted cases

**Note:** In this table, percentages of children taken to various providers will not add to 100 since some children may have been taken to see more than one type of provider.

Table CH.7 presents the prevalence of suspected pneumonia and, if care was sought outside the home, the site of care. Eight per cent of children aged 0-59 months are reported to have had symptoms of pneumonia during the two weeks preceding the survey. About 9 per cent of male children were reported of having suffered from suspected pneumonia compared to 6 per cent among female counterparts. Likewise, prevalence of suspected pneumonia is comparable amongst children who reside in rural areas compared to urban areas (8 per cent and 5 per cent). Of all children with suspected pneumonia, only about half (49 per cent) are taken to an appropriate provider, with the biggest proportion (20 per cent) of children taken to dispensaries.

Table CH.7 also presents the use of antibiotics for the treatment of suspected pneumonia in under-5s. Less than half (47 per cent) of children under 5 years of age with suspected pneumonia had received an antibiotic during the two weeks prior to the survey.

## Solid Fuel Use

More than 3 billion people around the world rely on solid fuels (biomass and coal) for their basic energy needs, including cooking and heating. Cooking and heating with solid fuels leads to high levels of indoor smoke, a complex mix of health-damaging pollutants. The main problem with the use of solid fuels is products of incomplete combustion, including carbon monoxide, polyaromatic hydrocarbons, sulphur dioxide, and other toxic elements. Use of solid fuels increases the risks of acute respiratory illness, pneumonia, chronic obstructive lung disease, cancer, and possibly tuberculosis, low birth weight, cataracts, and asthma. The primary indicator is the proportion of the population using solid fuels as the primary source of domestic energy for cooking.

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

<b>Percentage 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, Migori County, 2011</b>										
	Percentage of household members in households using:									Number of household members
	Natural gas	Biogas	Kerosene	Charcoal	Wood	Agricultural crop residue	Missing	Total	Solid fuels for cooking	
<b>Area</b>										
Urban	4.1	1.2	3.3	76.8	14.5	0.0	0.1	100.0	91.3	994
Rural	0.0	0.0	0.0	4.5	94.5	0.7	0.2	100.0	99.7	4338
<b>Education of household head</b>										
None	5.3	0.8	1.9	14.9	77.1	0.0	0.0	100.0	92.0	699
Primary	0.1	0.0	0.4	12.2	86.1	0.9	0.3	100.0	99.2	3427
Secondary	0.0	0.5	0.7	36.5	62.1	0.0	0.2	100.0	98.6	1204
<b>Wealth index quintiles</b>										
Poorest	0.0	0.0	0.0	0.0	99.5	0.5	0.0	100.0	100.0	1335
Second	0.0	0.0	0.0	0.0	98.8	1.0	0.2	100.0	99.8	826
Middle	0.0	0.0	0.3	1.9	95.6	1.6	0.7	100.0	99.0	1108
Fourth	0.0	0.0	1.4	21.4	77.2	0.0	0.0	100.0	98.6	977
Richest	3.8	1.1	1.7	67.3	26.0	0.0	0.2	100.0	93.3	1086
<b>Total</b>	<b>0.8</b>	<b>0.2</b>	<b>0.6</b>	<b>18.0</b>	<b>79.5</b>	<b>0.6</b>	<b>0.2</b>	<b>100.0</b>	<b>98.2</b>	<b>5333</b>
[1] MICS indicator 3.11 (* Not shown, based on less than 25 unweighted cases)										

Overall, the majority (98 per cent) of household members in Migori County are using solid fuels for cooking (Table CH.9). All rural residents rely on solid fuel, whereas it is 91 per cent of urban residents. All those who reside in households that fall in the poorest quintile use solid fuel, and this proportion drops across the wealth quintiles to 93 per cent of residents from households that fall in the richest quintile. The most common sources of solid fuel is wood (80 per cent), followed by charcoal (18 per cent).

Solid fuel use alone is a poor proxy for indoor air pollution, since the concentration of the pollutants is different when the same fuel is burnt in different stoves or fires. Use of closed stoves with chimneys minimizes indoor pollution, while open stove or fire with no chimney or hood means that there is no protection from the harmful effects of solid fuels. Solid fuel use by place of cooking is depicted in Table CH.10.

The largest proportions of Migori County household members use a separate building as a kitchen (44 per cent). The rest of the residents either use a separate room used as a kitchen (24 per cent), room used for living or sleeping (22 per cent) or the outdoors (9 per cent).

The proportion of households members cooking in a place used for living or sleeping is high in urban areas (48 per cent) or those in households where the head has secondary level education (31 per cent).

On the contrary, the proportion of residents cooking in a separate building used as a kitchen is highest in rural households (51 per cent versus 12 per cent in urban areas), and those in households headed by one with no education (49 per cent).

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

Percentage distribution of household members in households using solid fuels by place of cooking, Migori County, 2011								
		Place of cooking:					Total	Number of household members in households using solid fuels for cooking
		In a room used for living/sleeping	In a separate room used as kitchen	In a separate building used as kitchen	Outdoors	Missing		
<b>Area</b>	Urban	45.7	35.4	12.1	5.6	1.2	100.0	907
	Rural	17.2	21.3	51.2	9.5	.8	100.0	4327
<b>Education of household head</b>	None	16.0	29.9	49.1	4.5	.4	100.0	643
	Primary	20.3	22.4	45.8	10.3	1.2	100.0	3401
	Secondary+	30.7	24.5	37.8	7.0	.1	100.0	1187
<b>Wealth index quintiles</b>	Poorest	27.3	17.6	41.1	13.8	.1	100.0	1335
	Second	15.3	26.1	49.0	8.7	.9	100.0	824
	Middle	17.7	15.5	58.2	7.2	1.4	100.0	1097
	Fourth	17.2	22.5	51.4	8.5	.4	100.0	963
	Richest	30.3	40.2	23.4	4.5	1.7	100.0	1013
<b>Total</b>		<b>22.1</b>	<b>23.8</b>	<b>44.4</b>	<b>8.8</b>	<b>.9</b>	<b>100.0</b>	<b>5234</b>

(\*) Not shown, based on less than 25 unweighted cases

## Malaria

Malaria is a leading cause of death of children under age five in Kenya. It also contributes to anaemia in children and is a common cause of school absenteeism. Preventive measures, especially the use of mosquito nets treated with insecticide (ITNs), can dramatically reduce malaria mortality rates among children. In Kenya, the Ministry of Public Health and Sanitation (MOPHS) and the Ministry of Medical

Services (MOMS) recommend that, owing to widespread resistance to anti-malarial drugs chloroquine, SP (sulfadoxine-pyrimethamine) and amodiaquine, these have been replaced with artemisinin combinations therapy for first line treatment of malarial fevers in Kenya. All patients with fever or history of fever should be tested for malaria and only patients who test positive should be treated with artemisinin combination therapy.

Children with severe malaria symptoms, such as fever or convulsions, should be taken to a health facility. Also, children recovering from malaria should be given extra liquids and food and younger children should continue breastfeeding. To prevent malaria in pregnancy, Intermittent Preventive Treatment of malaria in Pregnancy (IPTp) with 3 doses of Sulphadoxine – Pyrimethamine (SP) is recommended. To augment malaria control efforts, integrated vector control methods (such as the use of long lasting insecticide treated nets (LLINs) and indoor residual spraying (IRS) are recommended.

The MICS 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, as well as anti-malarial treatment, IPTp, and IRS of households.

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

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 spraying through an indoor residual spraying (IRS) campaign in the last 12 months, Migori County, 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 [1]	Percentage of households with at least one ITN or received IRS during the last 12 months [2]	Number of households
<b>Area</b>	Urban	83.0	81.5	82.0	87.9	272
	Rural	92.1	88.9	91.9	97.2	856
<b>Education of household head</b>	None	90.2	87.4	89.9	96.5	190
	Primary	88.5	85.6	88.2	93.7	698
	Secondary	93.8	91.8	93.8	97.3	239
<b>Wealth index quintiles</b>	Poorest	91.2	90.0	91.5	96.5	273
	Second	89.9	86.8	89.8	96.7	171
	Middle	92.3	87.2	92.3	96.5	212
	Fourth	85.4	83.0	84.6	91.2	212
	Richest	90.2	87.5	89.2	94.0	260
<b>Total</b>		<b>89.9</b>	<b>87.1</b>	<b>89.5</b>	<b>94.9</b>	<b>1128</b>
[1] MICS indicator 3.12, 2 MICS indicator 3.13						
(*) Not shown, based on less than 25 unweighted cases.						

In Migori County, the survey results indicate a high level of net ownership with 90 per cent of households having at least one mosquito net. Almost 9 out of every 10 households have at least one ITN and 95 per cent of households have at least one ITN or have received IRS during the last 12 months prior to the survey (Table CH.11). This is attributable to the rapid scale up of ITNs in the county. The largest proportions of households that have either one ITN or have received IRS in the last 12 months are in the rural areas (97 per cent). The proportions across levels of household wealth index are very comparable with the range of 91 per cent among those from the fourth richest quintiles to 97 per cent among those from the poorest, second and middle household wealth index groups.

**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, Migori County, 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: Slept under any mosquito net [1]	Percentage of children who: Slept under an insecticide treated net [2]	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
<b>Sex</b>	Male	100.0	440	79.3	78.4	440	84.3	410
	Female	100.0	490	75.8	75.1	490	79.1	465
<b>Area</b>	Urban	100.0	126	72.5	72.5	126	80.6	113
	Rural	100.0	804	78.2	77.4	804	81.7	762
<b>Age in months</b>	0-11	100.0	170	85.7	85.7	170	89.6	162
	12-23	100.0	152	85.9	85.0	152	88.5	146
	24-35	100.0	200	80.3	79.7	200	85.1	188
	36-47	100.0	227	69.6	68.6	227	74.3	210
	48-59	100.0	181	69.4	68.0	181	72.8	169
<b>Mother's education</b>	None	100.0	57	55.0	53.3	57	56.8	53
	Primary	100.0	759	78.5	77.9	759	83.1	712
	Secondary	100.0	114	81.6	80.5	114	83.6	110
<b>Wealth index quintiles</b>	Poorest	100.0	286	71.3	70.9	286	75.5	268
	Second	100.0	152	81.7	80.4	152	85.8	142
	Middle	100.0	199	81.2	80.3	199	83.5	191
	Fourth	100.0	151	80.2	79.4	151	86.3	139
	Richest	100.0	143	77.2	76.5	143	81.5	134
<b>Total</b>		<b>100.0</b>	<b>930</b>	<b>77.5</b>	<b>76.7</b>	<b>930</b>	<b>81.5</b>	<b>875</b>
[1] MICS indicator 3.14,								
[2] MICS indicator 3.15; MDG indicator 6.7								

Results indicate that 78 per cent of children under the age of five slept under any mosquito net the night prior to the survey and 77 per cent slept under an ITN (Table CH.12). Older children between ages 48-59 months are not in any way disadvantaged to sleep under any net or one that is treated with insecticide (69 per cent and 68 per cent respectively). Likewise, the proportion of children who sleep under any net or an ITN is lower among those whose mothers have no education or those in households in the poorest quintile.

**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, Migori County 2011								
		Percentage of pregnant women who stayed in the household the previous night	Number of pregnant women	Percentage of pregnant women who: Slept under any mosquito net	Percentage of pregnant women who: Slept under an insecticide treated net [1]	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
<b>Area</b>	Urban	(*)	9	(*)	(*)	9	(*)	7
	Rural	100.0	53	84.6	82.2	53	(89.5)	49
<b>Age in months</b>	15-19	(*)	11	(*)	(*)	11	(*)	11
	20-24	(*)	21	(*)	(*)	21	(*)	21
	25-29	(*)	20	(*)	(*)	20	(*)	15
	30-34	(*)	6	(*)	(*)	6	(*)	5
	35-39	(*)	2	(*)	(*)	2	(*)	2
	40-44	(*)	2	(*)	(*)	2	(*)	2
<b>Education</b>	None	(*)	1	(*)	(*)	1	(*)	1
	Primary	(100.0)	46	(81.9)	(79.1)	46	(92.2)	39
	Secondary +	(*)	15	(*)	(*)	15	(*)	15
<b>Wealth index quintiles</b>	Poorest	(*)	18	(*)	(*)	18	(*)	17
	Second	(*)	7	(*)	(*)	7	(*)	7
	Middle	(*)	16	(*)	(*)	16	(*)	15
	Fourth	(*)	10	(*)	(*)	10	(*)	8
	Richest	(*)	11	(*)	(*)	11	(*)	9
<b>Total</b>		<b>100.0</b>	<b>62</b>	<b>81.2</b>	<b>79.1</b>	<b>62</b>	<b>88.4</b>	<b>56</b>
[1] MICS indicator 3.19								
(*) Not shown, based on less than 25 unweighted cases. ( ) Based on 25-49 unweighted cases.								

Table CH.13 presents the proportion of pregnant women who slept under a mosquito net during the night prior to the survey. About 81 per cent of pregnant women slept under any mosquito net the night prior to the survey and 79 per cent slept under an ITN.

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

		Children with a fever in the last two weeks who received anti-malarial drugs, Migori County, 2011											Children with a fever in the last two weeks who were treated with:				
		Had a fever in last two weeks	Number of children age 0-59 months	Anti-malarials: Fansidar	Anti-malarials: Chloroquine	Anti-malarials: Armodiaquine	Anti-malarials: Quinine	Anti-malarials: Artemisinin based combinations	Anti-malarials: Other Anti-malarial	Anti-malarials: Any anti-malarial drug [1]	Other medications: Paracetamol/ Panadol/ Acetaminophan	Other medications: Aspirin	Other medications: Ibuprofen	Other medications: Other	Don't know	Percentage who took an anti-malarial drug same or next day [2]	Number of children with fever in last two weeks
Sex	Male	17.4	440	1.2	3.0	4.4	9.1	33.6	4.2	49.8	70.4	1.6	4.0	11.5	2.4	40.4	76
	Female	21.5	490	1.2	4.5	2.9	3.7	44.4	2.8	56.1	69.8	4.3	10.5	6.8	1.8	45.1	105
Area	Urban	11.2	126	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	14
	Rural	20.8	804	1.1	4.2	2.7	4.3	40.0	3.6	52.3	68.2	3.4	7.7	9.3	2.2	41.9	168
Age in months	0-11	16.6	170	(0)	(3.2)	(5.9)	(10.7)	(27.2)	(10.9)	(45.8)	(65.3)	(0.0)	(2.1)	(14.6)	(6.6)	(39.3)	28
	12-23	20.1	152	(6.1)	(4.5)	(0)	(11.7)	(40.2)	(0.0)	(59.4)	(64.9)	(4.2)	(16.7)	(2.6)	(0.0)	(54.5)	31
	24-35	24.4	200	(0)	(2.4)	(4.2)	(5.7)	(34.2)	(3.6)	(45.9)	(71.6)	(9.1)	(3.9)	(6.8)	(8.0)	(33.7)	49
	36-47	22.4	227	0.6	7.0	4.2	2.9	53.7	0.0	65.5	75.7	0.0	10.9	11.5	1.0	54.5	51
Mother's education	48-59	12.9	181	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	23
	None	16.9	57	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	10
	Primary	20.4	759	0.8	4.3	3.3	6.7	41.2	2.6	55.0	70.1	2.9	8.0	7.1	1.6	44.2	155
Wealth index quintiles	Secondary	14.9	114	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	17
	Poorest	21.5	286	3.0	3.4	1.0	3.3	31.9	2.1	43.1	72.8	2.9	11.0	4.8	3.8	33.6	62
	Second	23.2	152	(9.0)	(7.3)	(4.0)	(5.3)	(42.2)	(0.0)	(56.2)	(60.3)	(1.6)	(10.7)	(8.8)	(1.1)	(39.6)	35
	Middle	20.2	199	(0.0)	(2.9)	(1.4)	(3.8)	(47.1)	(3.9)	(57.8)	(79.1)	(8.5)	(3.4)	(7.6)	(2.3)	(47.6)	40
	Fourth	15.2	151	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	23
Total	Richest	15.2	143	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	22
		19.5	930	1.2	3.9	3.5	6.0	39.8	3.4	53.4	70.0	3.2	7.8	8.8	2.0	43.1	182

[1] MICS indicator 3.18; MDG indicator 6.8

[2] MICS indicator 3.17

(\*) Not shown, based on less than 25 unweighted cases. ( ) Based on 25-49 unweighted cases.

Questions on the prevalence and treatment of fever were asked for all children under age five. One in 5 (20 per cent) of under five children were ill with fever in the two weeks prior to the survey (Table CH.14). The proportions were lower for male versus female children, those who reside in urban regions or those from the richest households (17 versus 22 per cent, 11 per cent and 15 per cent respectively).

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, two out of every five (40 per cent) children with fever in the last two weeks were treated with artemisinin combination drugs (ACT), the recommended first line anti-malarial medication, whereas slightly more than half (53 per cent) received any anti-malarial medication. The proportion was higher among Female children (i.e. 56 per cent were treated with any anti-malarial drugs compared to 50 per cent among male counterparts).

Other than anti-malarial medication, children with fever are given other types of medicines including anti-pyretics such as paracetamol (70 per cent), ibuprofen (8 per cent), aspirin (3 per cent), and others (8 per cent).

About 43 per cent of children received anti-malarial drugs within 24 hours or on the next day after onset of symptoms. The promptness of treatment with artemisinin combination treatments or any other kind of anti-malarial medication is 45 per cent for girls and 40 per cent for boys.

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 the Migori County 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. Overall, 87 per cent of women aged 15-49 who have had a live birth in the 2 years preceding the survey received antenatal care. Less than half (45 per cent) received at least 1 dose of SP/Fansidar whilst only about 1 in 3 (33 per cent) received the recommended IPT dose (2 or more doses of SP/Fansidar times).

**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, Migori County, 2011							
		Percentage of women who received antenatal care (ANC)	Number of women who gave birth in the preceding 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	SP/Fansidar two or more times [1]	
<b>Area</b>	Urban	(92.9)	41	(76.4)	(61.7)	(44.8)	38
	Rural	86.3	285	69.8	42.4	30.8	246
<b>Education</b>	None	(*)	6	(*)	(*)	(*)	5
	Primary	86.7	280	69.8	45.7	33.1	243
	Secondary	(90.5)	40	(78.1)	(45.1)	(33.1)	36
<b>Wealth index quintiles</b>	Poorest	78.2	107	70.9	50.3	38.4	84
	Second	96.3	52	80.4	43.3	33.9	50
	Middle	88.9	68	62.8	33.3	23.8	61
	Fourth	89.9	52	(67.7)	(43.5)	(28.0)	47
	Richest	(91.4)	47	(73.4)	(55.0)	(38.0)	43
<b>Total</b>		<b>87.1</b>	<b>326</b>	<b>70.7</b>	<b>45.0</b>	<b>32.7</b>	<b>284</b>
[1] MICS indicator 3.20							
(*) Not shown, based on less than 25 unweighted cases.							
() Based on 25-49 unweighted cases.							

## 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 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 <http://www.childinfo.org/wes.html>.

### Use of Improved Water Sources

The distribution of the population by 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, public tap/standpipe), tube well/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 other purposes, such as hand-washing and cooking.

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

Per cent distribution of household population according to main source of drinking water and percentage of household population using improved drinking water sources, Migori County, 2011																	
	Main source of drinking water																
	Improved sources						Unimproved sources						Total	Percentage using improved sources of drinking water [1]	Number of household members		
	Piped water			Public tap/standpipe	Tubewell/bore-hole	Protected well	Protected spring	Rain-water collection	Unprotected well	Unprotected spring	Surface water	Bottled water				Missing	
Piped into dwelling	Piped into compound, yard or plot	Piped to neighbor	Piped to water kiosk														
<b>Residence</b>																	
Urban	1.3	6.3	4.9	8.5	1.0	12.1	5.8	3.6	11.5	12.6	10.0	19.5	0.6	2.1	100.0	54.1	994
Rural	0.1	0.1	0.0	1	0.4	8.3	6.9	4.2	6.9	13.9	11.4	47.8	0.0	0.0	100.0	26.5	4338
<b>Education of household head</b>																	
None	1.0	1.1	0.2	0.0	0.0	14.8	3.4	2.6	11.7	15.7	6.8	42.7	0.0	0.0	100.0	34.9	699
Primary	0.0	1.2	1.2	1.6	0.5	6.7	7.0	4.2	5.6	13.8	11.5	46.7	0.0	0.0	100.0	27.6	3427
Secondary+	1.1	1.5	0.6	2.7	0.7	12.2	7.5	4.5	11.2	12.3	12.8	30.6	0.5	1.8	100.0	41.3	1204
Missing /DK	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	3
<b>Wealth index quintile</b>																	
Poorest	0.0	0.0	0.0	0.0	0.0	7.9	6.3	1.3	0.7	9.2	11.3	63.3	0.0	0.0	100.0	16.2	1335
Second	0.0	0.0	0.0	0.0	0.0	6.6	2.0	5.6	6.7	17.4	15.9	45.8	0.0	0.0	100.0	20.9	826
Middle	0.0	0.0	0.4	0.0	0.8	7.0	7.6	4.6	9.0	16.8	12.1	41.8	0.0	0.0	100.0	28.6	1108
Fourth	0.0	0.0	2.4	2.6	1.1	8.6	10.7	5.5	7.0	15.1	7.3	39.6	0.0	0.0	100.0	36.8	977
Richest	1.8	6.1	1.9	5.7	0.6	14.6	6.1	4.5	16.6	12.0	9.9	17.7	0.5	2.0	100.0	57.3	1086
<b>Total</b>	<b>0.4</b>	<b>1.2</b>	<b>0.9</b>	<b>1.6</b>	<b>0.5</b>	<b>9.0</b>	<b>6.7</b>	<b>4.1</b>	<b>7.7</b>	<b>13.7</b>	<b>11.2</b>	<b>42.5</b>	<b>0.1</b>	<b>0.4</b>	<b>100.0</b>	<b>31.7</b>	<b>5333</b>

[1] MICS indicator 4.1; MDG indicator 7.8

(\*) Not shown, based on less than 25 unweighted cases.

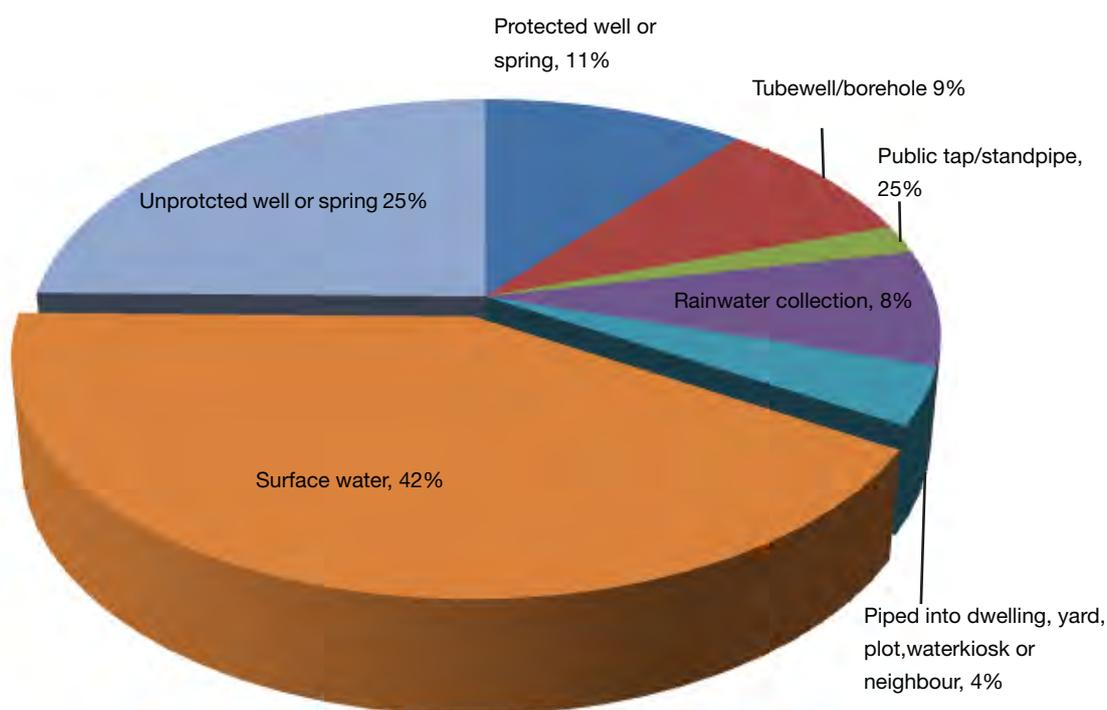
**Note:** Households using bottled water as the main source of drinking water are classified into improved or unimproved drinking water users according to the water source used for other purposes such as cooking and handwashing.

Almost a third (32 per cent) of households use improved sources of drinking water (protected well/springs- 11 per cent, tube well, borehole – 9 per cent, rainwater collection - 8 per cent, piped water- 4 per cent and public tap/stand pipe - 2 per cent). By contrast, more than 2 out of 3 households (68 per cent) rely on unimproved sources of drinking water - surface water, unprotected well/spring - as their main source of drinking water. Of these, surface water (42 per cent) is the main source of drinking water.

Disparities exist in the use of improved sources of drinking water by area of residence. Twice as many households in urban areas use improved sources of drinking water than those in rural areas (54 per cent versus 27 per cent respectively). The dominant source of improved drinking water in both urban and rural regions is tube well/borehole (12 per cent and 8 per cent respectively). Almost equivalent proportion of households in urban areas also collects rain water as their source of drinking water (11 per cent). The dominant unimproved source of drinking water in both urban and rural regions is surface water (20 per cent and 48 per cent respectively).

On the wealth quintiles, those who live in households that fall in the richest wealth quintile are more likely to use improved sources of drinking water than their poorest counterparts (57 per cent compared to 16 per cent).

**Figure WS.1: Percentage distribution of household members by source of drinking water, Kisumu County, 2011**



## Use of Adequate Water Treatment Method

Use of in-house 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, 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, more than half (56 per cent) of Migori County residents are using unimproved drinking water sources use an appropriate water treatment method. The water treatment methods commonly used in these households are adding bleach/chlorine (43 per cent), boiling water (26 per cent) and straining water through a cloth (6 per cent). Urban areas have a higher proportion of households (64 per cent) that use an appropriate water treatment method compared to those in rural areas (55 per cent). On the other hand, little more than 2 out of 5 (41 per cent) households do not use any water treatment methods

The level of education of household head is, however, a critical factor that determines prevalence of use of appropriate water treatment methods in Migori County. The likelihood of households using an appropriate water treatment method increased as the level of education of household head increased - 70 per cent in households where the head has attained secondary education compared to 50 per cent in households where the head has no education.

**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, Migori County, 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 [1]	Number of household members in households using unimproved drinking water sources
	None	Boil	Add bleach / chlorine	Strain through a cloth	Use water filter	Solar disinfection	Let it stand and settle	Other				
<b>Residence</b>												
Urban	39.2	26	45.5	4.3	1.2	0	4.6	0	994	63.5	446	
Rural	41.6	26	42.2	6.3	1.4	0.3	5.4	0.5	4338	54.7	3172	
<b>Education of household head</b>												
None	50.2	23	33	7.7	1.5	0	5.1	0	699	49.6	455	
Primary	43.6	23	41.5	5.6	1.4	0.3	4.4	0.6	3427	52.8	2465	
Secondary+	28.9	36	52	5.9	1.1	0	7.8	0	1204	70.3	698	
Missing /DK	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	3	-	-	
<b>Wealth index quintile</b>												
Poorest	48.7	21	38.2	4.7	0.3	0	4.8	0.7	1335	51.5	1119	
Second	39.8	21	45.5	5.5	2	0	3.9	0.6	826	55.2	654	
Middle	47.3	26	35.8	8.8	2.4	0	6.5	0	1108	50.1	782	
Fourth	33	28	50	3.9	1.1	1.2	3.8	0.7	977	62.6	606	
Richest	33.9	33	47.2	6.6	1.5	0	7	0	1086	67.8	457	
<b>Total</b>	<b>41.1</b>	<b>26</b>	<b>42.8</b>	<b>5.9</b>	<b>1.4</b>	<b>0.2</b>	<b>5.3</b>	<b>0.4</b>	<b>5333</b>	<b>55.8</b>	<b>3618</b>	

[1] MICS indicator 4.2

## Time to source drinking water

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 roundtrip from home to drinking water source. Information on the number of trips made in one day is not collected.

Overall, Table WS.3 shows that 13 per cent of households use improved drinking water sources that are on their premises. The proportion of households that have improved drinking water sources on their premises is higher in urban (37 per cent) compared to rural areas (8 per cent). This proportion also increases as the wealth status of the households improves - 1 per cent in the poorest wealth index to 40 per cent in the richest household index.

As noted earlier, majority of Migori County households rely on unimproved drinking water sources, thus a greater proportion of the household population spend time to go to the unimproved source of drinking water compared to users of improved drinking water sources - 64 per cent compared to 19 per cent respectively. About 14 per cent of the households take less than 30 minutes whilst another 5 per cent take more than 30 minutes to get to the improved water source. In comparison, 64 per cent of households collect water from unimproved sources away from their premises, with 30 per cent taking 30 minutes or more to collect water. As expected, a bigger percentage of households in rural areas (34 per cent) take 30 minutes or more to get to unimproved drinking water sources than their urban counterparts (15 per cent).

In general, the highest proportions of households that spend 30 minutes or more to unimproved drinking water sources are from the poorest wealth quintile.

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

Per cent 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, Migori County, 2011									
	Time to source of drinking water							Total	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	Water on premises	Less than 30 minutes	30 minutes or more	Missing/DK		
<b>Area</b>									
Rural	37.0	14.8	3.4	10.5	16.2	15.3	2.7	100.0	994
Urban	7.6	13.5	5.8	1.0	38.5	33.5	0.1	100.0	4338
<b>Education of household head</b>									
None	21.8	9.9	3.2	1.9	39.9	23.3	0.0	100.0	699
Primary	8.6	13.8	5.7	2.4	35.5	34.0	0.0	100.0	3427
Secondary+	20.9	15.5	5.6	4.4	27.8	23.1	2.7	100.0	1204
Missing/DK	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	3
<b>Wealth index quintiles</b>									
Poorest	0.7	8.7	6.8	0.5	38.5	44.8	0.0	100.0	1335
Second	6.1	11.3	3.5	0.7	43.0	35.4	0.0	100.0	826
Middle	7.8	12.8	8.8	0.8	43.5	25.7	0.5	100.0	1108
Fourth	11.7	24.2	2.1	2.1	32.1	27.8	0.0	100.0	977
Richest	40.2	13.5	4.2	9.7	15.2	14.7	2.5	100.0	1086
<b>Total</b>	<b>13.1</b>	<b>13.8</b>	<b>5.3</b>	<b>2.8</b>	<b>34.3</b>	<b>30.1</b>	<b>0.6</b>	<b>100.0</b>	<b>5333</b>

(\*) Not shown, based on less than 25 unweighted cases.

## Person Collecting Water

Table WS.4 shows that for the majority of households (83 per cent) the source of drinking water is not on the premises, and an adult female is usually the person collecting the water (88 per cent). The proportion of an adult woman being responsible for water collection for use in the household is higher in rural (90 per cent) than urban (76 per cent) areas.

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

<b>Percentage of households without drinking water on premises, and per cent distribution of households without drinking water on premises according to the person usually collecting drinking water used in the household, Migori County, 2011</b>									
	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 15)	Male child (under 15)	Missing/DK	Total	
<b>Residence</b>									
Urban	57.6	272	75.5	19.8	1.7	0.4	2.6	100.0	258
Rural	91.5	856	90.3	4.3	4.1	1.2	0.1	100.0	854
<b>Education of household head</b>									
None	77.6	190	77.0	9.7	8.7	4.5	0.0	100.0	187
Primary	89.6	698	91.0	5.6	2.8	0.6	0.0	100.0	692
Secondary+	69.7	239	84.9	9.6	2.5	0.0	3.1	100.0	232
Missing/DK	(*)	1	(*)	(*)	(*)	(*)	(*)	(*)	1
<b>Wealth index quintile</b>									
Poorest	99.2	273	88.4	3.3	5.7	2.6	0.0	100.0	273
Second	94.1	171	90.4	6.0	3.7	0.0	0.0	100.0	171
Middle	89.9	212	92.3	4.4	2.2	0.5	0.5	100.0	212
Fourth	89.1	212	85.5	10.4	2.9	1.1	0.0	100.0	212
Richest	49.7	260	80.0	14.0	2.7	0.2	3.2	100.0	245
<b>Total</b>	<b>83.4</b>	<b>1128</b>	<b>87.8</b>	<b>6.9</b>	<b>3.7</b>	<b>1.1</b>	<b>0.6</b>	<b>100.0</b>	<b>1113</b>
(*) Not shown, based on less than 25 unweighted cases.									

Overall, adult men collect water in only 7 per cent of cases. Households that fall in the richest quintile have the highest proportion of adult men responsible for water collection (14 per cent). Almost 1 out of 5 (20 per cent) households in urban areas have adult male collect water, compared to 1 out of 25 (4 per cent) households in rural areas.

Female or male children under age 15 engaged in water collection activities in 5 per cent of the households – 4 per cent where female children collect water whilst it is much lower in proportion for male children (1 per cent). The proportion of children engaged in water collection is 5 per cent for those from rural areas, 13 per cent for those households where the head has no education, and about 8 per cent for households from the poorest quintile.

## 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 latrine; ventilated improved pit latrine (VIP), pit latrine with slab, and composting toilet).

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

<b>Per cent distribution of household population according to type of toilet facility used by the household, Migori County, 2011</b>											
	Type of toilet facility used by household									Total	Number of household members
	Improved sanitation facility					Unimproved sanitation facility					
	Flush to piped sewer system	Flush to septic tank	Ventilated Improved Pit latrine (VIP)	Pit latrine with slab	Composting toilet	Pit latrine without slab/	Other	Missing	No facilities or bush or field or ocean		
<b>Area</b>											
Urban	0.8	1.4	12.0	33.2	0.0	51.0	0.0	0.2	1.5	100.0	994
Rural	0.0	0.0	3.3	11.2	1.4	51.8	0.1	0.4	31.8	100.0	4338
<b>Education of household head</b>											
None	0.8	1.1	10.0	10.6	1.3	48.5	0.8	0.2	26.7	100.0	699
Primary	0.1	0.0	2.9	14.5	1.2	50.8	0.0	0.5	30.0	100.0	3427
Secondary+	0.1	0.5	7.6	20.3	0.9	55.7	0.0	0.0	14.9	100.0	1204
Missing/DK	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	3
<b>Wealth index quintile</b>											
Poorest	0.0	0.0	0.0	0.9	0.5	49.3	0.0	0.4	48.9	100.0	1335
Second	0.0	0.0	0.0	5.3	2.4	58.6	0.6	0.8	32.3	100.0	826
Middle	0.0	0.0	2.0	15.1	2.0	54.2	0.0	0.4	26.3	100.0	1108
Fourth	0.0	0.0	4.3	17.0	1.5	62.8	0.0	0.0	14.5	100.0	977
Richest	0.9	1.2	18.2	39.1	0.0	36.6	0.0	0.1	3.7	100.0	1086
<b>Total</b>	<b>0.2</b>	<b>0.3</b>	<b>4.9</b>	<b>15.3</b>	<b>1.2</b>	<b>51.6</b>	<b>0.1</b>	<b>0.3</b>	<b>26.1</b>	<b>100.0</b>	<b>5333</b>
(*) Not shown, based on less than 25 unweighted cases.											

As shown in Table WS.5, 22 per cent of the population in Migori County is living in households using improved sanitation facilities – pit latrine with slab, VIP, flush system and composting toilet ( ). Overall, pit latrines with slabs are the most frequently used improved sanitation facilities (15 per cent). On the other hand, more than three quarters (78 per cent) use unimproved sanitation facilities. In contrast, about a quarter (26 per cent) of households have no sanitation facilities and resort to open defecation in bushes/fields/ocean. As expected, a bigger proportion of those with no sanitation facilities reside in the households that fall in the poorest wealth quintile (49 per cent) or in rural areas (32 per cent).

There is marked variation in the proportion of households that use improved sanitation facilities by area of residence – 47 per cent in urban areas compared to (16 per cent) in rural areas. About 1 per cent of the population living in households that fall in the lowest wealth index have access to pit latrine with slab compared to 39 per cent living in the richest wealth index households. Overall, residents in Migori County to the proportion of the population who use improved sanitation facilities is high for those who reside in urban areas or those who live in households from the richest wealth index quintile.

## Use and sharing of sanitation facilities

Access to safe drinking-water and to basic sanitation is measured by the proportion of population using an improved sanitation facility. MDGs and 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, 22 per cent of the Migori County residents use an improved sanitation facility of which 12 per cent use either public or shared sanitation facilities. A bigger proportion of those who share improved sanitation facilities share among 5 households or less (8 per cent). This is similar for users of unimproved sanitation facilities; residents more frequently share with 5 households or less (23 per cent). Only 4 per cent of rural households use shared improved sanitation facilities with 5 households or less compared to 25 per cent for urban households.

The data also shows that proportion of households that use private or shared improved sanitation facilities by wealth status of the household varies. One in 10 households in Migori County use private improved sanitation facilities. The proportion of those with private facilities increased with increasing wealth index levels– from 1 per cent for those from the poorest households to 23 per cent in the richest households. In general, a bigger percentage of households from the richest quintile have either private or shared improved sanitation facilities (public, shared by 5 households or less, or shared by more than 5 households) compared to their poorer counterparts.

Overall, there is no clear much variation between the proportion of those who use a shared improved sanitation facility by levels of education of household head.

**Table WS.6: Use and sharing of sanitation facilities**

Per cent 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, Migori County, 2011												
	Users of improved sanitation facilities						Users of unimproved sanitation facilities					Number of household members
	Not shared [1]	Public facility	Shared by: 5 households or less	Shared by: More than 5 households	Not shared	Public facility	Shared by: 5 households or less	Shared by: More than 5 households	Missing/DK	Open defecation (no facility, bush field)	Total	
<b>Residence</b>												
Urban	7.2	0.7	24.7	14.7	8.9	3.8	20.4	18.0	0.0	1.5	100.0	994
Rural	10.7	0.9	3.5	0.9	23.7	1.2	23.1	4.2	0.1	31.8	100.0	4338
<b>Education of household head</b>												
None	15.2	0.6	1.2	6.8	19.7	1.5	25.7	2.6	0.0	26.7	100.0	699
Primary	8.1	0.6	7.3	2.7	21.9	2.2	22.0	5.1	0.2	30.0	100.0	3427
Secondary +	12.3	1.6	11.6	3.7	19.0	0.4	22.7	13.6	0.0	14.9	100.0	1204
Missing/DK	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	3
<b>Wealth index quintile</b>												
Poorest	1.4	0.0	0.0	0.0	22.5	0.0	23.4	3.8	0.0	48.9	100.0	1335
Second	5.5	0.3	2.0	0.0	23.4	2.3	29.9	4.4	0.0	32.3	100.0	826
Middle	9.2	0.0	7.5	2.4	25.6	1.1	19.6	8.4	0.0	26.3	100.0	1108
Fourth	11.7	1.9	7.3	1.7	28.4	1.4	23.2	9.2	0.6	14.5	100.0	977
Richest	23.4	2.3	20.9	13.0	5.6	4.2	18.6	8.3	0.0	3.7	100.0	1086
<b>Total</b>	<b>10.0</b>	<b>0.9</b>	<b>7.5</b>	<b>3.5</b>	<b>20.9</b>	<b>1.7</b>	<b>22.6</b>	<b>6.7</b>	<b>0.1</b>	<b>26.1</b>	<b>100.0</b>	<b>5333</b>

[1] MICS indicator 4.3; MDG indicator 7.9

(\*) Not shown, based on less than 25 unweighted cases.

## Disposal of child's faeces

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.

Overall, in Migori County, more than half of the children aged 0-2 years (59 per cent) have their stools disposed safely – 55 per cent in rural areas and 89 per cent in urban areas. A marginal difference in the proportion of children aged 0-2 years from dwellings with improved sanitation have their waste disposed safely compared to those with unimproved sanitation facilities (88 per cent and 82 per cent respectively). For households which have improved sanitation facilities, majority of the children's waste is disposed by rinsing into toilet or latrines (57 per cent). Other methods of disposal include burying (13 per cent), throwing into garbage (solid waste) (12 per cent) and rinsing into a ditch or drain (6 per cent).

On the other hand, only 9 per cent of children who live in dwellings which have no facilities have their excreta disposed safely. As expected, the frequently used disposal method is burying (35 per cent) or leaving it in the open (24 per cent).

The proportion of households where safe disposal of children's waste is practiced increases with household wealth from 44 per cent in the poorest households to 90 per cent in the richest households. About 74 per cent of children whose mothers have at least secondary education have their waste disposed of safely than those whose mothers have primary education (57 per cent).

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

	Place of disposal of child's faeces										Percentage of children whose stools were disposed of safely [1]	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 (solid waste)	Buried	Left in the open	Other	DK	Missing	Total		
<b>Type of sanitation\ facility in dwelling</b>												
Improved	1.3	87.2	1.0	3.7	1.4	0.0	1.2	0.0	4.1	100.0	88.5	84
Unimproved	4.7	77.1	4.4	6.0	2.5	0.9	1.5	0.0	2.8	100.0	81.8	268
Open defecation	0.0	8.5	12.4	24.2	34.7	11.4	5.9	0.4	2.6	100.0	8.5	169
<b>Residence</b>												
Urban	1.9	86.8	0.0	7.3	0.0	0.0	0.5	0.0	3.5	100.0	88.7	62
Rural	2.7	52.5	7.3	12.1	14.5	4.7	3.2	0.1	2.9	100.0	55.2	459
<b>Mother's education</b>												
None	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	19
Primary	1.9	54.7	6.9	12.6	13.6	4.0	3.1	0.1	3.1	100.0	56.6	432
Secondary+	6.0	67.1	3.5	6.1	7.7	4.0	2.7	0.0	2.8	100.0	73.2	70
<b>Wealth index quintile</b>												
Poorest	0.7	43.2	10.0	15.9	15.2	7.1	4.4	0.4	3.2	100.0	43.9	175
Second	5.5	42.8	6.2	16.1	16.1	6.2	3.6	0.0	3.4	100.0	48.3	81
Middle	3.7	56.3	5.0	10.3	17.0	3.1	1.7	0.0	2.9	100.0	60.0	106
Fourth	3.5	70.0	6.6	4.5	9.0	1.0	3.2	0.0	2.1	100.0	73.5	88
Richest	1.6	88.1	0.0	6.1	1.2	0.0	0.0	0.0	3.0	100.0	89.7	73
<b>Total</b>	<b>2.6</b>	<b>56.6</b>	<b>6.4</b>	<b>11.5</b>	<b>12.7</b>	<b>4.1</b>	<b>2.9</b>	<b>0.1</b>	<b>3.0</b>	<b>100.0</b>	<b>59.2</b>	<b>521</b>

[1] MICS indicator 4.4

() Based on 25-49 unweighted cases.

## Drinking water and sanitation ladders

In its 2008 report, 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.

In Migori County, 32 per cent use improved drinking water, and 10 per cent have improved sanitation facilities. Only 1 out of 20 (5 per cent) of household populations have both improved drinking water sources and improved sanitation. The proportion of urban and rural households that have both is comparable (5 and 6 per cent respectively). The proportion of the population who use both improved facilities is highest among those from the wealthiest households (14 per cent).

7 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 using:												
Residence	Improved drinking water [1]			Unimproved drinking water	Total	Improved sanitation [2]	Unimproved sanitation			Total	Improved drinking water sources and improved sanitation	Number of households
	Piped into dwelling, plot or yard	Other improved					Shared improved facilities	Unimproved facilities	Open defecation			
Urban	7.6	46.5		45.9	100.0	7.2	40.1	51.1	1.5	100.0	5.6	994
Rural	0.2	26.3		73.5	100.0	10.7	5.3	52.3	31.8	100.0	5.3	4338
<b>Education of household head</b>												
None	2.1	32.8		65.1	100.0	15.2	8.7	49.4	26.7	100.0	10.9	699
Primary	1.2	26.4		72.4	100.0	8.1	10.6	51.3	30.0	100.0	3.4	3427
Secondary+	2.5	38.8		58.7	100.0	12.3	17.0	55.7	14.9	100.0	7.9	1204
Missing/DK	(*)	(*)		(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	3
<b>Wealth index quintile</b>												
Poorest	0.0	16.2		83.8	100.0	1.4	0.0	49.7	48.9	100.0	0.0	1335
Second	0.0	20.9		79.1	100.0	5.5	2.2	60.0	32.3	100.0	2.3	826
Middle	0.0	28.6		71.4	100.0	9.2	9.9	54.6	26.3	100.0	5.3	1108
Fourth	0.0	36.8		63.2	100.0	11.7	11.0	62.8	14.5	100.0	6.0	977
Richest	7.9	49.4		42.7	100.0	23.4	36.2	36.8	3.7	100.0	13.9	1086
<b>Total</b>	<b>1.6</b>	<b>30.1</b>		<b>68.3</b>	<b>100.0</b>	<b>10.0</b>	<b>11.8</b>	<b>52.1</b>	<b>26.1</b>	<b>100.0</b>	<b>5.4</b>	<b>5333</b>

[1] MICS indicator 4.1; MDG indicator 7.8

[2] MICS indicator 4.3; MDG indicator 7.9

( ) Based on 25-49 unweighted cases.

## 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 handwashing behaviour at these critical times is challenging. A reliable alternative to observations or self-reported behaviour is assessing the likelihood that correct handwashing 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.

In Migori County, only 4 per cent of households had designated handwashing places that were observed – 3 per cent in rural areas and 5 per cent in urban areas. For the rest of the 96 per cent of households where the designated handwashing place is not observed, the handwashing place is either not in the dwelling/plot/yard or the interviewer did not have permission to see (Table WS.9).

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

Percentage of households where place for handwashing was observed and per cent distribution of households by availability of water and soap at place for handwashing, Migori County, 2011												
Area	Percentage of households where place for handwashing was observed	Percentage of households where place for handwashing was not observed			Number of households	Per cent distribution of households where place for handwashing was observed, where:				Total	Number of households where place for handwashing was observed	
		Not in dwelling/plot/yard	No permission to see	Missing		Total	Water and soap are available [1]	Water is available, soap is not available	Water is not available, soap is available			Water and soap are not available
Urban	4.7	95.2	0.1	0.0	272	(*)	(*)	(*)	(*)	(*)	(*)	13
Rural	3.2	96.6	0.0	0.1	856	(74.8)	(20.2)	(3.6)	(1.4)	(100.0)	(*)	28
<b>Education of household head</b>												
None	5.7	93.8	0.0	0.5	190	(*)	(*)	(*)	(*)	(*)	(*)	11
Primary	2.9	97.0	0.0	0.0	698	(*)	(*)	(*)	(*)	(*)	(*)	20
Secondary+	3.9	95.9	0.2	0.0	239	(*)	(*)	(*)	(*)	(*)	(*)	9
Missing/DK	(*)	(*)	(*)	(*)	1	(*)	(*)	(*)	(*)	(*)	(*)	0
<b>Wealth index quintiles</b>												
Poorest	0.4	99.3	0.0	0.3	273	(*)	(*)	(*)	(*)	(*)	(*)	1
Second	3.4	96.6	0.0	0.0	171	(*)	(*)	(*)	(*)	(*)	(*)	6
Middle	6.3	93.7	0.0	0.0	212	(*)	(*)	(*)	(*)	(*)	(*)	13
Fourth	2.4	97.6	0.0	0.0	212	(*)	(*)	(*)	(*)	(*)	(*)	5
Richest	5.9	93.8	0.3	0.0	260	(*)	(*)	(*)	(*)	(*)	(*)	15
<b>Total</b>	<b>3.6</b>	<b>96.3</b>	<b>0.1</b>	<b>0.1</b>	<b>1128</b>	<b>(64.5)</b>	<b>(20.4)</b>	<b>(11.4)</b>	<b>(3.7)</b>	<b>(100.0)</b>	<b>(*)</b>	<b>41</b>

[1] MICS indicator 4.5

(\*) Not shown, based on less than 25 unweighted cases.

() Based on 25-49 unweighted cases.

## Availability of soap

Overall, 79 per cent of the households in Migori County have soap anywhere in the dwelling, though not necessarily at the designated hand washing place – 77 in rural areas versus 85 per cent in urban areas (Table WS.10).

In the households where the place for handwashing was observed, soap was present at the designated handwashing place in only 3 per cent of the households. For the remaining 1 per cent, soap was either shown or it was not present in the household. Of the 96 per cent of households where the handwashing place was not observed, soap was shown in 76 per cent of households, 20 per cent had no soap in the household while in less than 1 per cent of households the respondent was not able or did not want to show soap.

Approximately 90 per cent of households that fall in the richest quintile have soap anywhere in the dwelling compared to 67 per cent of households in the poorest quintile

**Table WS.10: Availability of soap**

Per cent distribution of households by availability of soap in the dwelling, Migori County, 2011									
Area	Place for handwashing observed			Place for handwashing not observed			Percentage of households with soap anywhere in the dwelling [1]	Number of households	
	Soap observed	Soap shown	No soap in household	Soap shown	No soap in household	Not able/Does not want to show soap			Total
Urban	3.3	1.4	0.0	4.7	15.3	0.0	84.7	272	
Rural	2.5	0.3	0.4	3.2	22.0	0.3	77.4	856	
<b>Education of household head</b>									
None	3.1	1.5	1.2	5.7	18.8	0.0	80.0	190	
Primary	2.6	0.2	0.1	2.9	22.4	0.4	77.1	698	
Secondary+	2.8	1.1	0.0	3.9	15.7	0.0	84.3	239	
Missing/DK	(*)	(*)	(*)	(*)	(*)	(*)	(*)	1	
<b>Wealth index quintile</b>									
Poorest	0.2	0.0	0.2	0.4	32.2	0.6	66.9	273	
Second	2.4	1.0	0.0	3.4	20.4	0.0	79.6	171	
Middle	6.3	0.0	0.0	6.3	21.2	0.0	78.8	212	
Fourth	1.6	0.0	0.7	2.4	17.4	0.0	81.9	212	
Richest	3.6	1.9	0.4	5.9	9.6	0.3	89.7	260	
<b>Total</b>	<b>2.7</b>	<b>0.6</b>	<b>0.3</b>	<b>3.6</b>	<b>20.4</b>	<b>0.2</b>	<b>79.1</b>	<b>1128</b>	

[1] MICS indicator 4.6

(\*) Not shown, based on less than 25 unweighted cases.

## VIII. Reproductive Health

### Fertility

In MICS4, Age Specific Fertility Rates (ASFR) and Total Fertility Rates (TFR) are calculated by using information on birth histories of women aged 15-49 years from the sampled households. Birth histories include details of all children ever born alive to a woman, such as child's name, sex, month and year of birth, survival status and if dead, the age at death. Current fertility rates are based on the date of last birth of each woman for the three years preceding the survey. Rates are underestimated by a very small margin due to absence of information on multiple births (twins, triplets etc.) and on women having multiple deliveries during the periods preceding the survey.

ASFRs are calculated by dividing the number of births to women in a specific age group by the number of women years lived during a given period, and is expressed per 1000 women. The total fertility rate (TFR) is calculated by summing the age-specific fertility rates calculated for each of the 5-year age groups of women, from age 15 through to age 49. The TFR denotes the average number of children to which a woman will have given birth by the end of her reproductive years if current fertility rates prevailed

Table RH.1 shows age specific fertility rates and total fertility rate. For the three year period preceding the MICS survey, the total fertility rate in Migori County was 5.6 children per woman. The adolescent birth rate (age-specific fertility rate for women age 15-19) during the same period was 230 births per 1000 women. ASFR was highest in the 20 to 24 age group with 260 births per 1000 women. Generally, fertility seems to decline in all age groups over the last decade before the survey.

**Table RH.1: Current fertility**

Age specific fertility rates (ASFR) and total fertility rate (TFR) for three year periods preceding the survey, Migori County, 2011					
	Age specific fertility rates (ASFR)				
	Number of years preceding the survey				
	0-2	3-5	6-8	9-11	12-14
Age					
15-19	230 [1]	230	245	215	234
20-24	260	362	316	337	297
25-29	247	272	309	277	256
30-34	181	268	301	269	209
35-39	145	205	174	149	208
40-44	55	73	111	0	.
45-49	6	0	.	.	.
<b>Total Fertility Rate</b>	<b>5.6</b>	<b>7.0</b>	<b>7.3</b>	<b>6.2</b>	<b>6.0</b>
[1] MICS indicator 5.1; MDG indicator 5.4					
<b>Note:</b> Age-specific fertility rates are per 1,000 women.					

### Children ever born and children surviving

Table RH.1a presents the distribution of children ever born and surviving for all women by age groups. The mean number of children ever born to all women aged 15-49 years is 3.6 and that of surviving is 3. Women in Migori County have a parity of 7.3 children per woman for the age group 45-49 years which is at the end of their childbearing period.

**Table RH.1a: Children ever born and children surviving**

Mean and total numbers of children ever born and children surviving by age of women, Migori County, 2011					
	Children ever born		Children surviving		Number of women
	Mean	Total	Mean	Total	
<b>Age</b>					
15-19	0.6	109	0.5	103	191
20-24	2.0	382	1.9	346	187
25-29	3.6	746	3.2	663	207
30-34	4.8	591	4.1	503	122
35-39	6.2	684	5.1	562	110
40-44	6.1	421	5.0	347	69
45-49	7.3	485	5.7	378	66
<b>Total</b>	<b>3.6</b>	<b>3418</b>	<b>3.0</b>	<b>2902</b>	<b>952</b>

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.

### Early childbearing

As shown in Table RH.2, 39 per cent of women age 15-19 have already had a birth, 2 per cent are pregnant with their first child, 42 per cent have begun childbearing and 8 per cent have had a live birth before age 15. The proportion of young women who have had a live birth, or those who have begun childbearing and those who have had a live birth before age 15 is highest in rural areas compared to urban areas. About half (50 per cent) of the women aged 20-24 years have had a live birth before age 18.

**Table RH.2: Early childbearing**

Percentage of women age 15-19 years who have had a live birth or who are pregnant with the first child and percentage of women age 15-19 years who have begun childbearing, percentage of women 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, Migori County, 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 [1]	Number of women age 20-24
	Have had a live birth	Are pregnant with first child	Have begun childbearing	Have had a live birth before age 15			
<b>Residence</b>							
Urban	30.2	2.6	32.7	2.2	52	(40.6)	42
Rural	42.2	2.4	44.6	10.1	150	52.1	142
<b>Education</b>							
None	(*)	(*)	(*)	(*)	2	(*)	9
Primary	48.4	1.5	49.8	10.0	152	59.5	134
Secondary +	(9.0)	(5.6)	(14.5)	(0.0)	47	(23.9)	41
<b>Wealth index quintile</b>							
Poorest	(55.3)	(2.0)	(57.3)	(19.5)	48	(54.7)	44
Second	(*)	(*)	(*)	(*)	23	(43.4)	30
Middle	(48.6)	(5.6)	(54.3)	(5.6)	46	(63.4)	40
Fourth	(27.8)	(0.0)	(27.8)	(2.2)	43	(42.6)	30
Richest	(23.0)	(3.2)	(26.2)	(7.5)	42	(39.4)	40
<b>Total</b>	<b>39.1</b>	<b>2.4</b>	<b>41.5</b>	<b>8.1</b>	<b>202</b>	<b>49.5</b>	<b>184</b>

[1] MICS indicator 5.2  
 (\*) Not shown, based on less than 25 unweighted cases.  
 ( ) Based on 25-49 unweighted cases.

### **Trends in early childbearing**

Overall, 1 in 10 (10 per cent) women aged 15-49 years have had a live birth before age 15 while almost half (48 per cent) of women aged 20-49 years have had a live birth before age 18 as shown in Table RH.4. Forty eight per cent of the women aged 20-49 who reside in rural areas have had a live birth before age 18 compared to 43 per cent of their urban counterparts.

**Table RH.3: Trends in early childbearing**

Percentage of women who have had a live birth, by age 15 and 18, by residence and age group, Migori County, 2011												
Age	Urban				Rural				All			
	Percentage of women with a live birth before age 15	Number of women age 15-49 years	Percentage of women with a live birth before age 18	Number of women age 20-49 years	Percentage of women with a live birth before age 15	Number of women age 15-49 years	Percentage of women with a live birth before age 18	Number of women age 20-49 years	Percentage of women with a live birth before age 15	Number of women age 15-49 years	Percentage of women with a live birth before age 18	Number of women age 20-49 years
15-19	2.2	52	.	0	10.1	150	.	0	8.1	202	.	0
20-24	(11.6)	42	(40.6)	42	12.0	142	52.1	142	11.9	184	49.5	184
25-29	(6.8)	37	(39.8)	37	9.2	168	48.8	168	8.8	205	47.1	205
30-34	(0.0)	34	(32.3)	34	6.9	95	38.6	95	5.1	129	36.9	129
35-39	(*)	15	(*)	15	16.0	92	54.5	92	13.7	107	53.5	107
40-44	(*)	11	(*)	11	11.5	54	34.5	54	11.8	65	37.8	65
45-49	(*)	10	(*)	10	7.9	60	49.7	60	17.3	71	55.0	71
<b>Total</b>	<b>8.7</b>	<b>202</b>	<b>43.4</b>	<b>150</b>	<b>10.5</b>	<b>761</b>	<b>47.6</b>	<b>611</b>	<b>10.1</b>	<b>963</b>	<b>46.8</b>	<b>761</b>

(\*) Not shown, based on less than 25 unweighted cases.

() Based on 25-49 unweighted cases

## 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.

Current use of contraception was reported by 43 per cent of women currently married or in union (Table RH.4). Modern methods of contraception are more commonly used (36 per cent) than traditional methods (7 per cent) with injectable contraceptives being the most popular method which was used by at least one in five (21 per cent) married women in Migori County. The next most popular methods are male condoms and lactational amenorrhoea method (LAM) accounting for 6 per cent of married women each. Between one and three per cent of women reported use of female sterilization, implant, intrauterine devices (IUDs), contraceptive pills or periodic abstinence.

Contraceptive prevalence is higher among currently married women in the urban (61 per cent) than rural areas (39 per cent), a pattern that was also observed nationally (KDHS, 2008-09). The proportion of women who use any contraceptive is higher among those with secondary or higher education (54 per cent) than those with primary education (41 per cent). The proportion of women who use any contraceptive is highest (54 per cent) among women aged 30-34 years. Contraceptive prevalence is highest (59 per cent) among women from the richest households. However, there is no clear trend in contraceptive prevalence based on the number of living children a woman has.

While injectable contraceptives are the most commonly used contraceptives across all age groups, the proportion of women using lactational amenorrhoea method is high among those aged 15-19 years than their older counterparts. The proportion of women who use IUDs is higher among those from the richest households.

Non use of contraceptives has important implications on fertility and hence child bearing and consequently population growth. The proportion of married women not using any form of contraceptives in Migori County is 57 per cent. Sixty one per cent of the married rural women are not using any method compared to 39 per cent of the urban women. Similarly, 70 per cent of the women with one living child are not using any method. The poorest households and those with women with primary education registered the highest proportion of non-contraceptive use.

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

Percentage of women age 15-49 years currently married or in union who are using (or whose partner is using) a contraceptive method, Migori County, 2011																			
Per cent of women (currently married or in union) who are using:																			
	Not using any method	Female sterilization	Male sterilization	Pill	IUD	Injectables	Implants	Male condom	Female condom	Dia-phragm/Foam/Jelly	LAM	Periodic abstinence	Withdrawal	Other	Any modern method	Any traditional method	Any method [1]	Number of women currently married or in union	
<b>Residence</b>																			
Urban	39.1	4.0	0.0	0.3	6.6	32.5	4.3	8.1	0.0	0.0	4.9	0.3	0.0	0.0	55.8	5.1	60.9	126	
Rural	61.0	2.4	0.0	2.5	1.3	18.2	2.1	5.0	0.0	0.2	5.7	1.6	0.0	0.0	31.7	7.3	39.0	556	
<b>Age</b>																			
15-19	65.5	0.0	0.0	0.5	0.0	15.2	0.0	2.9	0.0	0.0	14.5	1.4	0.0	0.0	18.6	15.9	34.5	62	
20-24	59.4	0.0	0.0	1.8	5.4	19.3	1.8	4.8	0.0	0.0	6.5	0.9	0.0	0.0	33.1	7.4	40.6	147	
25-29	54.3	0.9	0.0	2.8	1.2	25.0	1.6	5.5	0.0	0.0	7.7	1.0	0.0	0.0	36.9	8.8	45.7	189	
30-34	45.6	2.4	0.0	2.9	2.7	34.1	5.4	3.3	0.0	0.0	2.7	0.9	0.0	0.0	50.8	3.6	54.4	108	
35-39	54.7	8.1	0.0	3.1	0.0	15.6	2.4	12.5	0.0	1.0	0.8	1.9	0.0	0.0	42.6	2.7	45.3	84	
40-44	(60.9)	(12.6)	(0.0)	(0.9)	(1.5)	(6.8)	(7.9)	(8.6)	(0.0)	(0.0)	(0.0)	(0.9)	(0.0)	(0.0)	(38.3)	(0.9)	(39.1)	45	
45-49	(75.6)	(3.4)	(0.0)	(0.0)	(3.9)	(8.7)	(0.0)	(1.9)	(0.0)	(0.0)	(2.9)	(3.7)	(0.0)	(0.0)	(17.8)	(6.6)	(24.4)	47	
<b>Number of living children</b>																			
0	(78.8)	(0.0)	(0.0)	(0.0)	(16.2)	(2.2)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(2.8)	(0.0)	(0.0)	(18.4)	(2.8)	(21.2)	38	
1	69.9	0.0	0.0	0.4	0.0	12.0	1.1	7.7	0.0	0.0	7.9	1.0	0.0	0.0	21.2	8.9	30.1	84	
2	56.0	0.0	0.0	2.8	0.9	28.8	2.0	2.4	0.0	0.0	6.7	0.4	0.0	0.0	36.9	7.1	44.0	113	
3	45.5	2.6	0.0	1.9	0.0	29.5	2.3	8.4	0.0	0.0	8.9	0.9	0.0	0.0	44.7	9.8	54.5	142	
4+	56.4	4.8	0.0	2.7	2.8	18.6	3.5	5.5	0.0	0.3	3.7	1.8	0.0	0.0	38.1	5.4	43.6	305	
<b>Education</b>																			
None	(54.5)	(2.4)	(0.0)	(1.9)	(20.1)	(17.1)	(1.9)	(0.0)	(0.0)	(0.0)	(0.0)	(2.2)	(0.0)	(0.0)	(43.3)	(2.2)	(45.5)	35	
Primary	59.0	2.5	0.0	1.7	1.0	20.7	2.3	5.4	0.0	0.2	6.1	1.1	0.0	0.0	33.8	7.2	41.0	553	
Secondary +	46.1	3.7	0.0	4.9	3.0	23.0	3.9	8.7	0.0	0.0	4.4	2.2	0.0	0.0	47.3	6.7	53.9	94	
<b>Wealth index quintile</b>																			
Poorest	64.3	1.2	0.0	3.6	0.9	16.1	0.6	4.5	0.0	0.0	7.1	1.7	0.0	0.0	26.9	8.8	35.7	161	
Second	55.2	2.3	0.0	2.4	1.7	28.2	3.4	3.1	0.0	0.0	2.8	0.8	0.0	0.0	41.2	3.7	44.8	113	
Middle	63.5	3.3	0.0	1.3	0.0	14.6	1.2	7.5	0.0	0.0	6.5	2.0	0.0	0.0	27.9	8.6	36.5	148	
Fourth	59.9	5.2	0.0	0.8	2.2	12.9	3.1	8.0	0.0	0.0	5.9	2.0	0.0	0.0	32.2	7.9	40.1	115	
Richest	41.4	2.1	0.0	2.1	6.6	32.8	4.8	4.8	0.0	0.6	4.9	0.0	0.0	0.0	53.8	4.9	58.6	146	
<b>Total</b>	<b>57.0</b>	<b>2.7</b>	<b>0.0</b>	<b>2.1</b>	<b>2.3</b>	<b>20.8</b>	<b>2.5</b>	<b>5.6</b>	<b>0.0</b>	<b>0.1</b>	<b>5.6</b>	<b>1.3</b>	<b>0.0</b>	<b>0.0</b>	<b>36.1</b>	<b>6.9</b>	<b>43.0</b>	<b>682</b>	

[1] MICS indicator 5.3; MDG indicator 5.3

( ) Based on 25-49 unweighted cases.

## 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 new-born 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 bacteriuria and proteinuria
- Blood testing to detect syphilis and severe anaemia
- Weight/height measurement (optional)

## Antenatal coverage

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. Coverage of antenatal care (by a doctor, nurse, midwife, clinical officer or community nurse) is relatively high in Migori County with 87 per cent of women receiving antenatal care at least once during the pregnancy. More than half (52 per cent) of mothers received antenatal care from a nurse or midwife. About 5 per cent of women received antenatal care from traditional birth attendants while another 5 per cent did not receive any antenatal care.

**Table RH.6: Antenatal care coverage**

	Person providing antenatal care										Number of women who gave birth in the preceding two years	
	Medical doctor	Nurse/Midwife	Community nurse	Clinical officer	Traditional birth attendant	Community health worker	Relative/Friend	Other	No antenatal care received	Total		Any skilled personnel [1]
<b>Residence</b>												
Urban	(5.4)	(16.7)	(13.1)	(57.7)	(0.0)	(0.0)	(0.0)	(3.9)	(3.2)	(100.0)	(92.9)	41
Rural	12.4	10.0	12.4	51.4	6.2	0.2	0.2	1.7	5.4	100.0	86.3	285
<b>Mother's age at birth</b>												
Less than 20	10.3	14.9	11.5	49.4	4.8	0.0	1.0	1.2	6.9	100.0	86.1	73
20-34	13.0	9.1	13.3	52.3	5.8	0.0	0.0	1.4	5.0	100.0	87.7	225
35-49	(3.4)	(13.6)	(9.1)	(58.9)	(3.7)	(2.3)	(0.0)	(7.8)	(1.2)	(100.0)	(85.0)	28
<b>Education</b>												
None	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	6
Primary	11.0	11.4	13.3	51.0	5.9	0.2	0.2	1.4	5.5	100.0	86.7	280
Secondary +	(12.2)	(8.3)	(8.9)	(61.0)	(2.6)	(0.0)	(0.0)	(6.1)	(0.8)	(100.0)	(90.5)	40
<b>Wealth index quintiles</b>												
Poorest	13.5	4.7	14.1	45.8	9.9	0.0	0.7	1.8	9.5	100.0	78.2	107
Second	13.5	14.6	17.6	50.7	0.0	1.2	0.0	0.8	1.7	100.0	96.3	52
Middle	7.7	7.7	9.3	64.2	7.7	0.0	0.0	0.0	3.4	100.0	88.9	68
Fourth	15.1	21.0	9.1	44.7	3.7	0.0	0.0	1.7	4.6	100.0	89.9	52
Richest	(6.5)	(13.9)	(11.8)	(59.3)	(0.0)	(0.0)	(0.0)	(6.7)	(1.9)	(100.0)	(91.4)	47
<b>Total</b>	<b>11.5</b>	<b>10.8</b>	<b>12.5</b>	<b>52.2</b>	<b>5.4</b>	<b>0.2</b>	<b>0.2</b>	<b>1.9</b>	<b>5.1</b>	<b>100.0</b>	<b>87.1</b>	<b>326</b>

[1] MICS indicator 5.5a; MDG indicator 5.5

(\*) Not shown, based on less than 25 unweighted cases.

() Based on 25-49 unweighted cases

## Number of antenatal care visits

UNICEF and WHO recommend a minimum of at least four antenatal care visits during pregnancy. Table RH.7 shows number of antenatal care visits during the last pregnancy in the two years preceding the survey, regardless of provider by selected characteristics.

Almost nine in ten mothers (88 per cent) received antenatal care more than once whilst half of the mothers (50 per cent) received antenatal care at least four times.

**Table RH.7: Number of antenatal care visits**

Per cent distribution of women who had a live birth during the two years preceding the survey by number of antenatal care visits by any provider, Migori County, 2011								
	Per cent distribution of women who had:					Missing/ DK	Total	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 [1]			
<b>Residence</b>								
Urban	(3.2)	(3.6)	(4.5)	(17.7)	(67.1)	(3.9)	(100.0)	41
Rural	5.4	6.1	15.8	23.3	47.3	2.1	100.0	285
<b>Mother's age at birth</b>								
Less than 20	6.9	8.6	12.5	16.1	54.7	1.2	100.0	73
20-34	5.0	5.6	14.3	24.6	48.4	2.0	100.0	225
35-49	(1.2)	(0.0)	(19.3)	(23.6)	(48.2)	(7.8)	(100.0)	28
<b>Education</b>								
None	(*)	(*)	(*)	(*)	(*)	(*)	(*)	6
Primary	5.5	6.4	14.1	22.6	49.7	1.8	100.0	280
Secondary +	(0.8)	(0.0)	(16.7)	(22.8)	(53.7)	(6.1)	(100.0)	40
<b>Wealth index quintile</b>								
Poorest	9.5	9.3	21.2	27.4	31.6	1.0	100.0	107
Second	1.7	9.1	12.6	24.0	50.0	2.8	100.0	52
Middle	3.4	2.0	17.8	18.2	58.6	0.0	100.0	68
Fourth	4.6	1.9	5.7	21.1	65.0	1.7	100.0	52
Richest	(1.9)	(4.2)	(5.1)	(18.4)	(61.4)	(9.0)	(100.0)	47
<b>Total</b>	<b>5.1</b>	<b>5.8</b>	<b>14.3</b>	<b>22.6</b>	<b>49.8</b>	<b>2.3</b>	<b>100.0</b>	<b>326</b>
[1] MICS indicator 5.5b; MDG indicator 5.5								
(*) Not shown, based on less than 25 unweighted cases.								
() Based on 25-49 unweighted cases								

## Content of antenatal care

The types of services pregnant women received are shown in table RH.8. Among those women who gave birth to a child during the two years preceding the survey, 71 per cent reported that a blood sample had been taken during antenatal care visits, 89 per cent reported that their blood pressure had been checked whilst urine samples were taken in 87 per cent of cases. Seventy per cent of women received all three services (had their blood pressure measured, urine sample taken, and blood sample taken) during antenatal care visits. Generally, the likelihood of receiving all three services seems to increase with increasing household wealth.

**Table RH.8: Content of antenatal care**

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, Migori County, 2011					
	Percentage of pregnant women who had:				Number of women who had a live birth in the preceding two years
	Blood pressure measured	Urine sample taken	Blood sample taken	Blood pressure measured, urine and blood sample taken [1]	
<b>Residence</b>					
Urban	(89.3)	(92.9)	(81.7)	(81.7)	41
Rural	88.9	86.7	69.6	67.9	285
<b>Mother's age at birth</b>					
Less than 20	84.0	82.6	64.3	60.0	73
20-34	91.5	89.3	75.6	74.9	225
35-49	(81.6)	(85.0)	(53.1)	(53.1)	28
<b>Education</b>					
None	(*)	(*)	(*)	(*)	6
Primary	89.2	87.1	70.8	69.5	280
Secondary +	(87.9)	(90.5)	(76.3)	(73.7)	40
<b>Wealth index quintile</b>					
Poorest	80.7	80.7	53.1	51.5	107
Second	96.3	88.4	72.3	68.3	52
Middle	94.6	92.6	83.4	82.1	68
Fourth	91.8	90.0	78.8	78.8	52
Richest	(88.3)	(91.4)	(84.6)	(84.6)	47
<b>Total</b>	<b>89.0</b>	<b>87.4</b>	<b>71.1</b>	<b>69.7</b>	<b>326</b>
[1] MICS indicator 5.6					
(*) Not shown, based on less than 25 unweighted cases.					
() Based on 25-49 unweighted cases					

## 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, clinical officer or community nurse.

About 42 per cent of births occurring in the two years preceding the MICS survey were delivered by skilled personnel (Table RH.9). Although it is expected that ALL deliveries in health facilities are assisted by a skilled attendant, 10 per cent of births were NOT assisted by a skilled attendant in public health facilities. The highest proportion of births (34 per cent) was delivered with the assistance of a nurse or midwife in the two years preceding the MICS survey. Doctors, community nurses and clinical officers assisted with the delivery of 4, 5 and 6 per cent of births respectively. Traditional birth attendants still play a substantial role in Migori County and assisted with the delivery of 33 per cent of births. One in ten (10 per cent) births was assisted by a relative or friend while another 6 per cent of births had no attendant.

**Table RH.9: Assistance during delivery**

Per cent 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, Migori County, 2011													
	Person assisting at delivery										Number of women who had a live birth in preceding two years		
	Medical doctor	Nurse/Midwife	Community nurse	Clinical Officer	Traditional birth attendant	Community health worker	Relative/Friend	Other/Missing	No attendant	Total		Delivery assisted by any skilled attendant [1]	Per cent delivered by C-section [2]
<b>Residence</b>													
Urban	(3.6)	(3.7)	(61.5)	(0.0)	(8.6)	(13.1)	(3.5)	(4.9)	(1.0)	(100.0)	(68.9)	(3.6)	41
Rural	3.8	4.7	30.1	0.7	10.1	4.4	36.9	3.1	6.2	100.0	38.6	2.6	285
<b>Mother's age at birth</b>													
Less than 20	3.4	4.2	28.2	0.0	11.2	4.4	43.9	1.2	3.5	100.0	35.7	2.7	73
20-34	4.2	4.6	35.0	0.9	9.7	6.6	29.2	3.5	6.3	100.0	43.9	3.0	225
35-49	(1.1)	(5.1)	(42.2)	(0.0)	(8.4)	(0.0)	(31.20)	(7.8)	(4.3)	(100.0)	(48.4)	(1.1)	28
<b>Place of delivery</b>													
Public sector health facility	6.7	9.8	73.2	0.0	0.9	9.4	0.0	0.0	0.0	100.0	89.7	5.2	114
Private sector health facility	(15.0)	(0.0)	(60.7)	(0.0)	(0.0)	(23.3)	(0.0)	(1.1)	(0.0)	(100.0)	(75.6)	(9.8)	31
Home	0.0	2.3	4.7	1.2	17.0	0.0	63.1	1.4	10.4	100.0	6.9	0.0	167
Other	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	9
<b>Education</b>													
None	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	6
Primary	2.9	4.7	33.6	0.4	10.1	4.7	35.1	3.0	5.5	100.0	41.3	2.1	280
Secondary +	(10.1)	(4.2)	(42.2)	(2.4)	(2.4)	(11.8)	(15.4)	(6.1)	(5.5)	(100.0)	(56.4)	(7.3)	40
<b>Wealth index quintiles</b>													
Poorest	1.5	3.3	19.1	1.0	15.3	5.7	41.7	4.7	7.7	100.0	23.9	1.4	107
Second	3.6	6.4	38.0	0.0	9.0	4.2	33.4	2.6	2.7	100.0	48.0	5.0	52
Middle	7.1	2.3	32.7	0.0	8.4	3.9	37.5	0.0	8.3	100.0	42.0	1.3	68
Fourth	1.4	7.2	40.0	1.8	6.4	4.8	33.0	1.7	3.6	100.0	48.6	6.1	52
Richest	(6.9)	(6.0)	(59.5)	(0.0)	(4.7)	(9.8)	(3.8)	(7.6)	(1.8)	(100.0)	(72.4)	(1.7)	47
<b>Total</b>	<b>3.8</b>	<b>4.6</b>	<b>34.1</b>	<b>0.6</b>	<b>9.9</b>	<b>5.5</b>	<b>32.7</b>	<b>3.3</b>	<b>5.5</b>	<b>100.0</b>	<b>42.4</b>	<b>2.7</b>	<b>326</b>

[1] MICS indicator 5.7; MDG indicator 5.2

[2] MICS indicator 5.9

(\*) Not shown, based on less than 25 unweighted cases.

() 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 per cent distribution of women aged 15-49 years 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.

Forty-five per cent of births were delivered in a health facility. More than a third (35 per cent) of deliveries occurred in public sector facilities whilst 10 per cent occurred in private sector facilities. Interestingly, half (51 per cent) of births occurred at home.

**Table RH.10: Place of delivery**

Per cent distribution of women age 15-49 who had a live birth in two years preceding the survey by place of delivery, Migori County, 2011								
	Place of delivery					Total	Delivered in health facility [1]	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>Residence</b>								
Urban	(56.9)	(22.4)	(16.9)	(0.0)	(3.9)	(100.0)	(79.3)	41
Rural	31.9	7.7	56.0	3.0	1.4	100.0	39.6	285
<b>Mother's age at birth</b>								
Less than 20	33.4	5.6	59.9	0.0	1.2	100.0	38.9	73
20-34	35.3	11.7	48.5	3.4	1.1	100.0	47.0	225
35-49	(37.2)	(2.5)	(49.2)	(3.3)	(7.8)	(100.0)	(39.7)	28
<b>Number of antenatal care visits</b>								
None	(*)	(*)	(*)	(*)	(*)	(*)	(*)	17
1-3 visits	27.9	6.5	63.9	1.6	0.0	100.0	34.5	140
4+ visits	44.1	13.6	39.3	3.0	0.0	100.0	57.6	162
<b>Education</b>								
None	(*)	(*)	(*)	(*)	(*)	(*)	(*)	6
Primary	35.0	7.6	53.5	2.7	1.1	100.0	42.7	280
Secondary +	(39.8)	(24.4)	(27.5)	(2.3)	(6.1)	(100.0)	(64.2)	40
<b>Wealth index quintiles</b>								
Poorest	22.3	2.8	70.1	3.8	1.0	100.0	25.1	107
Second	31.4	14.3	49.5	4.0	0.8	100.0	45.7	52
Middle	36.4	6.9	53.1	3.6	0.0	100.0	43.3	68
Fourth	41.0	12.4	44.8	0.0	1.7	100.0	53.5	52
Richest	(59.4)	(20.3)	(13.6)	(0.0)	(6.7)	(100.0)	(79.8)	47
<b>Total</b>	<b>35.0</b>	<b>9.6</b>	<b>51.1</b>	<b>2.6</b>	<b>1.7</b>	<b>100.0</b>	<b>44.6</b>	<b>326</b>
[1] MICS indicator 5.8								
(*) Not shown, based on less than 25 unweighted cases.								
() Based on 25-49 unweighted cases.								

## IX. Child Development

### Early Childhood Education and Learning

Attendance to pre-school education in an organized learning or child education program is important for the readiness of children to school. 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 a major determinant of the child's development during this period. In this context, adult activities with children, presence of books at home, for the child, and the conditions of care are important indicators of quality of child care. A World Fit for Children goal is that "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 and development was collected in the Migori County Multiple Indicator 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.

Table CD.1 shows the percentage of children age 36-59 months currently attending early childhood education disaggregated by selected background characteristics. About 40 per cent of children aged 36-59 months are attending pre-school (Table CD.1).

**Table CD.1: Early childhood education**

Percentage of children age 36-59 months who are attending an organized early childhood education programme, Migori County, 2011		
	Percentage of children age 36-59 months currently attending early childhood education [1]	Number of children age 36-59 months
<b>Sex</b>		
Male	38.5	197
Female	42.0	211
<b>Residence</b>		
Urban	53.8	63
Rural	37.8	344
<b>Age of child</b>		
36-47 months	30.4	227
48-59 months	52.7	181
<b>Mother's education</b>		
None	(51.9)	38
Primary	35.7	327
Secondary +	(64.8)	43
<b>Wealth index quintile</b>		
Poorest	28.6	112
Second	33.6	72
Middle	38.0	90
Fourth	44.3	63
Richest	65.3	71
<b>Total</b>	<b>40.3</b>	<b>408</b>
[1] MICS indicator 6.7 ( ) Based on 25-49 unweighted cases. * Not shown, based on less than 25 unweighted cases.		

Pre-school attendance varies across urban and rural areas - the figure is as high as 54 per cent in urban areas, compared to 39 per cent in rural areas. There are marginal gender differentials in pre-school attendance. Attendance among boys is at 42 per cent compared to 39 per cent among girls.

There are some observed differences in the proportion of children attending early childhood education by household wealth index. For instance, about 65 per cent of children from the richest households attend pre-school, while the figure drops to 29 per cent for those from the poorest households. As expected, results show that the proportions of children attending pre-school at ages 36-47 months is lower than for those aged 48-59 months at 30 and 53 per cent, respectively.

Findings on adult participation in childhood development are presented in Table CD.2. In Migori County, for almost 33 per cent of under-five children, there was an adult household member who engaged in more than four activities that promote learning and school readiness with them during the 3 days preceding the survey (Table CD.2). The table also indicates that the father's involvement in such activities was somewhat considerable. Father's involvement with children in one or more activities is 54 per cent.

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

<b>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, Migori County, 2011</b>						
	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 [1]	With whom the father engaged in one or more activities [2]	Any adult household member engaged with the child	The father engaged with the child		
<b>Sex</b>						
Male	30.8	52.0	2.4	1.2	23.0	197
Female	34.8	55.9	2.4	1.4	23.3	211
<b>Residence</b>						
Urban	35.8	44.7	2.1	1.1	35.5	63
Rural	32.3	55.7	2.4	1.3	20.9	344
<b>Age</b>						
36-47 months	35.3	55.5	2.5	1.4	22.6	227
48-59 months	29.8	52.2	2.3	1.2	23.9	181
<b>Mother's education</b>						
None	(15.9)	(30.2)	(1.2)	(.7)	(69.9)	38
Primary	35.3	55.4	2.5	1.4	17.7	327
Secondary+	(29.1)	(64.5)	(2.8)	(1.1)	(23.1)	43
<b>Father's education</b>						
None	*	*	*	*	*	15
Primary	36.2	68.6	2.5	1.7	0.0	233
Secondary+	39.6	65.2	2.7	1.6	0.0	65
Father not in household	21.2	12.7	2.1	0.3	100.0	94
<b>Wealth index quintiles</b>						
Poorest	29.8	44.6	2.3	1.1	26.4	112
Second	26.8	62.6	2.3	1.4	14.6	72
Middle	34.7	60.7	2.5	1.4	23.2	90
Fourth	34.1	56.1	2.6	1.4	23.9	63
Richest	40.3	50.0	2.4	1.3	25.9	71
<b>Total</b>	<b>32.9</b>	<b>54.0</b>	<b>2.4</b>	<b>1.3</b>	<b>23.2</b>	<b>408</b>
[1] MICS indicator 6.1						
[2] MICS Indicator 6.2						
() Based on 25-49 unweighted cases.						
* Not shown, based on less than 25 unweighted cases.						

Only 23 per cent of children live in a household without their fathers. The corresponding figures for male and female children are comparable at 23 per cent, while among children aged 36-47 months, 23 per cent live in households without their fathers.

Father's involvement in one or more children activities ranges from 52 per cent to 56 per cent for male and females children respectively. Similarly, father involvement in children activities varies across urban and rural areas. Nearly 56 per cent of fathers in rural areas in Migori were involved in at least one activity with children compared to 45 per cent for those from urban areas. There is no clear trend in the variation in the proportion of fathers who were involved in at least one child activity. The proportion ranges from 45 per cent among those from the poorest households to 63 per cent among the second poorest households, while the figure for the richest households is 50 per cent.

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 and IQ scores. The mother/caretaker of all children under 5 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 Migori County, only 5 per cent of children age 0-59 months are living in households where at least 3 children's books are present (Table CD.3). The proportion of households where children have 10 or more books in the household is less than one per cent. The proportion of urban households reporting 3 or more children's books is more than 5 times the proportion reported for rural households, i.e. 16 per cent versus 3 per cent. Similarly, and as expected, wealthier households report having 3 or more children's books those poorer households. For example, less than 1 per cent of the poorest households have 3 or more children's books compared to 20 per cent among the richest households.

**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, Migori County, 2011							
	Household has for the child:		Child plays with:			Two or more types of playthings [2]	Number of children under age 5
	3 or more children's books [1]	10 or more children's books	Homemade toys	Toys from a shop/ manufactured toys	Household objects/ objects found outside		
<b>Sex</b>							
Male	4.7	0.5	71.4	45.0	74.0	70.0	440
Female	5.0	0.4	66.5	41.1	71.2	65.9	490
<b>Residence</b>							
Urban	16.9	0.9	74.6	67.9	74.3	79.0	126
Rural	3.0	0.4	67.9	39.1	72.2	66.1	804
<b>Age</b>							
0-23 months	0.4	0.0	49.0	30.7	52.7	47.7	322
24-59 months	7.2	0.7	79.3	49.5	83.0	78.5	608
<b>Mother's education</b>							
None	24.1	0.0	70.5	52.4	84.2	74.3	57
Primary	2.9	0.3	68.6	40.5	71.8	67.1	759
Secondary+	8.5	1.7	69.3	54.6	71.7	69.4	114
<b>Wealth index quintiles</b>							
Poorest	0.7	0.0	59.5	21.7	67.1	57.4	286
Second	1.5	0.0	71.9	39.9	76.6	69.5	152
Middle	4.4	0.0	72.9	50.5	72.4	70.8	199
Fourth	2.3	0.0	73.0	51.3	78.4	72.2	151
Richest	20.0	2.8	74.0	69.3	72.9	78.3	143
<b>Total</b>	<b>4.9</b>	<b>0.4</b>	<b>68.8</b>	<b>42.9</b>	<b>72.5</b>	<b>67.8</b>	<b>930</b>
[1] MICS indicator 6.3							
[2] MICS indicator 6.4							

Table CD.3 also shows that 68 per cent of children aged 0-59 months had 2 or more playthings to play with in their homes. The 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 43 per cent of children play with toys that come from a store; while the percentage for homemade toys is 69 per cent.

The proportion of children who have 2 or more playthings to play with is 70 per cent among male children and 66 per cent among female children. Large urban-rural differentials in the proportion of children who have 2 or more playthings are observed (79 per cent in urban versus 66 per cent in rural areas). Small differences are observed in terms of mother's education – 69 per cent of children whose mothers have at least secondary education level have 2 or more playthings, while the proportion increases to 74 per cent for children whose mothers have no education. There are some differences by socioeconomic status of the households with 57 per cent among the poorest households and 78 per cent for the richest households.

Leaving children alone or in the presence 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 34 per cent of children aged 0-59 months were left in the care of other children younger than 10 years of age, while 68 per cent were left alone during the week preceding the interview. Combining the two care indicators, findings show that 72 per cent of children were left with inadequate care during the week before the survey, either by being left alone or in the care of another child. No marked differences are observed by the sex of the child but a difference of about 10 per cent is observed between rural and urban areas – 74 per cent in rural and 64 per cent in urban areas. On the other hand, inadequate care was more prevalent among children whose mothers have at least secondary education (76 per cent), as opposed to children whose mothers have no education (55 per cent). Children aged 24-59 months were left with inadequate care more (75 per cent) than those who were aged 0-23 months (67 per cent). The proportion of Children left with inadequate care is lower among those from the richest households.

**Table CD.4: Inadequate care**

<b>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, Migori County, 2011</b>				
	Percentage of children under age 5			Number 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 [1]	
<b>Sex</b>				
Male	68.4	35.5	73.2	440
Female	67.2	32.6	71.3	490
<b>Residence</b>				
Urban	59.8	29.1	64.0	126
Rural	69.0	34.7	73.5	804
<b>Age</b>				
0-23 months	64.2	19.3	66.7	322
24-59 months	69.7	41.7	75.1	608
<b>Mother's education</b>				
None	48.9	29.7	54.5	57
Primary	69.2	33.7	73.0	759
Secondary+	67.5	38.3	75.8	114
<b>Wealth index quintiles</b>				
Poorest	64.4	26.8	69.2	286
Second	64.1	34.4	68.7	152
Middle	80.9	45.9	83.7	199
Fourth	74.4	39.1	79.2	151
Richest	53.3	25.9	58.7	143
<b>Total</b>	<b>67.8</b>	<b>34.0</b>	<b>72.2</b>	<b>930</b>

[1] MICS indicator 6.5

## 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 Migori County.

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.
- In the social-emotional domain, children are considered to be developmentally on track if two of the following is 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 the learning 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 for ECD in Migori are presented in Table CD.5.

In Migori County, 22 per cent of children aged 36-59 months are developmentally on track. ECDI is comparable among boys (21 per cent) than girls (23 per cent). As expected, ECDI is much higher in older children versus the younger ones (27 per cent among 48-59 months old compared to 18 per cent among 36-47 months old), since children acquire more skills with increasing age. Higher ECDI scores are higher among children attending pre-school (42 per cent) compared to 8 per cent for those who are not attending preschool. Children living in the poorest households have lower ECDI (16 per cent) compared to children living in the richest households (29 per cent). The analysis of four domains of child development shows that 84 per cent of children are on track in the physical domain, but much less on social-emotional (36 per cent), literacy-numeracy (31 per cent) and in learning (35 per cent) domains. In both literacy-numeracy and learning domains, higher scores are associated with children living in urban areas, children attending preschool and older children. Marginal differences are observed in both physical and social-emotional domains among boys and girls, while the social-emotional domain is highest in children from the richest households. Moreover, higher scores in the physical domain are evident in children attending preschool, while marginal differences are observed for the social-emotional domain across levels of preschool attendance.

**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, Migori County, 2011						
	Percentage of children age 36-59 months who are developmentally on track for indicated domains				Early child development index score [1]	Number of children age 36-59 months
	Literacy-numeracy	Physical	Social-Emotional	Learning		
<b>Sex</b>						
Male	27.5	85.4	38.0	36.5	20.8	197
Female	34.0	81.6	33.4	34.4	22.6	211
<b>Residence</b>						
Urban	32.2	78.7	32.8	40.3	23.0	63
Rural	30.6	84.4	36.2	34.5	21.5	344
<b>Age</b>						
36-47 months	22.3	84.1	38.6	35.2	17.6	227
48-59 months	41.7	82.6	31.9	35.8	26.9	181
<b>Preschool attendance</b>						
Attending preschool	59.2	89.7	34.4	42.8	42.0	164
Not attending preschool	11.8	79.3	36.4	30.5	8.0	243
<b>Mother's education</b>						
None	(32.4)	(91.4)	(40.0)	(45.3)	(35.2)	38
Primary	27.8	81.6	36.0	31.5	17.3	327
Secondary	(52.8)	(90.4)	(28.7)	(56.3)	(43.0)	43
<b>Wealth index quintiles</b>						
Poorest	24.0	83.0	34.9	20.9	16.0	112
Second	25.3	81.1	38.5	29.3	13.2	72
Middle	32.6	85.9	32.3	55.2	26.0	90
Fourth	41.4	84.5	29.9	39.8	26.9	63
Richest	36.0	82.5	43.2	35.5	29.3	71
<b>Total</b>	<b>30.9</b>	<b>83.5</b>	<b>35.6</b>	<b>35.4</b>	<b>21.7</b>	<b>408</b>

[1] MICS indicator 6.6  
 ( ) Based on 25-49 unweighted cases.  
 MICS indicator 6.6, Early child development index is calculated as the percentage of children who are developmentally on track in at least three of the four component domains (literacy-numeracy, physical, social-emotional, and learning)

## X. Literacy and Education

### 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 MICS, since only a women's questionnaire was administered, the results are based only on females age 15-24. Literacy was assessed on the ability of women to read a short simple statement or on school attendance.

Table ED.1 shows percentage of women age 15 to 24 years who are literate in Migori County. The data shows that 83 per cent of the young women in Migori County are literate and that literacy status varies greatly by place of residence, age, education level and household wealth index level. About 78 per cent of women who have attained primary school level of education were able to read the statement shown to them compared to all women who have at least secondary education. Literacy level is high among young women in the urban (91 per cent) compared to the rural (80 per cent) areas. The results further indicate women aged 15-19 (84 per cent) are almost comparable literacy to those aged 20-24 (81 per cent). Similarly, 92 per cent of young women from the richest households are literate compared to 64 per cent among those from the poorest households.

**Table ED.1: Literacy among young women**

Percentage of women age 15-24 years who are literate, Migori County, 2011			
	Percentage literate [1]	Percentage not known	Number of men age 15-24 years
<b>Residence</b>			
Urban	91.1	2.4	94
Rural	79.9	0.3	292
<b>Education</b>			
None	*	*	12
Primary	77.7	1.0	285
Secondary+	100.0	0.0	88
<b>Age</b>			
15-19	83.7	1.1	202
20-24	81.4	0.4	184
<b>Wealth index quintile</b>			
Poorest	63.6	0.9	92
Second	85.9	0.0	53
Middle	87.9	0.0	86
Fourth	87.8	0.0	73
Richest	91.7	2.7	82
<b>Total</b>	<b>82.6</b>	<b>0.8</b>	<b>385</b>
[1] MICS indicator 7.1; MDG indicator 2.3			
() Based on 25-49 unweighted cases.			
* Not shown, based on less than 25 unweighted cases.			

### School Readiness

Pre-school education attendance in an organised learning or child education programme is important for the readiness of children to start formal schooling. Table ED.2 shows the proportion of children in the first grade of primary school who attended pre-school the previous year. Overall, 82 per cent of children who are currently attending the first grade of primary school attended pre-school the previous year in Migori County. The results indicate that 84 per cent of female children and 81 per cent of male children attending the first grade of primary school attended pre-school the previous years.

**Table ED.2: School readiness**

Percentage of children attending first grade of primary school who attended pre-school the previous year, Migori County, 2011			
		Percentage of children attending first grade who attended preschool in previous year [1]	Number of children attending first grade of primary school
<b>Sex</b>	Male	80.5	118
	Female	84.1	107
<b>Area</b>	Urban	(93.3)	41
	Rural	79.8	184
<b>Mother's education</b>	None	*	22
	Primary	83.2	166
	Secondary+	(85.4)	32
<b>Wealth index quintiles</b>	Poorest	82.5	61
	Second	(82.3)	35
	Middle	77.0	52
	Fourth	(86.7)	32
	Richest	(84.7)	44
<b>Total</b>		<b>82.2</b>	<b>225</b>
[1] MICS indicator 7.2			
() Based on 25-49 unweighted cases.			
(*) Not shown, 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

Table ED.3 presents the results of children of primary school entry age 6 attending grade 1 (net intake rate) of primary school in Migori Country. About 28 per cent are attending the first grade of primary school. More females (33 per cent) than males (23 per cent) enter grade 1 at the primary school entry age. Similarly, more urban children (46 per cent) of age 6 than their rural counterparts (24 per cent) enter grade 1 of primary school.

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

Percentage of children of primary school entry age entering grade 1 (net intake rate), Nyanza Province, Kenya, 2011a			
		Percentage of children of primary school entry age entering grade 1 [1]	Number of children of primary school entry age
<b>Sex</b>	Male	22.7	88
	Female	33.2	94
<b>Area</b>	Rural	24	149
	Urban	46.1	34
<b>Mother's education</b>	None	31.1	21
	Primary	22.8	136
	Secondary +	53.8	26
<b>Wealth index quintiles</b>	Poorest	19.2	53
	Second	22.6	20
	Middle	33.3	38
	Fourth	14.1	32
	Richest	49.4	39
<b>Total</b>		<b>28.1</b>	<b>183</b>
[1] MICS indicator 7.3			
() Based on 25-49 unweighted cases.			
* Not shown, based on less than 25 unweighted cases.			

Table ED.4 provides the percentage of children of primary school age 6 to 11 years who are attending primary or secondary school<sup>8</sup>. Majority of children of primary school age are attending school (72 per cent). However, 28 per cent of the children are out of school when at their age, they are supposed to be learning. The results show that 82 per cent of children of primary school age in urban areas attend school, while the figure is 70 per cent for those from the rural (areas). As expected, primary school attendance somewhat increases with increasing levels of education of the mother and household wealth index. For example, 65 per cent of the primary school age children from the poorest household are currently attending primary school compared to 81 per cent from the richest households. Similarly, for children whose mothers had no education at all the proportion of children who attended primary school is 77 per cent compared to 81 per cent for those whose mothers had at least secondary education.

8 Ratios presented in this table are “adjusted” since they include not only primary school attendance, but also secondary school attendance in the numerator.

**Table ED.4: Primary school attendance**

Percentage of children of primary school age attending primary or secondary school (adjusted net attendance ratio), Migori County, 2011							
		Male		Female		Total	
		Net attendance ratio (adjusted) [1]	Number of children	Net attendance ratio (adjusted) [1]	Number of children	Net attendance ratio (adjusted) [1]	Number of children
<b>Area</b>	Urban	82.3	82	79.9	85	81.1	167
	Rural	68.3	430	72.3	448	70.3	879
<b>Age</b>	6	26.9	88	33.2	94	30.2	183
	7	51.5	103	52.9	96	52.2	199
	8	72.8	85	85.2	100	79.5	186
	9	88.0	86	86.7	79	87.4	164
	10	96.9	94	90.9	87	94.0	182
	11	100.0	56	100.0	77	100.0	133
<b>Mother's education</b>	None	(80.7)	48	74.0	63	76.9	110
	Primary	68.5	405	71.5	404	70.0	809
	Secondary +	76.0	59	84.8	67	80.7	127
<b>Wealth index quintiles</b>	Poorest	61.9	137	67.0	149	64.6	286
	Second	74.9	84	72.0	72	73.6	156
	Middle	61.8	98	79.8	119	71.6	218
	Fourth	76.9	96	69.3	93	73.2	190
	Richest	81.4	97	80.7	99	81.0	197
<b>Total</b>		<b>70.5</b>	<b>512</b>	<b>73.5</b>	<b>534</b>	<b>72.0</b>	<b>1046</b>

[1] MICS indicator 7.4; MDG indicator 2.1

Table ED.5<sup>9</sup> shows the secondary school net attendance ratio unlike in primary school where 72 per cent of the children are attending school only 12 per cent of the children of secondary school age are attending secondary school. The remaining 88 per cent of children of secondary school age are either out of school (21 per cent) or attending primary school (79 per cent). Attendance of secondary school is higher in urban areas and generally rises with increasing educational level of the mother, age of the child and household social economic status. For children whose mothers have no education at all, the proportion of children who are attending secondary school is 5 per cent compared to 24 per cent for those whose mothers have at least secondary education. About 24 per cent of children who reside in households in the highest wealth quintile attend secondary school, while the proportion drops to 6 per cent in households in the lowest wealth quintile. Girls have a higher net attendance ratio (16 per cent) compared to boys (8 per cent).

9 Ratios presented in this table are “adjusted” since they include not only secondary school attendance, but also attendance to higher levels in the numerator.

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

<b>Percentage of children of secondary school age attending secondary school or higher (adjusted net attendance ratio) and percentage of children attending primary school, Migori County, 2011</b>									
	Male			Female			Total		
	Net attend- ance ratio (adjusted) [1]	Per cent attending primary school	Number of chil- dren	Net attend- ance ratio (adjusted) [1]	Per cent attending primary school	Number of chil- dren	Net attend- ance ratio (adjusted) [1]	Per cent attending primary school	Number of chil- dren
<b>Residence</b>									
Urban	(6.7)	(88.8)	47	34.1	45.7	82	24.1	61.4	129
Rural	8.3	85.7	364	10.7	77.6	289	9.3	82.1	652
<b>Age at beginning of school year</b>									
12	0.0	97.6	84	1.8	96.6	67	.8	97.2	151
13	3.5	96.5	82	0.0	95.0	72	1.9	95.8	154
14	0.9	95.0	66	9.6	87.3	71	5.4	91.0	137
15	10.4	85.4	61	(19.1)	(67.8)	44	14.1	78.0	105
16	21.6	70.0	60	31.6	49.7	58	26.5	60.1	118
17	18.2	61.3	57	40.4	14.2	60	29.6	37.2	116
<b>Mother's education</b>									
None	7.0	88.3	57	(1.7)	(93.2)	40	4.8	90.3	97
Primary	6.5	89.1	267	9.8	82.6	224	8.0	86.1	491
Secondary+	(8.9)	(86.1)	41	(38.3)	(51.8)	46	24.4	67.9	87
Mother not in household	(18.2)	(65.4)	46	30.7	25.1	60	25.3	42.5	106
<b>Wealth index quintile</b>									
Poorest	8.1	87.5	100	3.7	76.3	78	6.2	82.6	179
Second	4.7	87.5	71	10.2	75.2	53	7.0	82.2	124
Middle	5.6	87.0	88	3.3	82.1	74	4.5	84.7	162
Fourth	10.4	85.9	81	24.2	66.6	75	17.0	76.6	156
Richest	12.1	81.7	70	33.2	56.6	90	23.9	67.6	160
<b>Total</b>	<b>8.1</b>	<b>86.1</b>	<b>411</b>	<b>15.9</b>	<b>70.5</b>	<b>371</b>	<b>11.8</b>	<b>78.7</b>	<b>781</b>
[1] MICS indicator 7.5									

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, the majority of them (89 per cent) will eventually reach grade eight. Notice that this number includes children that repeat grades and that eventually move up to reach last grade. Progression between different grades shows high progression levels (over 99 per cent) in most grades. Children living in the urban areas have higher progression rates compared to children living in the rural areas the data shows that of children who entered first grade, females (93 per cent) are more likely than males (85 per cent) to reach grade 8. The proportion of children who reach grade eight is likely to be determined by place of residence of the child, mother's education level and household wealth level. The results show that 97 per cent of children living in the urban areas reach grade eight compared to 87 per cent who live in the rural areas. About 88 per cent of children born to mothers with no education reach grade eight compared to 94 per cent of children born to mothers with at least secondary education. About 93 per cent of children born in the richest households reach grade eight compared to 84 per cent of those born in poorest households.

**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), Nyanza Province, Kenya, 2011									
		Per cent attending grade 1 last year who are in grade 2 this year	Per cent attending grade 2 last year who are attending grade 3 this year	Per cent attending grade 3 last year who are attending grade 4 this year	Per cent attending grade 4 last year who are attending grade 5 this year	Per cent attending grade 5 last year who are attending grade 6 this year	Per cent attending grade 6 last year who are attending grade 7 this year	Per cent attending grade 7 last year who are attending grade 8 this year	Per cent who reach grade 8 of those who enter grade 1 [1]
<b>Sex</b>	Male	98.6	100.0	100.0	98.2	98.8	97.1	91.8	85.3
	Female	100.0	100.0	100.0	100.0	100.0	96.7	96.2	93.0
<b>County</b>	MIGORI	99.4	100.0	100.0	99.1	99.4	96.9	93.5	88.7
<b>Area</b>	Rural	100.0	100.0	100.0	99.0	99.2	96.5	92.3	87.4
	Urban	96.5	100.0	100.0	100.0	100.0	100.0	100.0	96.5
<b>Mother's education</b>	None	100.0	100.0	100.0	97.9	100.0	100.0	89.6	87.8
	Primary	99.2	100.0	100.0	100.0	100.0	97.5	97.9	94.7
	Secondary +	100.0	100.0	100.0	94.4	100.0	100.0	100.0	94.4
	Mother not in household	.	.	100.0	100.0	91.7	100.0	82.4	.
<b>Wealth index quintiles</b>	Poorest	100.0	100.0	100.0	100.0	96.5	92.8	93.4	83.6
	Second	100.0	100.0	100.0	97.4	100.0	100.0	94.4	92.0
	Middle	100.0	100.0	100.0	98.4	100.0	97.7	89.5	86.0
	Fourth	100.0	100.0	100.0	100.0	100.0	96.3	94.5	91.0
	Richest	96.4	100.0	100.0	100.0	100.0	100.0	100.0	96.0
<b>Total</b>		<b>99.4</b>	<b>100.0</b>	<b>100.0</b>	<b>99.1</b>	<b>99.4</b>	<b>96.9</b>	<b>93.5</b>	<b>88.7</b>

[1] MICS indicator 7.6; MDG indicator 2.2

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. The primary school completion rate and transition rate to secondary education are presented in Table ED.7. The results for Migori County indicate that, the primary school completion rate is 70 per cent, out of whom only about a half (52 per cent) transit to secondary schools. School completion rate and transition level are likely to be determined by gender and mother's education. For instance, females have a slightly lower primary school completion rate (58 per cent) than males (80 per cent).

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

Primary school completion rates and transition rate to secondary school, Migori Nyanza Province, Kenya, 2011					
		Primary school completion rate [1]	Number of children of primary school completion age	Transition rate to secondary school [2]	Number of children who were in the last grade of primary school the previous year
<b>Sex</b>	Male	79.7	82	46.9	44
	Female	57.9	72	57.5	40
<b>Area</b>	Rural	70.3	126	48.1	62
	Urban	65.8	28	62.8	22
<b>Mother's education</b>	None	56.1	16	56.2	3
	Primary	51.0	108	64.1	19
	Secondary +	36.6	30	45.7	8
	Mother not in household	.	0	52.7	14
<b>Wealth index quintiles</b>	Poorest	65.6	26	55.5	15
	Second	58.5	32	45.4	11
	Middle	81.3	28	35.8	17
	Fourth	80.7	29	83.8	16
	Richest	64.5	39	42.6	25
<b>Total</b>		<b>69.5</b>	<b>154</b>	<b>52.0</b>	<b>84</b>
[1] MICS indicator 7.7					
[2] MICS indicator 7.8					

The ratios of girls to boys attending primary and secondary education are shown 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 ED.7 shows that gender parity for primary school is 1.02. This indicates that there is no marked difference in primary school attendance between girls and boys. However, the GPI rises to 1.95 for secondary education. Gender Parity Index for primary school is likely to be determined by the child's residence and mother's education level. For instance, the GPI for primary school in rural areas is 1.03 compared to 0.95 in urban areas. Moreover, the GPI for primary school is 1.04 among children of mothers with at least secondary education compared to 0.92 among children of mothers with no education. Similarly, the GPI for secondary school is strongly associated with residence and mother's education. For instance, the GPI for secondary school in rural areas is 1.35 compared to 3.19 in urban areas. Moreover, the GPI for secondary school for children with mothers who have no education is 0.23 while it is 3.73 for children born to mothers with at least secondary education.

**Table ED.8: Education gender parity**

Ratio of adjusted net attendance ratios of girls to boys, in primary and secondary school, Migori Nyanza Province, Kenya, 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 [1]	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 [2]
<b>Area</b>	Rural	77.5	75.3	1.03	16.5	12.2	1.35
	Urban	81.8	86.5	0.95	45.4	14.2	3.19
<b>Mother's education</b>	None	79.4	85.9	0.92	2.9	12.4	0.23
	Primary	76.8	75.1	1.02	17.1	9.9	1.73
	Secondary +	85.6	82.0	1.04	64.2	17.2	3.73
	Mother not in household	.	.	.	28.5	18.2	1.57
<b>Wealth index quintiles</b>	Poorest	71.9	70.0	1.03	5.6	12.9	0.43
	Second	77.1	81.1	0.95	16.6	5.9	2.79
	Middle	83.9	71.5	1.17	5.6	9.7	0.58
	Fourth	76.0	80.6	0.94	38.1	14.1	2.69
	Richest	83.0	85.2	0.97	47.9	19.5	2.46
<b>Total</b>		<b>78.2</b>	<b>77.0</b>	<b>1.02</b>	<b>24.2</b>	<b>12.4</b>	<b>1.95</b>
[1] MICS indicator 7.9; MDG indicator 3.1							
[2] MICS indicator 7.10; MDG indicator 3.1							

The primary schools adjusted NAR for girls and boys are 78 per cent and 77 per cent respectively. The disadvantage of rural areas is particularly pronounced on primary school attendance. However, for secondary schools adjusted NAR, the disadvantage of girls, poorest households and rural areas is particularly evident in Migori County. For example, girls have adjusted secondary schools NAR of 24 per cent compared to 12 per cent for boys.

## **XI. Child Protection**

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### **Birth Registration**

The International Convention on the Rights of the Child states that every child has the right to a name and a nationality and the right to protection from being deprived of his or her identity. Birth registration is a fundamental means of securing these rights for children. The World Fit for Children states the goal to develop systems to ensure the registration of every child at or shortly after birth, and fulfil his or her right to acquire a name and a nationality, in accordance with national laws and relevant international instruments. The indicator is the percentage of children under 5 years of age whose birth is registered.

Details on birth registration by selected characteristics in Migori County are presented in Table CP.1. The results show that Migori County registered over half (52 per cent) of births of the population of children under five years. There are minor variations in birth registration across gender - female children at 51 per cent versus 55 per cent for males. The place of residence of the child and level of mother's education significantly influence the level of birth registration. About 64 per cent of children under 5 living in urban areas are registered compared to 51 per cent of those in rural areas. Children whose mothers have attained secondary education or higher are more likely to have their births registered compared to those whose mothers have no education (65 per cent compared to 42 per cent).

Though over half the children under 5 are registered, one out of four do not have a birth certificate (26 per cent). Birth certificates were observed among only 11 per cent of children under 5. Not all children who are registered may have a birth certificate because some certificates may have been lost or never issued. Ten per cent of children whose births are not registered have mothers/caretakers who know how to register births.

**Table CP.1: Birth registration**

Percentage of children under age 5 by whether birth is registered and percentage of children not registered whose mothers/caretakers know how to register birth, Migori County, 2011								
		Children under age 5 whose birth is registered with civil authorities				Number of children	Children under age 5 whose birth is not registered	
		Has birth certificate		No birth certificate	Total registered [1]		Per cent of children whose mother/caretaker knows how to register birth	Number of children without birth registration
		Seen	Not seen					
<b>Sex</b>	Male	11.1	16.1	27.3	54.5	440	10.4	200
	Female	11.5	15.0	24.1	50.5	490	9.4	242
<b>Area</b>	Urban	7.3	22.8	33.8	63.9	126	(0.0)	45
	Rural	11.9	14.4	24.3	50.6	804	11.0	397
<b>Age</b>	0-11	8.3	9.8	25.6	43.7	170	13.2	96
	12-23	13.0	12.3	32.9	58.2	152	7.6	64
	24-35	11.2	18.6	28.1	57.8	200	9.7	85
	36-47	10.0	16.7	23.3	50.0	227	9.2	114
	48-59	14.5	18.6	19.7	52.9	181	8.8	85
<b>Mother's education</b>	None	11.2	17.0	13.6	41.8	57	(1.9)	33
	Primary	11.2	15.3	24.9	51.4	759	10.8	369
	Secondary+	12.0	16.1	36.6	64.6	114	(7.7)	40
<b>Wealth index quintiles</b>	Poorest	9.9	12.9	28.9	51.6	286	15.1	138
	Second	13.0	13.3	22.1	48.3	152	16.2	79
	Middle	10.4	15.7	20.3	46.4	199	4.8	106
	Fourth	14.7	17.1	21.6	53.4	151	2.6	70
	Richest	10.0	21.2	34.4	65.6	143	(6.5)	49
<b>Total</b>		<b>11.3</b>	<b>15.5</b>	<b>25.6</b>	<b>52.4</b>	<b>930</b>	<b>9.9</b>	<b>443</b>

[1] MICS indicator 8.1  
 \* Not shown, based on less than 25 unweighted cases.  
 ( ) Based on 25-49 unweighted cases.

## Child Labour

Article 32 of the Convention on the Rights of the Child states: “State 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:

- 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. As such, the estimate provided here is a minimum of the prevalence of child labour since some children may be involved in hazardous labour activities for a number of hours that could be less than the numbers specified in the criteria explained above. Table CP.2 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.

In Migori County, almost half (49 per cent) of children aged 5-14 years are engaged in child labour. There is an overwhelming difference in the proportion of children engaged in child labour activities between the two age groups - 64 per cent of children aged 5-11 years compared to 5 per cent of those aged 12-14 years.

The overall proportion of children involved in child labour also varies by the area of residence, child's gender and household wealth status. About 50 per cent of children who reside in the rural areas were involved in child labour compared to 43 per cent among those from the urban areas. The differentials in the prevalence of child labour by gender of child shows that 51 per cent of girls engage in child labour activities versus 46 per cent among boys. The data also shows that almost half (49 per cent) of those involved in child labour attend school compared to 30 per cent of those who do not attend school. Children whose mothers have at least secondary education are least likely to be involved in child labour compared to children whose mothers are less educated. Similarly, children from the richest households are least likely to be engaged in child labour compared to children from poorest households.

Child labour in this county mainly consists of economic work. About 63 per cent of children aged 5-11 years were involved in at least one hour of economic work while 5 per cent of children aged 12-14 years were involved in 14 hours or more of economic work in the week preceding the survey. The economic activity in which children were engaged in mainly involved working for family business (62 per cent of children aged 5-11 years and 83 per cent of children aged 12-14 years). Less than 1 per cent of children in each age group were involved in household chores for 28 hours or more in the week preceding the survey.

**Table CP.2: 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, Migori County, 2011																			
	Percentage of children age 5-11 involved in						Percentage of children age 12-14 involved in						Total child labour [1]						
	Economic activity			Household chores for 28 hours or more	Number of children age 5-11	Household chores for 28 hours or more	Economic activity			Household chores for 28 hours or more	Number of children age 12-14								
	Working outside household	Working for family business	Economic activity less than 14 hours				Working outside household	Working for family business	Economic activity less than 14 hours										
	Paid work	Unpaid work				Paid work	Unpaid work												
<b>Sex</b>																			
Male	1.0	4.9	58.2	61.4	57.8	0.0	61.4	642	3.2	1.4	80.8	77.4	4.5	78.1	0.6	5.1	232	46.4	874
Female	0.7	2.2	64.9	65.4	62.0	0.1	65.5	666	2.3	0.9	85.6	79.8	5.7	85.8	0.0	5.7	209	51.2	875
<b>Residence</b>																			
Urban	0.0	7.9	47.2	54.8	57.8	0.0	54.8	215	0.0	0.5	73.6	69.7	3.9	86.3	0.0	3.9	64	43.1	280
Rural	1.0	2.6	64.4	65.2	60.4	0.1	65.2	1092	3.2	1.3	84.7	80.1	5.3	81.0	0.4	5.7	378	49.9	1470
<b>School attendance</b>																			
Yes	0.9	3.6	62.7	64.6	60.5	0.0	64.6	1264	1.9	1.0	83.0	78.7	4.6	81.4	0.3	4.9	433	49.4	1697
No	(0.0)	(1.3)	(29.3)	(30.6)	(42.7)	(0.0)	(30.6)	44	*	*	*	*	*	*	*	*	8	30.5	52
<b>Mother's education</b>																			
None	0.9	3.7	63.6	63.6	53.5	0.0	63.6	136	0.9	0.9	79.0	75.1	3.9	76.2	0.0	3.9	63	44.8	199
Primary	1.0	3.9	62.3	64.6	62.0	0.1	64.7	1017	3.4	1.4	85.1	80.3	5.7	83.1	0.4	6.1	326	50.4	1344
Secondary+	0.0	0.7	55.0	55.7	52.2	0.0	55.7	154	0.7	0.0	74.9	72.0	3.0	80.1	0.0	3.0	53	42.3	207
<b>Wealth index quintile</b>																			
Poorest	2.1	4.4	63.8	64.5	54.7	0.2	64.6	358	2.9	0.9	85.8	80.2	5.6	80.3	0.0	5.6	101	51.6	459
Second	0.5	4.5	65.9	67.4	57.9	0.0	67.4	193	3.5	1.3	84.2	81.6	2.6	82.2	0.0	2.6	76	49.1	269
Middle	0.7	1.5	64.4	65.3	66.9	0.0	65.3	271	2.5	2.2	88.0	85.0	4.6	79.3	1.5	6.0	92	50.3	363
Fourth	0.0	0.4	68.3	68.3	70.7	0.0	68.3	242	1.0	1.5	89.1	81.0	8.1	86.5	0.0	8.1	84	52.7	326
Richest	0.3	6.7	45.3	52.0	50.8	0.0	52.0	243	4.0	0.0	68.0	65.1	4.4	81.2	0.0	4.4	88	39.3	332
<b>Total</b>	<b>0.8</b>	<b>3.5</b>	<b>61.6</b>	<b>63.4</b>	<b>59.9</b>	<b>0.0</b>	<b>63.5</b>	<b>1308</b>	<b>2.8</b>	<b>1.2</b>	<b>83.0</b>	<b>78.6</b>	<b>5.1</b>	<b>81.8</b>	<b>0.3</b>	<b>5.4</b>	<b>442</b>	<b>48.8</b>	<b>1749</b>

[1] MICS indicator 8.2

\* Not shown, based on less than 25 unweighted cases.

() Based on 25-49 unweighted cases.

## Child labour and school attendance

Table CP.3 presents the percentage of children age 5-14 years classified as student labourers or as labourer students by selected characteristics. Student labourers are children attending school but at the same time also involved in child labour activities at the time of the surveys. Among the 97 per cent of the children 5-14 years of age attending school, almost half (49 per cent) are also involved in child labour activities (student labourers). On the other hand, out of the 49 per cent of child labourers, the majority (98 per cent) of them are reportedly attending school. This may indicate that being involved in child labour does not necessarily affect school attendance.

Disparities in the proportion of student labourers exist by gender and residence. About 52 per cent of girls are student labourers compared to 47 per cent among boys. Similarly, 51 per cent of those from rural areas are student labourers compared to 43 per cent among those from urban areas. Similarly, younger children (5-11 years) are 13 times more likely (65 per cent) to be student labourers than their older (12-14 years) counterparts (5 per cent). Children in households that fall in the richest quintile are least likely to be student labourers compared to those from poorest households.

**Table CP.3: Child labour and school attendance**

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, Migori County, 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 [1]	Number of children age 5-14 years involved in child labour	Percentage of children attending school who are involved in child labour [2]	Number of children age 5-14 years attending school
<b>Sex</b>	Male	46.4	96.7	874	97.4	406	46.7	845
	Female	51.2	97.3	875	98.8	449	52.0	852
<b>Residence</b>	Urban	43.1	99.3	280	99.7	121	43.3	278
	Rural	49.9	96.6	1470	97.9	734	50.6	1419
<b>Age</b>	5-11 years	63.5	96.6	1308	98.4	830	64.6	1264
	12-14 years	5.4	98.1	442	*	24	4.9	433
<b>Mother's education</b>	None	44.8	96.7	199	98.0	89	45.5	192
	Primary	50.4	96.8	1344	97.9	678	51.0	1300
	Secondary +	42.3	98.9	207	100.0	87	42.7	205
<b>Wealth index quintiles</b>	Poorest	51.6	94.4	459	96.4	237	52.7	434
	Second	49.1	97.9	269	98.4	132	49.3	264
	Middle	50.3	97.6	363	98.8	182	50.9	354
	Fourth	52.7	97.2	326	99.0	172	53.7	317
	Richest	39.3	99.0	332	99.0	130	39.4	328
<b>Total</b>		<b>48.8</b>	<b>97.0</b>	<b>1749</b>	<b>98.1</b>	<b>854</b>	<b>49.4</b>	<b>1697</b>
[1] MICS indicator 8.3								
[2] MICS indicator 8.4								
* Not shown, based on less than 25 unweighted cases.								

## 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 Migori County MICS survey, mothers/caretakers of children age 2-14 years were asked a series of questions on the different ways parents use to discipline their children when they misbehave.

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 minor physical punishment or severe physical punishment; and 2) the number of parents/caretakers of children 2-14 years of age that believe that in order to raise their children properly, they need to physically punish them.

**Table CP.4: Child discipline**

Percentage of children age 2-14 years according to method of disciplining the child, Migori County, 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		Any violent discipline method [1]			
			Any	Severe				
<b>Sex</b>								
Male	6.2	50.8	87.7	29.3	90.5	1146	78.2	412
Female	6.3	50.7	89.1	27.0	91.2	1217	79.6	434
<b>Residence</b>								
Rural	6.3	50.7	87.9	26.0	90.4	1992	79.3	699
Urban	6.1	51.1	91.0	39.6	93.6	370	77.3	147
<b>Age</b>								
2-4 years	6.1	46.4	91.3	27.3	91.6	615	82.4	244
5-9 years	5.1	50.5	88.9	29.1	91.7	1049	79.3	345
10-14 years	8.2	55.0	85.1	27.3	89.0	699	75.2	257
<b>Education of household head</b>								
None	7.1	54.7	84.4	15.9	90.3	273	71.1	109
Primary	6.7	50.0	87.6	30.0	89.7	1567	80.7	553
Secondary +	4.5	51.1	92.8	28.9	94.7	522	78.3	185
<b>Respondent's education</b>								
None	7.7	49.2	81.7	20.3	87.9	180	76.8	82
Primary	6.4	52.9	89.2	31.0	91.2	1745	81.1	603
Secondary +	5.0	43.0	88.0	19.8	90.7	438	71.7	160
<b>Wealth index quintile</b>								
Poorest	3.6	52.1	91.1	18.2	92.5	633	78.4	227
Second	5.6	56.7	87.7	23.5	90.8	373	80.3	134
Middle	8.8	51.5	85.0	36.1	89.4	492	80.3	166
Fourth	6.2	44.0	89.3	36.7	90.7	433	81.5	157
Richest	7.9	49.6	88.1	29.0	90.5	432	74.7	163
<b>Total</b>	<b>6.3</b>	<b>50.8</b>	<b>88.4</b>	<b>28.1</b>	<b>90.9</b>	<b>2362</b>	<b>78.9</b>	<b>846</b>

[1] MICS indicator 8.5

In Migori County, about 91 per cent of children age 2-14 years are subjected to at least one form of violent discipline method by their mothers/caretakers or other household members. The results show that 6.3 per cent of the children age 2 -14 were reported receiving non – violent discipline while 51 per cent experienced psychological aggression. More importantly, more than 1 in 3 (28 per cent) of the 2-14 year olds were subjected to severe physical punishment. On the other hand, 79 per cent of mothers/caretakers believed that children should be physically punished, while 88 per cent of children are reported to experience any form of physical violence. Similar proportions of male and female children have been subjected to violent discipline of any form (91 per cent). More children aged 2-14 years experienced any violent discipline in the urban areas compared to the rural areas i.e. 94 per cent and 90 per cent respectively.

Psychological aggression increased with the child age from 46 per cent in the 2-4 years old to 55 per cent in the 10 – 14 years. Children in households where the head of the household or the respondent have at least secondary education are more likely to experience any form of violent discipline compared to their counterparts in households where the head of the household or the respondent have primary education in Migori County.

## Early Marriage and Polygyny

Marriage before the age of 18 is a reality for many young girls. According to UNICEF's worldwide estimates, over 64 million women age 20-24 were married/in union 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 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.

The Convention on the Elimination of all Forms of Discrimination against Women mentions the right to protection from child marriage in article 16, which states: "The betrothal and the marriage of a child shall have no legal effect, and all necessary action, including legislation, shall be taken to specify a minimum age for marriage..." While marriage is not considered directly in the Convention on the Rights of the Child, child marriage is linked to other rights - such as the right to express their views freely, the right to protection from all forms of abuse, and the right to be protected from harmful traditional practices - and is frequently addressed by the Committee on the Rights of the Child. Other international agreements related to child marriage are the Convention on Consent to Marriage, Minimum Age for Marriage and Registration of Marriages and the African Charter on the Rights and Welfare of the Child and the Protocol to the African Charter on Human and People's Rights on the Rights of Women in Africa. Child marriage was also identified by the Pan-African Forum against the Sexual Exploitation of Children as a type of commercial sexual exploitation of children.

Young married girls are a unique, though often invisible, group. They are required to perform heavy amounts of domestic work, and are under pressure to demonstrate fertility, and be responsible for raising children while still children themselves. Married girls and child mothers face constrained decision-making and reduced life choices. Boys are also affected by child marriage but the issue impacts girls in far larger numbers and with more intensity. Cohabitation - when a couple lives together as if married - raises the same human rights concerns as marriage. Where a girl lives with a man and takes on the role of caregiver for him, the assumption is often that she has become an adult woman, even if she has not yet reached the age of 18. Additional concerns due to the informality of the relationship - for example, inheritance, citizenship and social recognition - might make girls in informal unions vulnerable in different ways than those who are in formally recognized marriages.

Research suggests that many factors interact to place a child at risk of marriage. Poverty, protection of girls, family honour and the provision of stability during unstable social periods are considered as significant factors in determining a girl's risk of becoming married while still a child. Women who married at younger ages were more likely to believe that it is sometimes acceptable for a husband to beat his wife and were more likely to experience domestic violence themselves. The age gap between partners is thought to contribute to these abusive power dynamics and to increase the risk of untimely widowhood.

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. Parents seek to marry off their girls to protect their honour, and men often seek younger women as wives as a means to avoid choosing a wife who might already be infected. The demand for this young wife to reproduce and the power imbalance resulting from the age differential leads to very low condom use among such couples.

The percentage of women married at various ages and that of women in a polygynous union are provided in Table CP.5. Table CP.5 shows that 17 per cent of women aged 15-49 years in Migori County are married before their 15th birthday, whereas 57 per cent of women aged 20-49 years are married before age 18. About 31 per cent of adolescent girls aged 15-19 years are presently married/in union. Differentials in the proportion marrying at early ages by area of residence and educational levels are observed. For example, about 19 per cent of women from rural areas aged 15-49 years were married before age 15 whilst the figure is 11 per cent for those from the urban areas. Moreover, 36 per cent of women aged 15-49 years with no education are married before the age of 15 compared to 6 per cent among those educated to secondary level or higher.

**Table CP.5: 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 or in union, and the percentage of women currently married or in union who are in a polygynous marriage or union, Nyanza Province, Kenya, 2011a									
	Percent- age married before age 15 [1]	Number of women age 15-49 years	Percent- age mar- ried before age 15	Percent- age married before age 18 [2]	Num- ber of women age 20- 49 years	Percentage of women 15-19 years currently married/in union [3]	Number of women age 15-19 years	Percent- age of women age 15-49 years in po- lygynous marriage/ union [4]	Number of women age 15-49 years currently married/in union
<b>County</b>									
<b>MIGORI</b>	<b>17.0</b>	<b>963</b>	<b>19.3</b>	<b>56.6</b>	<b>761</b>	<b>30.6</b>	<b>202</b>	<b>29.0</b>	<b>682</b>
<b>Residence</b>									
Rural	18.5	761	20.5	59.4	611	32.9	150	33.3	556
Urban	11.2	202	14.3	45.5	150	24.0	52	9.9	126
<b>Age</b>									
15-19	8.3	202	.	.	0	30.6	202	11.0	62
20-24	15.5	184	15.5	50.7	184	.	0	19.5	147
25-29	16.9	205	16.9	59.6	205	.	0	28.0	189
30-34	14.8	129	14.8	46.7	129	.	0	34.7	108
35-39	24.0	107	24.0	61.5	107	.	0	40.2	84
40-44	21.5	65	21.5	58.6	65	.	0	35.2	45
45-49	34.8	71	34.8	72.5	71	.	0	46.8	47
<b>Education</b>									
None	35.9	55	35.3	48.5	53	100.0	2	15.2	35
Primary	18.2	731	20.3	63.4	579	38.3	152	31.0	553
Secondary +	5.9	176	8.1	29.3	129	2.3	47	22.2	94
<b>Wealth index quintile</b>									
Poorest	19.9	228	20.4	57.2	180	41.9	48	30.3	161
Second	16.5	151	19.2	56.6	128	23.6	23	36.1	113
Middle	21.3	197	24.7	68.8	151	31.3	46	33.9	148
Fourth	11.9	177	15.0	55.1	134	21.5	43	31.6	115
Richest	14.2	210	16.6	46.3	168	30.1	42	14.9	146
<b>Total</b>	<b>17.0</b>	<b>963</b>	<b>19.3</b>	<b>56.6</b>	<b>761</b>	<b>30.6</b>	<b>202</b>	<b>29.0</b>	<b>682</b>
[1] MICS indicator 8.6 [2] MICS indicator 8.7 [3] MICS indicator 8.8 [4] MICS indicator 8.9 * Not shown, based on less than 25 unweighted cases.									

### Trends in early marriage

Table CP.6 presents the proportion of women who were first married or entered into a marital union before age 15 and 18 by residence and age groups. Examining the percentages of the women who were married before age 15 and 18 by different age groups gives the trends in early marriage over time.

Overall, in Migori County, 17 per cent of women aged 15-49 years are married before the age of 15 whilst 57 per cent of women aged 20-49 years are married before the age of 18.

The results show that only 8 per cent of women aged 15-19 years are reportedly married before age 15 compared to 35 per cent among 45-49 years old. A similar trend is observed in the proportion of women married before age 18 years where 51 per cent of women aged 20-49 years are married before their 18th birthday compared to 73 per cent of women age 45-49 years.

### Spousal age difference

Another component is the spousal age difference with an indicator being the percentage of married/in union women with a difference of 10 or more years younger than their current spouse. Table CP.7 presents the results of the age difference between husbands and wives.

In Migori County, the biggest proportion (49 per cent) of women aged 15-19 years is currently married /in union with a husband/partner who is 0-4 years older, while 30 per cent of husbands/partners are 5-9 years older. Similarly, 18 per cent of husbands/partners are 10 or more years older than the wives. Amongst women aged 20-24 years, the highest proportion (41 per cent) has husbands/partners who are 5-9 years older than them while 22 per cent are married to husbands/partners who are 10 years or older.

**Table CP.6: Trends in early marriage**

Percentage of women who were first married or entered into a marital union before age 15 and 18, by residence and age groups, Nyanza Province, Kenya, 2011a													
		Rural				Urban				All			
		Percent- age of women married before age 15	Num- ber of women age 15-49	Percent- age of women married before age 18	Num- ber of women age 20-49	Per- cent- age of women married before age 15	Num- ber of women age 15-49	Per- cent- age of women married before age 18	Num- ber of women age 20-49	Percent- age of women married before age 15	Num- ber of women age 15-49	Percent- age of women married before age 18	Num- ber of women age 20-49
Age	15-19	10.4	150	.	0	2.2	52	(*)	(*)	(*)	(*)	(*)	0
	20-24	17.8	142	57.1	142	7.8	42	29	42	15.5	184	50.7	184
	25-29	19.1	168	59.4	168	6.8	37	60.5	37	16.9	205	59.6	205
	30-34	18.2	95	55.4	95	5.2	34	22	34	14.8	129	46.7	129
	35-39	26.3	92	62	92	10.6	15	58.2	15	24	107	61.5	107
	40-44	17.1	54	55.5	54	42.8	11	73.1	11	21.5	65	58.6	65
	45-49	28.4	60	70.2	60	71.8	10	85.9	10	34.8	71	72.5	71
Total		<b>18.5</b>	<b>761</b>	<b>59.4</b>	<b>611</b>	<b>11.2</b>	<b>202</b>	<b>45.5</b>	<b>150</b>	<b>17</b>	<b>963</b>	<b>56.6</b>	<b>761</b>

(\*) Not shown, based on less than 25 unweighted cases.

**Table CP.7: Spousal age difference**

Per cent distribution of women currently married/in union age 15-19 and 20-24 years according to the age difference with their husband or partner, Nyanza Province, Kenya, 2011													
	Percentage of currently married/in union women age 15-19 years whose husband or partner is:				Percentage of currently married/in union women age 20-24 years whose husband or partner is:				Number of women age 15-19 years currently married/in union	Number of women age 20-24 years currently married/in union			
	0-4 years older	5-9 years older	10+ years older [1]	Husband/partner's age unknown	Total	Younger	0-4 years older	5-9 years older		10+ years older [2]	Husband / partner's age unknown	Total	
<b>County</b>	MIGORI	2.1	48.5	30.4	17.8	1.3	62	0.5	37.2	40.8	21.5	100.0	147
<b>Area</b>	Rural	(2.6)	(47.1)	(26.4)	(22.3)	(1.6)	49	0.6	34.7	40.4	24.3	100.0	118
	Urban	(*)	(*)	(*)	(*)	(*)	12	(0.0)	(47.4)	(42.4)	(10.3)	(100.0)	29
<b>Age</b>	15-19	2.1	48.5	30.4	17.8	1.3	62	(*)	(*)	(*)	(*)	(*)	0
<b>Education</b>	20-24	(*)	(*)	(*)	(*)	(*)	0	.5	37.2	40.8	21.5	100.0	147
	None	(*)	(*)	(*)	(*)	(*)	2	(*)	(*)	(*)	(*)	(*)	8
<b>Wealth index quintiles</b>	Primary	2.2	49.3	30.1	17.1	1.4	58	.6	31.1	42.8	25.6	100.0	117
	Secondary +	(*)	(*)	(*)	(*)	(*)	1	(*)	(*)	(*)	(*)	(*)	21
	Poorest	(*)	(*)	(*)	(*)	(*)	20	(0.0)	(59.9)	(16.2)	(23.9)	(100.0)	37
<b>Total</b>	Second	(*)	(*)	(*)	(*)	(*)	5	(*)	(*)	(*)	(*)	(*)	24
	Middle	(*)	(*)	(*)	(*)	(*)	14	1.9	27.4	44.5	26.2	100.0	36
	Fourth	(*)	(*)	(*)	(*)	(*)	9	(0.0)	(11.9)	(56.1)	(32.0)	(100.0)	25
	Richest	(*)	(*)	(*)	(*)	(*)	13	(0.0)	(52.3)	(43.4)	(4.3)	(100.0)	26
<b>Total</b>		<b>2.1</b>	<b>48.5</b>	<b>30.4</b>	<b>17.8</b>	<b>1.3</b>	<b>62</b>	<b>.5</b>	<b>37.2</b>	<b>40.8</b>	<b>21.5</b>	<b>100.0</b>	<b>147</b>

[1] MICS indicator 8.10a

[2] MICS indicator 8.10b

(\*) Not shown, based on less than 25 unweighted cases.

## 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.

Female genital cutting or circumcision is widely practiced in many Kenyan communities. According to the 2008/09 KDHS, up to 27 per cent of women in Kenya are circumcised. The procedure is generally carried out on girls between the ages of 4 and 14 years. It is also done to infants, women who are about to be married and, sometimes, to women who are pregnant with their first child or who have just given birth. It is often performed by traditional practitioners, including midwives and barbers, without anaesthesia, using scissors, razor blades or broken glass.

FGM/C is a fundamental violation of human rights. In the absence of any perceived medical necessity, 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.8 presents the prevalence of FGM/C among women and the type and extent of the procedure. Overall, 1 out of 5 women (21 per cent) aged 15-49 years in Migori County has had some form of FGM/C. As expected, the differentials in FGM/C prevalence and level of education show that the higher the level of education of the woman, the less likely for her to undergo FGM/C. The MICS results show that 26 per cent of women who have no education have had FGM/C compared to 15 per cent among women educated up to secondary level or higher. Likewise, 29 per cent of women from the poorest quintile have had FGM/C compared to 13 per cent in households in the richest quintile.

**Table CP.8: Female genital mutilation/cutting (FGM/C) among women**

Percentage distribution of women age 15-49 years by FGM/C status, Migori County, 2011									
		Per cent distribution of women age 15-49 years:					Total	Percentage who had any form of FGM/C [1]	Number of women aged 15-49 years
		Who had FGM/C							
		No FGM/C	Had flesh removed	Were nicked	Were sewn closed	Form of FGM/C not determined			
<b>Residence</b>	Urban	80.9	16.0	0.0	3.0	0.0	100.0	19.1	202
	Rural	78.9	18.7	0.4	1.3	0.6	100.0	21.1	761
<b>Age</b>	15-19	81.5	14.0	0.0	3.4	1.0	100.0	18.5	202
	20-24	80.1	16.7	0.7	1.5	1.0	100.0	19.9	184
	25-29	79.8	18.7	0.0	1.5	0.0	100.0	20.2	205
	30-34	76.4	21.6	0.0	1.4	0.6	100.0	23.6	129
	35-39	80.2	19.8	0.0	0.0	0.0	100.0	19.8	107
	40-44	78.6	17.4	1.2	2.8	0.0	100.0	21.4	65
	45-49	74.8	23.9	1.3	0.0	0.0	100.0	25.2	71
<b>Education</b>	None	74.0	22.6	1.6	1.7	0.0	100.0	26.0	55
	Primary	78.5	19.5	0.3	1.3	0.5	100.0	21.5	731
	Secondary+	84.7	11.3	0.0	3.5	0.5	100.0	15.3	176
<b>Wealth index quintiles</b>	Poorest	71.4	26.7	0.5	0.4	1.0	100.0	28.6	228
	Second	76.3	20.8	1.2	0.5	1.2	100.0	23.7	151
	Middle	78.7	17.9	0.0	3.4	0.0	100.0	21.3	197
	Fourth	84.0	11.1	0.0	4.5	0.4	100.0	16.0	177
	Richest	86.9	13.1	0.0	0.0	0.0	100.0	13.1	210
<b>Total</b>		<b>79.4</b>	<b>18.2</b>	<b>0.3</b>	<b>1.7</b>	<b>0.5</b>	<b>100.0</b>	<b>20.6</b>	<b>963</b>

[1] MICS indicator 8.12

### Approval of Female Genital Mutilation/Cutting

Table CP.10 presents the woman's attitudes towards FGM/C. About 85 per cent of the women aged 15-49 years have heard of FGM/C in Migori County. Women in urban areas and those who have secondary or more education are more likely to have heard of FGM/C than their rural less educated counterparts. Regarding opinion as to whether the practice should be continued or discontinued, majority of the women believe that the practise should be discontinued (80 per cent).

A larger proportion of women from households in the poorest quintile want the practise continued compared to their counterparts from households in the richest quintile (11 per cent versus 3 per cent). Moreover, a larger proportion (88 per cent) of women in urban areas do not want FGM/C continued compared to their rural counterparts (78 per cent).

**Table CP.10: Approval of female genital mutilation/cutting (FGM/C)**

Percentage of women age 15-49 years who have heard of FGM/C, and per cent distribution of women according to attitudes towards whether the practice of FGM/C should be continued, Migori County, 2011									
		Percentage of women who have heard of FGM/C	Number of women aged 15-49 years	Per cent 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 [1]	Dis-continued	Depends	Don't know/ Missing	Total	
<b>Residence</b>	Urban	92.8	202	4.4	87.5	7.3	0.8	100.0	187
	Rural	83.0	761	5.9	77.7	15.3	1.1	100.0	631
<b>Age</b>	15-19	85.7	202	5.2	76.1	18.1	0.5	100.0	173
	20-24	88.5	184	8.1	82.7	9.0	0.2	100.0	163
	25-29	82.5	205	7.3	78.6	11.5	2.5	100.0	169
	30-34	84.4	129	3.6	86.2	10.1	0.0	100.0	109
	35-39	84.7	107	0.0	78.3	20.9	0.8	100.0	91
	40-44	81.4	65	4.4	85.5	10.1	0.0	100.0	53
	45-49	86.5	71	7.8	73.7	15.1	3.4	100.0	61
<b>Education</b>	None	90.0	55	2.4	91.8	3.3	2.4	100.0	50
	Primary	82.5	731	6.9	77.7	14.2	1.2	100.0	603
	Secondary +	94.0	176	1.8	84.6	13.6	0.0	100.0	166
<b>FGM/C experience</b>	No FGM/C	81.1	764	4.9	80.2	13.7	1.2	100.0	620
	Had FGM/C	100.0	199	7.8	79.2	12.5	0.5	100.0	199
<b>Wealth index quintiles</b>	Poorest	78.8	228	10.6	79.2	9.4	0.7	100.0	180
	Second	80.0	151	7.5	75.3	15.0	2.2	100.0	121
	Middle	89.8	197	4.1	74.4	20.3	1.2	100.0	177
	Fourth	85.7	177	3.0	81.6	14.7	0.7	100.0	151
	Richest	90.3	210	3.0	87.5	9.0	0.6	100.0	189
<b>Total</b>		<b>85.0</b>	<b>963</b>	<b>5.6</b>	<b>80.0</b>	<b>13.4</b>	<b>1.0</b>	<b>100.0</b>	<b>818</b>

[1] MICS indicator 8.11

### Attitudes toward Domestic Violence

A number of questions were asked of women age 15-49 years to assess their attitudes towards whether husbands are justified to hit or beat their wives/partners for a variety of reasons. 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. The responses to these questions are tabulated in Table CP.11.

**Table CP.11: 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, Migori County, 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 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 [1]	
<b>Area</b>	Urban	21.3	26.1	23.4	17.3	11.6	54.3	202
	Rural	42.1	52.1	35.6	37.6	24.1	71.0	761
<b>Age</b>	15-19	34.5	41.5	32.3	34.9	18.8	66.4	202
	20-24	38.2	48.2	38.1	28.6	24.0	70.5	184
	25-29	36.7	48.1	31.5	33.7	19.9	67.7	205
	30-34	35.1	44.5	30.8	31.4	21.5	57.9	129
	35-39	39.9	44.5	27.8	32.8	25.0	66.3	107
	40-44	39.8	49.2	28.6	34.0	20.3	68.0	65
	45-49	48.0	58.2	42.6	44.0	22.7	81.4	71
<b>Marital/ Union status</b>	Currently married/ in union	40.7	50.8	35.3	34.4	22.3	71.0	682
	Formerly married/in union	36.1	44.7	28.9	32.4	23.0	62.2	117
	Never married/in union	26.4	30.8	26.7	29.8	16.8	56.7	164
<b>Education</b>	None	40.9	56.6	35.0	25.6	19.9	64.5	55
	Primary	40.9	50.0	35.9	35.7	23.3	71.2	731
	Secondary +	23.4	29.7	20.5	26.1	14.5	53.1	176
<b>Wealth index quintiles</b>	Poorest	37.5	52.9	42.8	30.6	23.0	69.6	228
	Second	39.2	47.9	38.8	31.8	24.2	66.3	151
	Middle	46.3	56.3	31.3	46.2	24.8	77.0	197
	Fourth	46.2	48.4	27.1	43.7	24.4	71.4	177
	Richest	21.8	28.5	24.8	16.7	12.3	54.0	210
<b>Total</b>		<b>37.7</b>	<b>46.7</b>	<b>33.0</b>	<b>33.3</b>	<b>21.5</b>	<b>67.5</b>	<b>963</b>

[1] MICS indicator 8.14

Overall, a large proportion (68 per cent) of women aged 15-49 years feel that their husband/partner has a right to hit or beat them for at least one of a variety of reasons mentioned in Table CP.10. The most common reason reported for justifying wife beating is 'if she neglects the children' (47 per cent). Other justified reasons given by women were "if she goes out without telling him" (38 per cent), "if she argues with him" (33 per cent), or "if she refuses sex with him" (33 per cent). More than 1 out of 4 women (22 per cent) also feel it justifiable if a husbands/partner hits his wife/partner for burning food.

Attitudes towards domestic violence vary greatly between rural and urban areas – 54 per cent in urban areas compared to 71 per cent in rural areas. The proportion of women who accept domestic violence ranges from 71 per cent among those who are currently married/in unions 62 per cent and 57 per cent among those who were formerly married/in union or those who have never married, respectively. The proportions of women who accept domestic violence is lower among those with secondary or higher education and those from the richest households compared to the observed proportions among the less educated or those from poorest households.

## **XII. HIV/AIDS, Sexual Behaviour, and Orphan**

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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 toward 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. The HIV module was administered to women 15-49 years of age.

One indicator which is both an MDG and UNGASS indicator is the percentage of young women who have comprehensive and correct knowledge of HIV prevention and transmission. In Migori County MICS, all women who have heard of AIDS were asked whether they knew of the three main ways of HIV prevention – having only one faithful uninfected partner, using a condom every time, and abstaining from sex. The results are presented in Table HA.1.

In Migori County, almost all of the interviewed women have heard of AIDS (99.6 per cent), however, about 68 per cent of women know of the three ways of preventing HIV transmission. Eighty-five per cent of women know of having only one faithful uninfected sex partner, 83 per cent know of using a condom every time, and 83 per cent know of abstaining from sex as main ways of preventing HIV transmission.

There is small difference in proportion of women with knowledge of all the three ways of HIV prevention between those in urban and rural areas (76 per cent compared to 66 per cent). The proportion of women who know of all three ways of HIV prevention ranges from 66 among those who have ever been married or in union to 76 per cent among those who have never been married or in union counterparts.

The proportion of women who know of the two main ways of preventing HIV transmission (having only one faithful uninfected sex partner and using a condom every time) is 75 per cent. More women in urban areas (84 per cent) know both ways of preventing HIV transmission compared to 72 per cent for those from rural areas.

Similarly, there are no major differences in women who know both ways of preventing HIV transmission by marital status. The proportion ranges from 80 per cent among those who have never married or been in union to 74 per cent among those who have ever married or been in union. Across the various age groups, again no major differences are observed in knowledge of the two main ways for preventing HIV transmission. Generally, knowledge of both ways of preventing HIV transmission increases with increasing levels of the household wealth index. For example, among women from the poorest households, 66 per cent know both ways compared to 82 per cent among those from the richest households.

**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 Migori County, 2011														
	Percentage who have heard of AIDS	Percentage who know transmission can be prevented by:			Percentage of women who know both ways	Percentage of women who know all three ways	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	Number of women		
		Having only one faithful uninfected sex partner	Using a condom every time	By abstaining				Mosquito bites	Supernatural means	Sharing food with someone with AIDS				
<b>Area</b>	Rural	99.9	91.4	79.4	86.6	74.9	68.7	92.4	78.5	82.2	92.5	70.2	55.7	1241
	Urban	100.0	79.9	77.0	85.8	64.6	58.9	98.3	80.9	84.2	90.7	73.7	53.7	164
<b>Age</b>	15-24	99.5	84.9	82.0	85.1	74.6	70.7	89.9	82.3	92.3	93.3	72.1	55.3	385
	25-29	99.4	83.3	81.4	82.0	72.0	65.3	85.2	78.1	96.5	93.3	64.3	51.4	205
	30-39	100.0	87.2	84.9	77.1	77.2	65.4	91.9	83.6	96.0	95.4	77.2	61.1	236
	40-49	99.8	82.2	83.4	86.7	73.6	67.6	89.5	68.9	90.6	91.4	59.4	46.9	136
<b>Marital status</b>	Ever married/ in union	99.6	83.5	82.5	81.9	73.5	66.3	89.1	77.1	93.6	93.6	67.9	53.0	799
	Never married/ in union	100.0	90.6	84.1	86.8	79.6	75.5	90.4	92.9	95.2	93.1	79.9	63.0	164
<b>Education</b>	None	96.4	81.7	79.3	68.9	73.2	55.2	86.0	73.8	91.6	88.6	63.9	48.0	55
	Primary	99.8	84.5	82.2	82.9	73.7	67.2	88.4	78.0	93.6	93.5	67.4	52.1	731
	Secondary +	99.8	86.7	86.0	86.2	78.4	74.3	94.4	89.3	95.7	95.2	82.3	67.8	176
<b>Wealth index quintiles</b>	Poorest	99.4	83.9	73.8	75.2	66.1	59.2	83.7	73.9	93.3	90.3	58.7	40.2	228
	Second	98.7	78.4	78.0	82.8	67.0	58.4	88.9	75.8	90.0	91.3	66.3	49.7	151
	Middle	99.8	87.3	87.5	87.3	80.9	76.9	91.6	78.9	96.7	96.8	71.5	60.0	197
	Fourth	100.0	85.3	85.2	88.3	75.8	72.5	90.6	84.9	91.2	93.0	74.7	58.1	177
	Richest	100.0	87.3	89.5	81.8	82.2	71.5	92.5	85.7	97.0	96.0	79.0	66.3	210
<b>Total</b>		<b>99.6</b>	<b>84.7</b>	<b>82.8</b>	<b>82.7</b>	<b>74.5</b>	<b>67.8</b>	<b>89.3</b>	<b>79.8</b>	<b>93.9</b>	<b>93.5</b>	<b>69.9</b>	<b>54.7</b>	<b>963</b>

[1] MICS indicator 9.1

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

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 Migori County, 2011														
	Percentage who have heard of AIDS	Percentage who know transmission can be prevented by:			Percentage of women who know both ways	Percentage of women who know all three ways	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 [1]	Number of women age 15-24		
		Having only one faithful sex partner	Using a condom every time	By abstaining				Mosquito bites	Supernatural means	Sharing food with someone with AIDS				
<b>Area</b>	Urban	100.0	86.3	86.6	91.9	80.4	79.2	96.6	92.9	96.1	96.8	86.7	71.3	94
	Rural	99.3	84.5	80.5	82.9	72.7	68.0	87.7	78.8	91.1	92.1	67.4	50.1	292
<b>Age</b>	15-19	99.4	88.9	82.4	84.5	77.3	72.6	87.7	85.9	92.1	91.2	72.8	57.6	202
	20-24	99.6	80.6	81.4	85.8	71.5	68.7	92.4	78.3	92.6	95.6	71.4	52.8	184
<b>Marital status</b>	Ever married/in union	99.1	81.2	80.8	84.2	71.5	67.9	89.1	75.0	90.4	93.6	66.5	50.0	227
	Never married/in union	100.0	90.3	83.6	86.4	78.9	74.8	91.0	92.7	95.1	92.8	80.1	62.7	159
<b>Education</b>	None	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	12
	Primary	100.0	84.2	81.5	84.0	73.4	69.2	88.8	79.3	92.0	93.1	68.2	51.0	285
	Secondary +	100.0	88.5	85.6	89.7	79.4	77.1	94.5	92.9	94.6	95.2	84.6	68.8	88
	Poorest	98.6	83.8	72.9	72.4	66.3	58.6	84.6	78.2	91.4	91.1	64.8	43.6	92
<b>Wealth index quintiles</b>	Second	98.7	85.0	81.3	81.5	74.4	68.3	87.8	76.3	86.6	83.7	57.9	44.8	53
	Middle	100.0	90.4	88.0	92.4	82.1	80.3	89.9	81.6	95.1	97.7	73.0	60.7	86
	Fourth	100.0	79.5	85.5	91.3	71.0	70.1	93.0	82.4	91.1	95.0	76.3	53.5	73
	Richest	100.0	85.4	83.1	88.5	79.3	76.6	94.5	91.3	95.3	95.7	84.9	71.1	82
<b>Total</b>	<b>99.5</b>	<b>84.9</b>	<b>82.0</b>	<b>85.1</b>	<b>74.6</b>	<b>70.7</b>	<b>89.9</b>	<b>82.3</b>	<b>92.3</b>	<b>93.3</b>	<b>72.1</b>	<b>55.3</b>	<b>385</b>	

[1] MICS indicator 9.2; MDG indicator 6.3

(\*) Not shown, based on less than 25 unweighted cases.

The results for women age 15-24 are separately presented in Table HA.2. Seventy-one per cent of young women know of the three ways of HIV prevention. Eighty-five per cent of young women know of having only one faithful uninfected sex partner, 82 per cent know of using a condom every time, and 85 per cent know of abstaining from sex as main ways of preventing HIV transmission. The proportion of young women in rural areas who know of all three ways of HIV prevention (68 per cent) is lower than what is observed for their urban counterparts (79 per cent). There is, however, no major variation in the proportion of women with knowledge of all three ways of HIV prevention across the women's marital status, and ages. The proportion of young women who know all three ways was lower among those from the poorest households at 59 per cent versus 77 per cent among those from the richest households.

Three out of four (75 per cent) young women aged 15-24 years know of the two main ways of HIV prevention. Generally, knowledge of both ways of preventing HIV transmission among young women ranges from 66 per cent among those from the poorest households to 82 and 79 per cent of those from the middle and richest households.

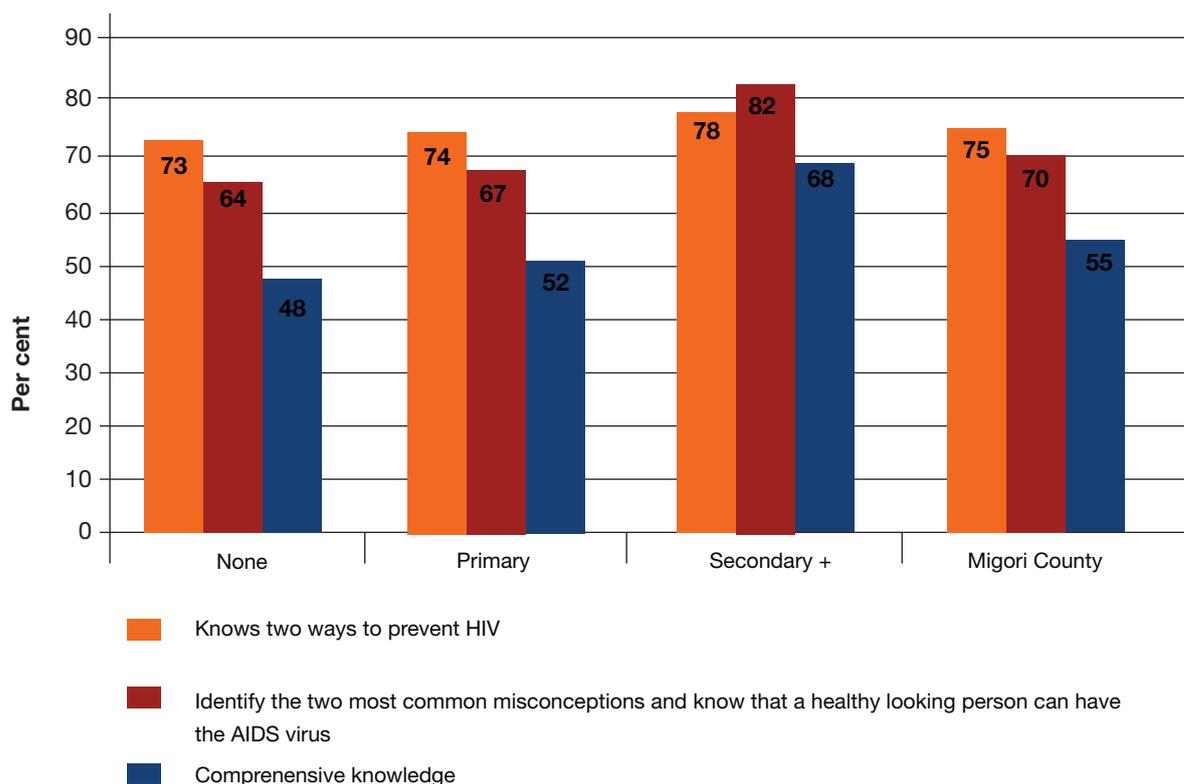
Table HA.1 and HA.2 also present the percentage of women who can correctly identify misconceptions concerning HIV. The indicator is based on the two most common and relevant misconceptions i.e., that HIV can be transmitted by mosquito bites and sharing food with someone with AIDS. The table also provides information on whether women know that HIV cannot be transmitted by supernatural means. Of the interviewed women, 70 per cent reject the two most common misconceptions and know that a healthy-looking person can be infected. Eighty (80) per cent of women know that HIV cannot be transmitted by mosquito bites, and 94 per cent of women know that HIV cannot be transmitted by sharing food with someone with AIDS, while 89 per cent of women know that a healthy-looking person can be infected (Table HA.1).

Overall, the proportion of women who reject the two most common misconceptions and know that a healthy looking person can have the AIDS virus ranges from 80 per cent in urban areas to 67 per cent for those from rural areas. The proportion of women who reject the two most common misconceptions and have knowledge that a healthy looking person can have the AIDS virus ranges from 77 per cent among women aged 30-39 years to 59 per cent among those aged 40-49 years.

From Table HA.1, the proportion of women who reject the two most common misconceptions and know that a healthy looking person can have the AIDS virus increases with increasing levels of woman's education (64 per cent among women with no education to 82 per cent among those with secondary or higher education). The proportion of women who have never married or been in union who reject the two most common misconceptions and know that a healthy looking person can have the AIDS virus is 80 per cent versus 68 per cent for those who have ever been married or in union. Moreover, rejection of the two most common misconceptions and knowledge that a healthy looking person can have the AIDS virus increases with increasing levels of household wealth index. The figures range from 59 per cent among women in from the poorest households to 79 per cent among those from the richest households.

Women who have comprehensive knowledge about HIV prevention include women who know of the two 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 still fairly low in Migori County (55 per cent). Comprehensive knowledge is higher in urban areas (68 per cent) versus rural areas (51 per cent). Comprehensive knowledge of HIV prevention methods and transmission increases with increasing woman's education status i.e. from 48 per cent among those with no education to 68 per cent among those with secondary or higher--see Figure HA.1.

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



Similarly, comprehensive knowledge increases with increasing levels of household wealth. It ranges from 40 per cent among those from the poorest households to 66 per cent among those from the richest households. The proportion of women who have comprehensive knowledge is 63 per cent among those who have never been married or been in union ( ) compared to 53 per cent for those who have ever married or been in union.

Among younger women aged 15-24 years, comprehensive knowledge of HIV prevention and transmission is 55 per cent. Similar patterns of comprehensive knowledge across socioeconomic and background characteristics are also observed among young women aged 15-24 years, similar to what was observed among the 15-49 year olds. For example, comprehensive knowledge is higher among young women in urban areas, those who have never married or in union or those from wealthier households, and those from rural areas.

### Knowledge of mother-to-child transmission

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 of the baby. Women should know that HIV can be transmitted during pregnancy, 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, 95 per cent of women know that HIV can be transmitted from mother to child. The proportion of women who know all three ways of mother-to-child transmission is 46 per cent, while 5 per cent of women did not know of any specific way.

Knowledge of all three ways of mother-to-child transmission is highest (52 per cent) among women aged 20-24 years. There are no major variations in knowledge of all three ways of mother-to-child transmission between women in urban (44 per cent) and rural (46 per cent) areas. Moreover, there are no major differences in the proportion of women with knowledge of all three ways of mother-to-child transmission across levels of education and household wealth index.

**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, Migori County, 2011									
		Percentage who know HIV can be transmitted from mother to child	Per cent who know HIV can be transmitted:				Does not know any of the specific means	Number of women	
			During pregnancy	During delivery	By breast-feeding	All three means [1]			
<b>Area</b>	Urban	96.5	49.2	83.0	90.6	44.2	3.5	202	
	Rural	94.8	56.1	82.3	86.6	46.4	4.8	761	
<b>Age group</b>	15-24	95.5	53.2	83.1	88.9	45.9	4.0	385	
	25+	94.9	55.6	82.1	86.5	46.0	4.8	577	
<b>Age group</b>	15-19	94.8	46.7	80.0	89.4	39.9	4.5	202	
	20-24	96.2	60.3	86.4	88.3	52.4	3.4	184	
	25-29	97.3	57.4	82.3	90.0	48.9	2.1	205	
	30-39	95.0	54.3	83.9	85.3	44.1	5.0	236	
<b>Age group</b>	40-49	91.0	55.3	78.7	83.5	44.7	8.8	136	
	<b>Marital status</b>	Ever married/in union	94.8	55.6	82.9	86.8	46.7	4.8	799
		Never married/in union	96.7	49.9	80.2	90.9	42.2	3.3	164
	<b>Education</b>	None	85.2	44.8	77.1	84.0	39.2	11.2	55
Primary		95.4	57.2	81.7	87.3	47.3	4.5	731	
Secondary +		97.3	47.3	87.4	89.2	42.3	2.5	176	
<b>Wealth index quintiles</b>	Poorest	92.6	63.0	79.0	82.6	51.2	6.9	228	
	Second	92.7	61.9	75.7	83.2	48.9	6.0	151	
	Middle	96.5	50.6	85.8	93.1	45.2	3.4	197	
	Fourth	98.7	45.5	81.3	91.9	38.0	1.3	177	
	Richest	95.4	51.9	89.0	86.9	45.4	4.6	210	
<b>Total</b>		<b>95.1</b>	<b>54.7</b>	<b>82.5</b>	<b>87.5</b>	<b>45.9</b>	<b>4.5</b>	<b>963</b>	

[1] MICS indicator 9.3

## 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 was 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 Migori County, almost all (99 per cent) of women who have heard of AIDS agree with at least one accepting attitude. The least common accepting attitude is-- Would not want to keep secret that a family member got infected with the AIDS virus (18 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, Migori County, 2011								
		Per cent 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 [1]	
<b>Area</b>	Urban	98.4	69.2	75.7	19.8	98.6	13.0	202
	Rural	94.9	73.2	69.8	17.5	98.6	9.6	757
<b>Age</b>	15-24	95.0	72.1	71.8	15.2	98.5	8.5	383
	15-19	93.4	70.7	70.0	17.7	98.2	9.2	200
	20-24	96.7	73.8	73.8	12.6	98.9	7.6	183
	25-29	97.1	75.5	67.5	16.1	99.3	8.3	204
	30-39	95.9	73.5	77.1	18.9	98.5	13.6	236
	40-49	94.8	66.3	63.8	26.6	97.9	12.8	136
<b>Marital status</b>	Ever married/in union	95.7	71.9	70.1	17.9	98.4	10.4	795
	Never married/in union	95.3	74.5	75.6	18.0	99.5	9.8	164
<b>Education</b>	None	94.3	74.9	65.9	25.6	100.0	21.6	53
	Primary	94.8	69.6	67.1	17.7	98.3	8.9	730
	Secondary +	99.3	82.9	89.2	16.8	99.3	12.6	176
<b>Wealth index quintiles</b>	Poorest	93.8	74.0	70.3	13.2	98.6	6.2	227
	Second	95.3	68.2	67.9	14.6	98.7	6.4	149
	Middle	95.7	76.2	71.5	17.8	99.1	10.8	196
	Fourth	95.0	69.8	69.3	20.1	97.5	11.7	177
	Richest	98.4	72.0	75.2	23.8	99.0	15.8	210
<b>Total</b>		<b>95.6</b>	<b>72.3</b>	<b>71.1</b>	<b>18.0</b>	<b>98.6</b>	<b>10.3</b>	<b>959</b>

[1] MICS indicator 9.4

There is no major variation in accepting attitudes towards people living with HIV/AIDS across women in urban and rural areas or between those who have ever been married or in union and never married women. However, accepting attitudes on all four indicators appears to increase with increasing levels of the household wealth index.

### 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 one's 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 is presented in Table HA.5. In Migori County, 95 per cent of women know where to be tested, while only 53 per cent have actually been tested. There is no major differences in the proportion of women who know a place to get tested across rural and urban areas; however, the proportion of women who have ever been tested is 63 per cent among women in urban areas versus 50 per cent for rural areas.

There is no clear pattern in the variation in the proportion of women with knowledge of a place to get tested and a woman's age. However, the proportion of those who have ever been tested seems to increase with age of the women. For example, among the 15-19 year old women, only 40 per cent have been tested, compared to 65 per cent among those aged 45-49 years. Knowledge of a place for HIV testing and the proportion of those who have ever been tested increases with increasing levels of the household wealth index.

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

<b>Percentage of women age 15-49 years who know where to get an HIV test and percentage of women who have ever been tested, Migori County, 2011</b>				
		Percentage of women who:		Number of women
		Know a place to get tested [1]	Have ever been tested	
<b>Area</b>	Urban	97.9	62.7	202
	Rural	93.9	49.9	761
<b>Age</b>	15-19	88.9	39.8	202
	20-24	95.2	44.5	184
	25-29	95.4	50.3	205
	30-34	96.0	60.7	129
	35-39	98.5	63.9	107
	40-44	97.7	74.1	65
	45-49	97.5	64.7	71
<b>Marital status</b>	Ever married/in union	95.8	54.3	799
	Never married/in union	89.5	44.2	164
<b>Education</b>	None	95.2	73.1	55
	Primary	93.9	49.1	731
	Secondary +	98.1	60.4	176
<b>Wealth index quintiles</b>	Poorest	89.2	42.1	228
	Second	93.2	43.9	151
	Middle	96.3	52.2	197
	Fourth	96.9	60.2	177
	Richest	98.6	64.2	210
<b>Total</b>		<b>94.7</b>	<b>52.6</b>	<b>963</b>
[1] MICS indicator 9.5				

Table HA.6 presents similar results as HA.5 but for sexually active young women. The proportion of young women who have been tested and have been told the result provides a measure of the effectiveness of interventions that promote HIV counselling and testing among young people. This is important to know, because young people may feel that there are barriers to accessing services related to sensitive issues, such as sexual health.

Eighty (80) per cent of women aged 15-24 years had sex in the last 12 months preceding the survey but only 43 per cent of them have ever been tested. More than half (55 per cent) of young women who have never married or been in union had sex in the last 12 months preceding the survey. However, there is no major variation in the proportion of women who have ever been tested between those who have ever married or been in union and their never married counterparts. The proportion of women aged 20-24 years who had sex in the last 12 months preceding the survey was 96 per cent versus 66 per cent for those aged 15-19 years. There are no remarkable differentials in the proportions of women who know of a place

to get tested and have ever been tested between the two age groups. There are no major differences in the proportion of young women having had sex in the last 12 months across levels of household wealth index, although the proportion of those who were tested and given the results is higher among those from wealthier households.

**Table HA.6: Knowledge of a place for HIV testing among sexually active young women**

Percentage of women age 15-24 years who have had sex in the last 12 months, and among women who have had sex in the last 12 months, the percentage who know where to get an HIV test, percentage of women who have ever been tested and percentage of women who have been tested and have been told the result, Migori County, 2011							
		Percentage who have had sex in the last 12 months	Number of women age 15-24 years	Percentage of women who:			Number of women age 15-24 years who have had sex in the last 12 months
				Know a place to get tested	Have ever been tested	Have been tested and have been told result [1]	
<b>Area</b>	Urban	72.2	94	97.7	56.9	56.9	68
	Rural	82.9	292	92.0	38.7	36.1	242
<b>Age</b>	15-19	66.1	202	91.0	40.2	39.6	133
	20-24	95.8	184	94.9	44.5	41.5	176
<b>Marital status</b>	Ever married/ in union	97.9	227	93.6	41.7	38.9	222
	Never married/ in union	55.2	159	92.2	45.1	45.1	88
<b>Education</b>	None	*	12	*	*	*	11
	Primary	83.3	285	93.3	39.2	37.2	238
	Secondary +	69.0	88	95.0	51.3	51.3	61
<b>Wealth index quintiles</b>	Poorest	76.2	92	88.1	35.2	30.4	70
	Second	81.3	53	(94.9)	(25.6)	(22.6)	43
	Middle	85.6	86	91.9	32.8	32.8	74
	Fourth	86.9	73	95.5	58.1	57.0	64
	Richest	72.8	82	97.4	59.4	57.9	59
<b>Total</b>		<b>80.3</b>	<b>385</b>	<b>93.2</b>	<b>42.7</b>	<b>40.7</b>	<b>309</b>
[1] MICS indicator 9.7							
(*) Not shown, based on less than 25 unweighted cases.							
() Based on 25-49 unweighted cases.							

Among women who had given birth within the two years preceding the survey, the percentage who received counselling and HIV testing during antenatal care is presented in Table HA.7. A high proportion (87 per cent) of women who gave birth in the last two years preceding the survey received antenatal care from a health care professional during the last pregnancy. Seventy nine per cent of all the women received HIV counselling during antenatal care; of these only 77 per cent were offered an HIV test and were tested for HIV during antenatal care.

**Table HA.7: HIV counselling 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, Migori County, 2011							
		Per cent of women who:					Number of women who gave birth in the 2 years preceding the survey
		Received antenatal care from a health care professional for last pregnancy	Received HIV counselling during antenatal care [1]	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 [2]	Received HIV counselling, were offered an HIV test, accepted and received the results	
<b>Area</b>	Urban	(92.9)	(89.0)	(89.0)	(92.9)	(89.0)	41
	Rural	86.3	78.1	77.4	84.5	75.6	285
<b>Young women</b>	15-24	89.3	79.6	78.9	87.2	77.6	151
<b>Age</b>	15-19	84.6	73.7	72.0	81.1	70.3	56
	20-24	92.0	83.0	83.0	90.8	81.9	95
	25-29	85.2	79.4	79.4	84.4	76.7	90
	30-34	(89.4)	(80.6)	(80.6)	(87.1)	(80.6)	44
	35-49	(80.9)	(77.7)	(75.3)	(80.1)	(74.0)	41
<b>Marital status</b>	Ever married/in union	87.1	79.6	78.9	85.4	77.3	306
	Never married/in union	(*)	(*)	(*)	(*)	(*)	20
<b>Education</b>	None	(*)	(*)	(*)	(*)	(*)	6
	Primary	86.7	79.2	78.5	85.8	77.5	280
	Secondary +	(90.5)	(81.9)	(81.9)	(85.4)	(76.8)	40
<b>Wealth index quintiles</b>	Poorest	78.2	71.6	69.8	76.0	69.0	107
	Second	96.3	71.2	71.2	88.9	69.1	52
	Middle	88.9	87.0	87.0	93.4	87.0	68
	Fourth	89.9	90.1	90.1	86.0	84.3	52
	Richest	(91.4)	(83.8)	(83.8)	(91.4)	(83.8)	47
<b>Total</b>		<b>87.1</b>	<b>79.4</b>	<b>78.8</b>	<b>85.5</b>	<b>77.3</b>	<b>326</b>
[1] MICS indicator 9.8							
[2] MICS indicator 9.9							
(*) Not shown, based on less than 25 unweighted cases.							
() Based on 25-49 unweighted cases							

The proportion of women who were offered an HIV test and were tested for HIV during antenatal care, and received the results was 77 per cent. The proportion of women who were offered an HIV test and were tested for HIV during antenatal care and received the results appears to increase with increasing levels of the household wealth index. For example, the proportion is only 63 per cent among women from the poorest households versus 81 per cent among those from the fourth richest households.

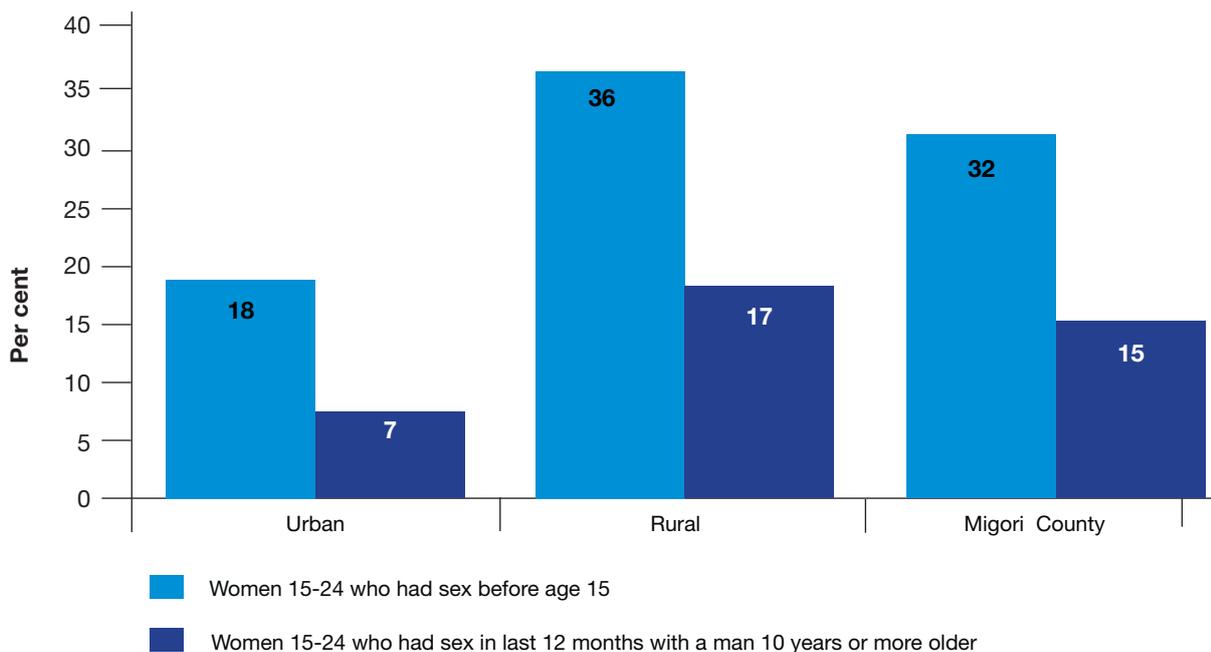
## Sexual Behaviour Related to HIV Transmission

Promoting safer sexual behaviour is critical for reducing HIV prevalence. The use of condoms during sex, especially with non-regular partners, is especially important for reducing the spread of HIV. In most counties in Kenya, over half of new HIV infections are among young people 15-24 years thus a change in behaviour among this age group will be especially important to reduce new infections. A module of questions was administered to women 15-24 years of age to assess their risk of HIV infection. Risk factors for HIV include sex at an early age, sex with older men, sex with a non-marital non-cohabitating partner, and failure to use a condom. The frequency of sexual behaviours that increase the risk of HIV infection among women is presented in Table HA.8 and Figure HA.2.

**Table HA.8: Sexual behaviour that increases the risk of HIV infection**

Percentage of never-married young women age 15-24 years who have never had sex, percentage of young women age 15-24 years who have had sex before age 15, and percentage of young women age 15-24 years who had sex with a man 10 or more years older during the last 12 months, Migori County, 2011							
		Percentage of never-married women age 15-24 years who have never had sex [1]	Number of never-married women age 15-24 years	Percentage of women age 15-24 years who had sex before age 15 [2]	Number of women age 15-24 years	Percentage of women age 15-24 years who had sex in the last 12 months with a man 10 or more years older [3]	Number of women age 15-24 years who had sex in the 12 months preceding the survey
<b>Residence</b>	Urban	(56.3)	46	17.9	94	6.5	68
	Rural	31.4	112	36.5	292	17.4	242
<b>Age</b>	15-19	44.1	135	32.5	202	8.9	133
	20-24	*	24	31.4	184	19.6	176
<b>Marital status</b>	Ever married/in union	.	0	39.1	227	20.9	222
	Never married/in union	38.7	159	21.8	159	0.0	88
<b>Education</b>	None	.	0	*	12	*	11
	Primary	37.9	96	36.4	285	17.7	238
	Secondary +	40.0	62	18.7	88	4.8	61
<b>Wealth index quintiles</b>	Poorest	(47.2)	31	32.5	92	18.8	70
	Second	*	20	28.4	53	(11.3)	43
	Middle	(27.0)	35	48.0	86	19.3	74
	Fourth	(26.2)	37	27.6	73	15.6	64
	Richest	(60.2)	37	20.7	82	7.2	59
<b>Total</b>	<b>38.7</b>	<b>159</b>	<b>32.0</b>	<b>385</b>	<b>15.0</b>	<b>309</b>	<b>281</b>
[1] MICS indicator 9.10							
[2] MICS indicator 9.11							
[3] MICS indicator 9.12							
* Not shown, based on less than 25 unweighted cases.							
() Based on 25-49 unweighted cases							

**Figure HA.2: Sexual behaviour that increases risk of HIV infection by residence, Migori County, 2011**



More than a third (39 per cent) of never-married young women aged 15-24 years have never had sex in Migori County. Almost a third (32 per cent) of young women aged 15-24 years had sex before age 15. About 37 per cent of young women in rural areas have had sex before age 15 versus 18 per cent for those from urban areas.

Fifteen per cent of young women aged 15-24 years had sex in the last 12 months with a man 10 or more years older. Women aged 20-24 years are twice (20 per cent) as likely to have had sex in the last 12 months with a man 10 or more years older than their younger counterparts (9 per cent). All young women who have had sex in the last 12 months with a man 10 or more years older have ever been married or been in union. Overall, young women in urban areas are less likely to engage in sexual behaviours that increase the risk of HIV infection compared to their rural counterparts as shown in Figure HA.2.

Sexual behaviour and condom use during sex with more than one partner was assessed in all women and separately for women aged 15-24 years who had sex with such a partner in the previous year (Tables HA.9 and HA.10). About 4 per cent of women 15-49 years of age report having sex with more than one partner in the last 12 months.

**Table HA.9: Sex with multiple partners**

Percentage of women age 15-49 years who ever had sex, percentage who had sex in the last 12 months, percentage who have had sex with more than one partner in the last 12 months and among those who had sex with multiple partners, the percentage who used a condom at last sex, Migori County, 2011							
		Percentage of women who:			Number of women age 15-49 years	Per cent of women age 15-49 years who had more than one sexual partner in the last 12 months, who also reported that a condom was used the last time they had sex [2]	Number of women age 15-49 years who had more than one sexual partner in the last 12 months
		Ever had sex	Had sex in the last 12 months	Had sex with more than one partner in last 12 months [1]			
<b>Residence</b>	Urban	87.1	78.1	5.8	202	*	12
	Rural	95.4	87.5	3.5	761	(35.1)	26
<b>Age</b>	15-19	70.4	66.1	4.2	202	*	8
	20-24	99.0	95.8	4.1	184	*	8
	25-29	100.0	98.2	3.9	205	*	8
	30-34	100.0	89.4	3.7	129	*	5
	35-39	100.0	89.0	5.7	107	*	6
	40-44	100.0	74.4	3.4	65	*	2
	45-49	100.0	75.6	1.3	71	*	1
<b>Marital status</b>	Ever married/in union	100.0	91.8	3.8	799	(32.7)	31
	Never married/in union	62.5	55.1	4.6	164	*	7
<b>Education</b>	None	100.0	65.9	0.0	55	.	0
	Primary	95.0	88.4	4.8	731	(46.1)	35
	Secondary +	85.8	80.0	1.7	176	*	3
<b>Wealth index quintiles</b>	Poorest	93.6	82.5	2.7	228	*	6
	Second	96.2	88.8	7.4	151	*	11
	Middle	95.2	89.6	2.9	197	*	6
	Fourth	94.5	86.8	1.9	177	*	3
	Richest	89.4	81.8	5.5	210	*	11
<b>Total</b>		<b>93.6</b>	<b>85.5</b>	<b>3.9</b>	<b>963</b>	<b>(42.5)</b>	<b>38</b>
[1] MICS indicator 9.13							
[2] MICS indicator 9.14							
* Not shown, based on less than 25 unweighted cases.							
() Based on 25-49 unweighted cases							

Overall, 84 per cent of young women aged 15-24 have ever had sex, and 80 per cent had sex in the last 12 months preceding the survey. About 4 per cent had sex with more than one partner in the same period as shown in Table HA.10.

**Table HA.10: Sex with multiple partners (Young women)**

Percentage of women age 15-24 years who ever had sex, percentage who had sex in the last 12 months, percentage who have had sex with more than one partner in the last 12 months and among those who had sex with multiple partners, the percentage who used a condom at last sex, Migori County, 2011							
		Percentage of women who:			Number of women age 15-24 years	Per cent of women age 15-24 years who had more than one sexual partner in the last 12 months, who also reported that a condom was used the last time they had sex [2]	Number of women age 15-24 years who had more than one sexual partner in the last 12 months
		Ever had sex	Had sex in the last 12 months	Had sex with more than one partner in last 12 months [1]			
<b>Residence</b>	Urban	72.2	72.2	6.2	94	*	6
	Rural	87.9	82.9	3.5	292	*	10
<b>Age</b>	15-19	70.4	66.1	4.2	202	*	8
	20-24	99.0	95.8	4.1	184	*	8
<b>Marital status</b>	Ever married/in union	100.0	97.9	3.9	227	*	9
	Never married/in union	61.3	55.2	4.4	159	*	7
<b>Education</b>	None	*	*	*	12	*	0
	Primary	87.2	83.3	4.8	285	*	14
	Secondary +	71.7	69.0	2.6	88	*	2
<b>Wealth index quintiles</b>	Poorest	84.2	76.2	2.7	92	*	3
	Second	89.1	81.3	6.9	53	*	4
	Middle	89.1	85.6	2.2	86	*	2
	Fourth	86.9	86.9	3.3	73	*	2
	Richest	72.8	72.8	6.8	82	*	6
<b>Total</b>		<b>84.1</b>	<b>80.3</b>	<b>4.1</b>	<b>385</b>	<b>*</b>	<b>16</b>
* Not shown, based on less than 25 unweighted cases. ( ) Based on 25-49 unweighted cases							

Tables HA.11 presents the percentage of women age 15-24 years who ever had sex, percentage who had sex in the last 12 months, percentage who have had sex with a non-marital, non-cohabiting partner in the last 12 months and among those who had sex with a non-marital, non-cohabiting partner, the percentage who used a condom the last time they had sex with such a partner.

About 14 per cent of young women aged 15-24 years have had sex with a non-marital, non-cohabiting partner in the last 12 months preceding the survey. The proportion of women who have had sex with a non-marital, non-cohabiting partner in the last 12 months preceding the survey is 26 per cent among women aged 15-19 years and 5 per cent among those aged 20-24 years.

**Table HA.11: Sex with non-regular partners**

Percentage of women age 15-24 years who ever had sex, percentage who had sex in the last 12 months, percentage who have had sex with a non-marital, non-cohabiting partner in the last 12 months and among those who had sex with a non-marital, non-cohabiting partner, the percentage who used a condom the last time they had sex with such a partner, Migori County, 2011							
	Percentage of women 15-24 who:		Number of women age 15-24 years	Percentage who had sex with a non-marital, non-cohabiting partner in the last 12 months [1]	Number of women age 15-24 years who had sex in the last 12 months	Percentage of women age 15-24 years who had sex with a non-marital, non-cohabiting partner in the last 12 months, who also reported that a condom was used the last time they had sex with such a partner [2]	Number of women age 15-49 years who had more than one sexual partner in the last 12 months
	Ever had sex	Had sex in the last 12 months					
<b>Residence</b>							
Urban	72.2	72.2	94	10.3	68	*	7
Rural	87.9	82.9	292	15.4	242	(74.1)	37
<b>Age</b>							
15-19	70.4	66.1	202	26.3	133	(79.7)	35
20-24	99.0	95.8	184	5.2	176	*	9
<b>Marital status</b>							
Ever married/in union	100.0	97.9	227	3.9	222	*	9
Never married/in union	61.3	55.2	159	40.6	88	(78.4)	36
<b>Education</b>							
None	*	*	12	*	11	.	0
Primary	87.2	83.3	285	12.6	238	(67.2)	30
Secondary +	71.7	69.0	88	23.4	61	(82.7)	14
<b>Wealth index quintiles</b>							
Poorest	84.2	76.2	92	6.8	70	*	5
Second	89.1	81.3	53	(13.4)	43	*	6
Middle	89.1	85.6	86	14.1	74	*	10
Fourth	86.9	86.9	73	25.4	64	*	16
Richest	72.8	72.8	82	11.9	59	*	7
	<b>84.1</b>	<b>80.3</b>	<b>385</b>	<b>14.3</b>	<b>309</b>	<b>(72.2)</b>	<b>44</b>
[1] MICS indicator 9.15							
[2] MICS indicator 9.16; MDG indicator 6.2							

## Orphans

As the HIV epidemic progresses, more and more children are becoming orphaned and vulnerable because of AIDS. Children who are orphaned or in vulnerable households may be at increased risk of neglect or exploitation if the parents are not available to assist them. Monitoring the variations in different outcomes for orphans and vulnerable children and comparing them to their peers gives us a measure of how well communities and governments are responding to their needs. Orphans are defined as children under age 18 who have lost one or both parents.

The frequency of children living with neither parent, mother only, and father only is presented in Table HA.12. Two out of three (66 per cent) children aged 0-17 years in Migori County live with both parents. There is no major variation in the proportions of male and female children who live with both parents. A similar pattern is observed for urban-rural residence. As expected, the proportion of children living with both parents decreases with increasing age of the child.

**Table HA.12: Children's living arrangements and orphanhood**

Percentage 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, Migori County, 2011													
	Living with both parents	Living with neither parent			Living with mother only		Living with father only		Impossible to determine	Total	Not living with a biological parent [1]	One or both parents dead [2]	Number of children age 0-17 years
		Only father alive	Only mother alive	Both are alive	Both are dead	Father alive	Father dead	Mother alive					
<b>Sex</b>													
	Male	66.5	0.8	2.0	6.1	3.8	5.8	11.0	1.2	1.7	12.7	19.4	1493
	Female	65.6	1.6	2.3	8.0	3.1	5.2	10.1	1.2	1.8	15.0	18.9	1533
<b>Residence</b>													
	Urban	65.4	1.6	1.4	11.8	3.3	8.7	5.7	1.2	0.3	18.1	12.4	473
	Rural	66.2	1.2	2.3	6.2	3.5	4.9	11.4	1.2	2.0	13.1	20.4	2552
<b>Age</b>													
	0-4	78.9	0.1	0.7	4.6	0.6	6.7	5.8	0.8	0.7	6.1	7.9	936
	5-9	67.5	1.2	1.3	7.2	2.9	5.7	10.0	1.4	1.8	12.6	17.2	993
	10-14	57.1	1.7	3.8	8.6	6.0	4.2	13.7	1.8	2.9	20.1	28.2	756
	15-17	46.4	3.6	4.7	9.8	7.1	4.1	18.3	0.5	1.9	25.2	35.8	340
<b>Wealth index quintiles</b>													
	Poorest	61.6	0.9	1.3	6.8	4.0	7.1	14.1	1.8	0.9	13.0	21.2	818
	Second	66.6	1.3	2.8	3.7	2.1	6.9	11.4	1.8	2.0	10.0	19.9	475
	Middle	70.6	1.8	3.2	6.6	4.0	2.1	8.2	0.4	2.3	15.6	19.4	633
	Fourth	64.8	2.1	2.7	5.0	4.0	5.6	11.6	1.7	2.2	13.7	22.6	550
	Richest	68.4	0.3	1.0	12.8	2.6	5.5	6.2	0.2	1.6	16.7	11.8	549
<b>Total</b>		<b>66.1</b>	<b>1.2</b>	<b>2.1</b>	<b>7.0</b>	<b>3.4</b>	<b>5.5</b>	<b>10.5</b>	<b>1.2</b>	<b>1.7</b>	<b>13.9</b>	<b>19.2</b>	<b>3025</b>

[1] MICS indicator 9.17

[2] MICS indicator 9.18

Fourteen per cent of children below 18 years are not living with a biological parent. As expected, the proportion of children not living with a biological parent increases with increasing age of a child. The proportion of children not living with a biological parent is 18 per cent in urban areas and 13 per cent in rural areas. However, there are no major variations in the proportions of children not living with a biological parent across gender or household wealth index.

About 1 out of 5 (19 per cent) children aged 0-17 years have one or both parents' dead. There is no major difference in the proportion of children who have one or both parents dead across gender or household wealth index, but the proportion varies with age and urban-rural residence. For example, the proportion of children who have lost one or both parents ranges from 20 per cent in rural areas to 12 per cent in urban areas.

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 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.

In Migori County, 6 per cent of children aged 10-14 years have lost both parents with no major difference by gender of child (Table HA.13). This proportion is comparable across gender, and urban-rural areas. Among those who have lost both parents, nearly all (97 per cent) are currently attending school, although this figure is based on fewer cases. Similarly, nearly all (99 per cent) children age 10-14 years who have not lost a parent and who live with at least one parent are attending school. This suggests that double orphans are not disadvantaged compared to the non-orphaned children in terms of school attendance.

**Table HA.13: School attendance of orphans and non-orphans**

School attendance of children age 10-14 years by orphanhood, Migori County, 2011									
		Percent- age of children whose mother and father have died (orphans)	Percent- age of children of whom both par- ents are alive and child is living with at least one parent (non- orphans)	Number of children age 10-14 years	Percent- age of children who are orphans and are attending school [1]	Total number of orphan children age 10-14 years	Percent- age of children who are non- orphans and are attending school [2]	Total number of non- orphan children age 10-14 years	Orphans to non- orphans school at- tendance ratio
<b>Sex</b>	Male	5.8	65.1	382	*	22	99.5	249	1.01
	Female	6.1	61.1	374	*	23	98.8	228	0.95
<b>Residence</b>	Urban	3.1	68.4	118	*	4	100.0	80	1.00
	Rural	6.5	62.1	638	(96.4)	41	99.0	397	0.97
<b>Total</b>		<b>6.0</b>	<b>63.1</b>	<b>756</b>	<b>(96.7)</b>	<b>45</b>	<b>99.2</b>	<b>477</b>	<b>0.98</b>
[1] MICS indicator 9.19; MDG indicator 6.4									
[2] MICS indicator 9.20; MDG indicator 6.4									

## List of References

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1. Kenya National Bureau of Statistics and ICF Macro. 2010. Kenya Demographic and Health Survey 2008-09. Claverton, Maryland: KNBS and ICF Macro.
2. Division of Malaria Control, Ministry of Public Health and Sanitation, Guidelines for the diagnosis, treatment and prevention of Malaria in Kenya, May 2010.
3. National AIDS/STI Control Programme (NASCOP), Kenya. 2009. 2007 Kenya AIDS Indicator Survey: Final Report. Nairobi: NASCOP.
4. United Nations Children's Fund and World Health Organization. 1994. 'World Summit for Children: Mid-decade goal – Iodine deficiency disorders', report from UNICEF and WHO Joint Committee on Health Policy Special Session, Geneva, 27 January 1994
5. International Vaccine Access Centre (IVAC). 2012. VMIS Report: Global Vaccine Introduction. October 2012
6. Republic of Kenya, Ministry of Medical Services and Ministry of Public Health and Sanitation, Clinical Management and Referral Guidelines-Volume II: Clinical Guidelines for Management and Referral of Common Conditions at Levels 2-3: Primary Care, 2009
7. The United Nations Children's Fund (UNICEF) Nutrition Section, Eastern and Southern Africa Regional Office. 2007. Protecting Children's Brain Development, Strategic Review on Sustained Universal Salt Iodization in Eastern and Southern Africa, 2007

## 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 Homa Bay County Multiple Indicator Cluster Survey was to produce statistically reliable estimates of most indicators, at the county level, for urban and rural areas. The urban and rural areas within Homa Bay County were identified as the main sampling strata.

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 Homa Bay County MICS was calculated as 1250 households. For the calculation of the sample size, the key indicator used was the underweight prevalence among children aged 0-4 years. The following formula was used to estimate the required sample size for this indicator.

$$n = \frac{[4 (r) (1-r) (f) (1.1)]}{[(0.13r)^2 (p) (\bar{n}_h)]}$$

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
- 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)
- $0.12r$  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
- $\bar{n}_h$  is the average household size.

For the calculation,  $r$  (underweight prevalence) was assumed to be 30.9 per cent as per the 2008/9 KDHS. The value of *deff* (design effect) was taken as 1.4 based on the 2008-09 KDHS,  $p$  (percentage of children aged 0-59 months in Nyanza) was taken as 15 per cent and  $nh$  (average household size in Homa Bay County) was taken as [6.2] households. Both  $p$  and  $nh$  were based on the results from the 2009 Kenya Population Census. The margin of error to be tolerated at the 95 per cent level of confidence was fixed at  $0.13r$ .

The resulting number of households from this exercise was 1250. The average number of households selected per cluster for the Homa Bay County MICS was determined as 25 households, based on a number of considerations, including the design effect, the budget available, and the time that would be needed per team to complete one cluster. Dividing the total number of households by the number of sample households per cluster, it was calculated that 85 sample clusters would need to be selected in each region.

Equal allocation of the total sample size to the six regions was used. Therefore, 50 clusters were allocated to each region, with the final sample size calculated at 7500 households (50 clusters \* 6 counties \* 25 sample households per cluster). In each county, the clusters (primary sampling units) were distributed to urban and rural domains, proportional to the size of urban and rural populations in 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**

County	Total	Population (2009 Estimates)			Number of Clusters		
		Rural	Urban	Peri-urban	Urban	Rural	Total
Siaya	833984	745922	66605	21457	5	45	50
Kisumu	952828	461145	291625	200053	27	23	50
Homa Bay	955203	820029	62981	72193	7	43	50
<b>Migori</b>	<b>907743</b>	<b>603728</b>	<b>125434</b>	<b>178581</b>	<b>18</b>	<b>32</b>	<b>50</b>
Kisii	1142032	917260	87884	136888	11	39	50
Nyamira	592324	516335	23618	52371	7	43	50
<b>Total</b>					<b>75</b>	<b>225</b>	<b>300</b>

### Sampling Frame and Selection of Clusters

The 2009 census frame was used for the selection of clusters. Census enumeration areas were defined as primary sampling units (PSUs), and were selected from each of the sampling strata by using systematic pps (probability proportional to size) sampling procedures, based on the estimated sizes of the enumeration areas from the 2009 Population Census. The first stage of sampling was thus completed by selecting the required number of enumeration areas from Homa Bay County, separately by urban and rural strata.

#### Listing Activities

The sampling team created a stand-alone statistical frame for each of the Nyanza counties based on the 2009 census EAs for the purpose of MICS 4. To create the sampling frame, a complete listing of the selected EAs was undertaken by identifying and mapping all existing structures and households. The listing process ensured that the EAs had one measure of size (MoS). One MoS was defined as an EA having an average of 100 households. Prior to undertaking the fieldwork that informed the development of the frame, office processing of the EAs in the selected districts was done so that each EA with less than 50 households is amalgamated with the most convenient adjoining one. On the other hand, the EAs with more than 149 households were segmented during household listing and eventually one segment scientifically selected and developed into a cluster. From this master frame, households were selected to participate in the MICS4 main survey.

The listing and mapping teams were oriented in a 4 day training program in Kisumu, which included class room sessions and field practice. The training was facilitated by experts from KNBS and UNICEF. The listing and mapping team consisted of 12 teams; each having a lister and a mapper. The teams were led by a Supervisor, overseen by the District Statistical Officer (DSO) on a daily basis, who also attended the 4 days training programme. The county team was led by a county coordinator who was in charge of managing all the quality assurance activities of the teams in each county. One team was given two days to list an EA. The whole exercise of listing was also monitored by the UNICEF independent team that included a consultant.

## Selection of Households

Lists of households were prepared by the listing teams in the field for each enumeration area. The households were then sequentially numbered from 1 to n (the total number of households in each enumeration area) at the KNBS Office, where the selection of 25 households in each enumeration area was carried out using random systematic selection procedures.

## Calculation of Sample Weights

The Homa Bay County Multiple Indicator Cluster Survey sample is not self-weighting. Essentially, by allocating equal numbers of households to each of the regions, different sampling fractions were used in each region since the size of the regions varied. For this reason, sample weights were calculated and these were used in the subsequent analyses of the survey data.

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

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

The term  $f_{hi}$ , the sampling fraction for the i-th sample PSU in the h-th stratum, is the product of probabilities of selection at every stage in each sampling stratum:

$$f_{hi} = p1_{hi} \times p2_{hi} \times p3_{hi}$$

where  $p_{shi}$  is the probability of selection of the sampling unit at stage s for the i-th sample PSU in the h-th sampling stratum.

Since the estimated number of households in each enumeration area (PSU) in the sampling frame used for the first stage selection and the updated number of households in the enumeration area from the listing were different, individual sampling fractions for households in each sample enumeration area (cluster) were calculated. The sampling fractions for households in each enumeration area (cluster) therefore included the first stage probability of selection of the enumeration area in that particular sampling stratum and the second stage probability of selection of a household in the sample enumeration area (cluster).

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 cluster. Response rates in the Homa Bay County 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 are 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 design weights for the households were calculated by multiplying the above factors for each enumeration area. 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 dividing the aforementioned design weights by the average design weight at the national level. The average design weight is calculated as the sum of the design weights divided by the unweighted total). A similar standardization procedure was followed in obtaining standardized weights for the women's and under-5's questionnaires.

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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### Survey Director

A.K Kilele, Director General, KNBS 2011

### Technical Co-ordinators

James Gatungu, KNBS  
Macdonald Obudho, KNBS  
Robert Peter Ndugwa, UNICEF  
Data collection County coordinators  
Robert Buluma (Siaya County)  
Leah wambugu (Kisii County)  
David Muthami (Homabay County)  
James Munguti (Migori County)  
James Ng'ang'a (Kisumu County)  
Mary Wanyonyi (Nyamira County)

### Data collection Supervisors

Pauline Obunga  
Maurice OnyangoAringo  
Richard Abayo  
George O. N. Akuku  
Benjamin OmediNyatindo  
John OumaAsudi  
Paul M. Moherai  
Thomas Odhiambo  
Aloys M. Otenyo  
Samson Karumbo  
George M. Ogendi  
Raphael Maritim

### Research Assistants

#### *Migori County Team*

RoxventaA.Ongugo  
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Judith AdhiamboOdima  
Joshua O.Ochiel  
Stella M.Nabwire  
Dorothy SandeOwuor  
Yvonne A. Ochieng  
Maxine A. Adero  
Wanga Alfred Jabuya  
GatiL.Marwa  
PhanceJumalmbwaga

## **Household Listing And Mapping**

### *Listing Supervisors*

Peter OmoloOgodo  
DancanlanOchieng  
Robert Mbeche  
Nelson OwuorAron  
Morice O. Motegi  
Peter Mumbo  
Joakim O. Menya  
Joel MahindaSportaOgari  
Thomas OdhiamboOmburah  
Beryl Marindah

## **Listing Enumerators**

### *Migori County Team*

MwitaKepharmwikwabe  
AlbyAdhiamboOtieno  
KenedyO.Okuku  
OchiengWinnieAwuor  
Emily AdhiamboOwuor  
Gladys AtienoOgola  
Gordon O. Oyugi  
Reagan OkothOsodo  
MogesiRobiMaroa  
Elijah Kinyanjui

## **Data Entry And Analysis Team**

### *Data Entry Research Assistants*

BonfaceMachariaGichemi  
Caroline WanjuguMuthonjo  
Grace MakenaMukira  
Susan MuthoniMungai  
Lucy Rono  
Gertrude Otundo  
Agnes MwikaliMwango  
Sahal Mohammed  
AnastaciaKatuleKioko  
Esther K. Ondieki  
RoselyneNdukuMuthembwa  
Grace KaburaKang'ethe  
John OgodoOtieno  
MoremaNyangau  
Martin K. Mutuku  
SolomonMusili  
Modesta M. Omweri  
Mary WikanaMusonye  
Vivian Vera AwuorOnyango  
Rose M. Musili

Daniel Mutembei  
Esther W. Kinyanjui  
Redempta K. Muyuma  
Domittilla M. Kivuvo  
Anselim N. Okwoyo  
Margaret A. Nyamuok  
Eunice W. Maina  
Milcah W. Mwangangi

### **Supervisors**

Silas M. Mulwa  
Paul WaweruNgugi  
Bernard Dickson Obasi  
Cleaning And Validation  
Rajab Mbaruku  
Rogers M. Munywoki  
Data Analysts  
MutuaKakinyi  
CleophasKio

### **UNICEF Survey support team**

Robert Peter Ndugwa  
Godfrey Ndeng'e  
Violet Kinuthia  
Susan Govedi  
Isa Achoba  
John Ndegwa Wagai  
Joanne Bosworth

## Appendix C. Estimates of Sampling Errors

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The sample of respondents selected in the Migori County 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 the 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 the regions, and for urban and rural areas. Three of the selected indicators are based on households, 8 are based on household members, 13 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. Table SE.2 show the calculated sampling errors for selected domains.

**Table SE.1: Sampling errors**

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deff) and confidence intervals for selected indicators, Migori County, 2011										
	MICS Indicator	Value (r)	Standard error (se)	Coefficient of variation (se/r)	Design effect (deff)	Square root of design effect (deff)	Weighted count	Unweighted count	Confidence limits	
									r - 2se	r + 2se
<b>HOUSEHOLDS</b>										
	lodized salt consumption	0.912	0.008	0.009	0.869	0.932	1121	1115	0.896	0.928
<b>HOUSEHOLD MEMBERS</b>										
	Use of improved drinking water sources	0.317	0.031	0.099	5.139	2.267	5333	1123	0.254	0.380
	Use of improved sanitation facilities	0.100	0.015	0.153	2.904	1.704	5333	1123	0.070	0.131
	Secondary school net attendance ratio (adjusted)	0.184	0.027	0.148	2.477	1.574	477	501	0.130	0.239
	Child labour	0.488	0.019	0.040	2.792	1.671	1749	1852	0.449	0.527
	Prevalence of children with at least one parent dead	0.192	0.014	0.073	4.084	2.021	3025	3210	0.164	0.220
	School attendance of non-orphans	0.992	0.004	0.004	1.060	1.030	477	519	0.983	1.000
	Violent discipline	0.909	0.012	0.014	1.659	1.288	2362	886	0.884	0.934
<b>WOMEN</b>										
	Pregnant women	0.065	0.009	0.147	1.416	1.190	963	952	0.046	0.083
	Pregnant women sleeping under insecticide-treated nets (ITNs)	0.791	0.029	0.037	0.309	0.556	62	61	0.733	0.850
	Intermittent preventive treatment for malaria	0.327	0.033	0.100	1.473	1.214	284	304	0.262	0.393
	Early childbearing	0.495	0.040	0.080	1.176	1.085	184	187	0.415	0.574
	Contraceptive prevalence	0.430	0.026	0.061	1.915	1.384	682	690	0.378	0.482
	Antenatal care coverage - at least once by skilled personnel	0.871	0.027	0.030	2.176	1.475	326	348	0.818	0.924
	Antenatal care coverage - at least four times by any provider	0.498	0.037	0.074	1.872	1.368	326	348	0.424	0.571
	Skilled attendant at delivery	0.479	0.031	0.066	1.375	1.172	326	348	0.417	0.542
	Institutional deliveries	0.446	0.031	0.071	1.392	1.180	326	348	0.383	0.509
	Caesarean section	0.027	0.007	0.265	0.686	0.828	326	348	0.013	0.042
	Literacy rate among young women	0.826	0.025	0.031	1.707	1.307	385	378	0.775	0.877
	Marriage before age 18	0.566	0.016	0.029	0.834	0.913	761	761	0.533	0.599
	Polygyny	0.2898	0.02287	0.079	1.751	1.323	682	690	0.245	0.335

	MICS Indicator	Value (r)	Standard error (se)	Coefficient of variation (se/r)	Design effect (deff)	Square root of design effect (deff)	Weighted count	Unweighted count	Confidence limits	
									r - 2se	r + 2se
Comprehensive knowledge about HIV prevention among young people	9.2	0.553	0.041	0.074	2.579	1.606	385	378	0.470	0.635
Knowledge of mother- to-child transmission of HIV	9.3	0.459	0.012	0.026	0.541	0.735	963	952	0.435	0.483
Accepting attitudes towards people living with HIV	9.4	0.103	0.011	0.110	1.324	1.151	959	948	0.080	0.126
Women who have been tested for HIV and know the results	9.6	0.510	0.018	0.035	1.220	1.105	963	952	0.474	0.546
Sexually active young women who have been tested for HIV and know the results	9.7	0.427	0.028	0.065	0.988	0.994	309	312	0.371	0.483
Sex before age 15 among young women	9.11	0.320	0.035	0.111	2.175	1.475	385	378	0.249	0.391
<b>UNDER-5s</b>										
Underweight prevalence	2.1a	0.171	0.015	0.088	1.498	1.224	879	931	0.141	0.201
Stunting prevalence	2.2a	0.323	0.019	0.059	1.559	1.248	879	931	0.285	0.361
Wasting prevalence	2.3a	0.064	0.011	0.174	1.906	1.381	879	931	0.042	0.086
Exclusive breastfeeding under 6 months	2.6	0.356	0.041	0.116	0.597	0.773	73	81	0.273	0.439
Age-appropriate breastfeeding	2.14	0.564	0.029	0.052	1.200	1.095	322	348	0.506	0.623
Tuberculosis immunization coverage	-	0.966	0.017	0.018	1.444	1.202	152	165	0.931	1.000
Received polio immunization	-	0.875	0.031	0.035	1.429	1.195	152	164	0.813	0.937
Received DPT immunization	-	0.940	0.019	0.020	1.072	1.036	152	165	0.901	0.978
Received measles immunization	-	0.964	0.015	0.016	1.073	1.036	152	165	0.934	0.994
Diarrhoea in the previous 2 weeks	-	0.129	0.015	0.115	1.914	1.383	930	975	0.099	0.158
Illness with a cough in the previous 2 weeks	-	0.076	0.009	0.116	1.071	1.035	930	975	0.058	0.093
Fever in last two weeks	-	0.195	0.017	0.088	1.820	1.349	930	975	0.161	0.230
Oral rehydration therapy with continued feeding	3.8	0.668	0.049	0.074	1.343	1.159	120	123	0.569	0.766
Antibiotic treatment of suspected pneumonia	3.1	0.473	0.067	0.142	1.409	1.187	70	79	0.339	0.607
Children under age 5 sleeping under insecticide-treated nets (ITNs)	3.15	0.767	0.023	0.030	2.913	1.707	930	975	0.721	0.813
Anti-malarial treatment of children under age 5	3.18	0.431	0.030	0.069	0.723	0.850	182	203	0.372	0.490
Support for learning	6.1	0.329	0.040	0.122	3.037	1.743	408	417	0.248	0.409
Attendance to early childhood education	6.7	0.403	0.037	0.091	2.316	1.522	408	417	0.330	0.476
Birth registration	8.1	0.524	0.028	0.053	3.033	1.742	930	975	0.468	0.580

## Appendix D: Data Quality Tables

Table DQ.1: Age distribution of household population

Single-year age distribution of household population by sex, Nyanza Province, Kenya, 2011							
		Sex				Missing	
		Male		Female			
		Number	Per cent	Number	Per cent	Number	Per cent
Age	0	80	3.1	87	3.2	0	0.0
	1	61	2.3	95	3.5	0	0.0
	2	101	3.9	105	3.9	0	0.0
	3	106	4.0	115	4.2	0	0.0
	4	92	3.5	95	3.5	0	0.0
	5	129	4.9	132	4.9	0	0.0
	6	88	3.4	94	3.5	0	0.0
	7	103	3.9	96	3.5	0	0.0
	8	85	3.3	100	3.7	0	0.0
	9	86	3.3	79	2.9	0	0.0
	10	94	3.6	87	3.2	0	0.0
	11	56	2.1	77	2.8	0	0.0
	12	84	3.2	67	2.5	0	0.0
	13	82	3.1	72	2.7	0	0.0
	14	66	2.5	71	2.6	0	0.0
	15	61	2.3	44	1.6	0	0.0
	16	60	2.3	58	2.1	0	0.0
	17	57	2.2	60	2.2	0	0.0
	18	55	2.1	63	2.3	0	0.0
	19	49	1.9	38	1.4	0	0.0
	20	51	2.0	47	1.7	0	0.0
	21	45	1.7	29	1.1	0	0.0
	22	38	1.5	48	1.8	0	0.0
	23	29	1.1	46	1.7	0	0.0
	24	29	1.1	37	1.4	0	0.0
	25	42	1.6	62	2.3	0	0.0
	26	27	1.0	48	1.8	0	0.0
	27	35	1.3	35	1.3	0	0.0
	28	38	1.5	40	1.5	0	0.0
	29	31	1.2	27	1.0	0	0.0
	30	59	2.2	30	1.1	0	0.0
	31	20	0.8	18	0.7	0	0.0
	32	40	1.5	49	1.8	0	0.0
	33	28	1.1	24	0.9	0	0.0
	34	14	0.5	16	0.6	0	0.0
	35	37	1.4	42	1.5	0	0.0
	36	21	0.8	21	0.8	0	0.0
	37	15	0.6	14	0.5	0	0.0
	38	21	0.8	24	0.9	0	0.0
	39	16	0.6	18	0.7	0	0.0
	40	27	1.0	10	0.4	0	0.0

		Sex				Missing	
		Male		Female			
		Number	Per cent	Number	Per cent	Number	Per cent
Age	41	13	0.5	10	0.4	0	0.0
	42	14	0.5	24	0.9	0	0.0
	43	16	0.6	16	0.6	0	0.0
	44	12	0.5	8	0.3	0	0.0
	45	20	0.8	26	1.0	0	0.0
	46	21	0.8	17	0.6	0	0.0
	47	8	0.3	9	0.3	0	0.0
	48	14	0.5	18	0.7	0	0.0
	49	21	0.8	7	0.3	0	0.0
	50	17	0.6	17	0.6	0	0.0
	51	10	0.4	11	0.4	0	0.0
	52	9	0.4	15	0.5	0	0.0
	53	12	0.5	16	0.6	0	0.0
	54	10	0.4	15	0.6	0	0.0
	55	15	0.6	19	0.7	0	0.0
	56	14	0.5	11	0.4	0	0.0
	57	5	0.2	11	0.4	0	0.0
	58	9	0.3	9	0.3	0	0.0
	59	2	0.1	16	0.6	0	0.0
	60	8	0.3	17	0.6	0	0.0
	61	7	0.3	6	0.2	0	0.0
	62	12	0.5	5	0.2	0	0.0
	63	6	0.2	5	0.2	0	0.0
	64	4	0.2	2	0.1	0	0.0
	65	9	0.3	7	0.2	0	0.0
	66	0	0.0	9	0.3	0	0.0
	67	7	0.3	4	0.2	0	0.0
	68	5	0.2	2	0.1	0	0.0
	69	5	0.2	3	0.1	0	0.0
	70	7	0.3	7	0.3	0	0.0
	71	5	0.2	9	0.3	0	0.0
72	1	0.1	4	0.1	0	0.0	
73	7	0.3	7	0.3	0	0.0	
74	2	0.1	0	0.0	0	0.0	
75	6	0.2	3	0.1	0	0.0	
76	0	0.0	5	0.2	0	0.0	
77	1	0.0	2	0.1	0	0.0	
78	12	0.5	1	0.0	0	0.0	
79	1	0.0	4	0.2	0	0.0	
80+	11	0.4	15	0.5	0	0.0	
DK/missing	1	0.0	0	0.0	0	0.0	
<b>Total</b>		<b>2621</b>	<b>100.0</b>	<b>2711</b>	<b>100.0</b>	<b>0</b>	<b>0.0</b>

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

<b>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, Migori County, 2011</b>					
		Household population of women age 10-54	Interviewed women age 15-49		Percentage of eligible women interviewed (Completion rate)
		Number	Number	Per cent	
<b>Age</b>	10-14	374	.	.	.
	15-19	262	195	20.9	74.3
	20-24	207	178	19.1	86.0
	25-29	212	198	21.3	93.3
	30-34	137	125	13.4	91.2
	35-39	119	104	11.1	86.7
	40-44	68	63	6.8	92.7
	45-49	78	68	7.3	87.9
	50-54	74	.	.	.
<b>Total (15-49)</b>		<b>1083</b>	<b>930</b>	<b>100.0</b>	<b>85.9</b>

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

<b>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, Migori County, 2011</b>					
		Household population of children 0-7 years	Interviewed under-5 children		Percentage of eligible under-5s interviewed (Completion rate)
		Number	Number	Per cent	
<b>Age</b>	0	167	162	17.9	97.0
	1	156	149	16.4	95.4
	2	206	197	21.8	95.8
	3	221	217	24.0	98.6
	4	187	180	19.9	96.4
	5	262	.	.	.
	6	183	.	.	.
	7	199	.	.	.
<b>Total (0-4)</b>		<b>936</b>	<b>906</b>	<b>100.0</b>	<b>96.7</b>

**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, Migori County, 2011						
		Household population of women age 15-49 years		Interviewed women age 15-49 years		Per cent of eligible women interviewed (Completion rates)
		Number	Per cent	Number	Per cent	
<b>Area</b>	Rural	836	77.2	735	79.0	87.9
	Urban	247	22.8	195	21.0	79.0
<b>Household size</b>	1-3	813	75.1	146	15.7	86.5
	4-6	194	17.9	474	50.9	86.1
	7+	76	7.0	310	33.3	85.4
<b>Education of household head</b>	None	108	10.0	89	9.6	82.5
	Primary	708	65.4	620	66.6	87.5
	Secondary +	267	24.6	221	23.8	83.0
<b>Wealth index quintiles</b>	Poorest	250	23.1	221	23.7	88.3
	Second	170	15.7	146	15.7	86.0
	Middle	209	19.3	190	20.4	91.0
	Fourth	196	18.1	171	18.4	87.1
	Richest	258	23.9	203	21.8	78.5
<b>Total</b>		<b>1083</b>	<b>100.0</b>	<b>930</b>	<b>100.0</b>	<b>85.9</b>

**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, Migori County, 2011						
		Household population of under-5 children		Interviewed under-5 children		Per cent of eligible under-5s with completed under-5 questionnaires (Completion rates)
		Number	Per cent	Number	Per cent	
<b>Area</b>	Rural	808	86.3	783	86.5	97.0
	Urban	129	13.7	122	13.5	95.1
<b>Household size</b>	1-3	93	10.0	58	6.4	88.7
	4-6	544	58.0	511	56.4	97.8
	7+	299	32.0	337	37.2	96.5
<b>Education of household head</b>	None	83	8.9	82	9.1	99.0
	Primary	659	70.4	642	70.9	97.4
	Secondary +	194	20.8	181	20.0	93.3
<b>Wealth index quintiles</b>	Poorest	282	30.1	278	30.7	98.7
	Second	158	16.8	148	16.4	93.9
	Middle	200	21.3	193	21.4	96.9
	Fourth	151	16.2	147	16.2	97.0
	Richest	146	15.6	139	15.4	95.5
<b>Total</b>		<b>936</b>	<b>100.0</b>	<b>906</b>	<b>100.0</b>	<b>96.7</b>

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

<b>Percentage of observations that are missing information for selected questions and indicators, Migori County, 2011</b>		
Questionnaire and Subject	Per cent with missing/incomplete information*	Number of cases
Age	0.0	5536
<b>Household</b>		
Salt testing	0.4	1128
Starting time of interview	0.9	1128
Ending time of interview	0.7	1128
<b>Women</b>		
Woman's date of birth: Only month	14.4	963
Woman's date of birth: Both month and year	0.1	963
Date of first birth: Only month	0.4	796
Date of first birth: Both month and year	0.0	796
Completed years since first birth	0.0	796
Date of last birth: Only month	0.4	796
Date of last birth: Both month and year	0.0	796
Date of first marriage/union: Only month	3.3	799
Date of first marriage/union: Both month and year	2.3	799
Age at first marriage/union	0.9	799
Age at first intercourse	0.0	324
Time since last intercourse	0.0	324
Starting time of interview	0.2	963
Ending time of interview	0.3	963
<b>Under-5</b>		
Date of birth: Only month	0.3	930
Date of birth: Both month and year	0.0	930
Anthropometric measurements: Weight	3.8	930
Anthropometric measurements: Height	4.1	930
Anthropometric measurements: Both weight and height	3.8	930
Starting time of interview	0.5	930
Ending time of interview	0.6	930

**Table DQ.7: Completeness of information for anthropometric indicators**

Distribution of children under 5 by completeness of information for anthropometric indicators, Migori County, 2011									
		Valid weight and date of birth	Reason for exclusion from analysis				Total	Per cent of children excluded from analysis	Number of children under 5
			Weight not measured	Incomplete date of birth	Weight not measured, incomplete date of birth	Flagged cases (outliers)			
Weight by age	<6 months	95.1	0.0	0.0	0.0	0.0	100.0	0.0	81
	6-11 months	96.1	1.0	0.0	0.0	0.0	100.0	1.0	102
	12-23 months	97.0	0.6	0.0	0.0	0.0	100.0	0.6	165
	24-35 months	98.1	0.5	0.0	0.0	0.0	100.0	0.5	210
	36-47 months	96.2	0.4	0.9	0.0	0.0	100.0	1.3	234
	48-59 months	94.5	0.0	0.0	0.0	0.0	100.0	0.0	183
Total		<b>96.3</b>	<b>0.4</b>	<b>0.2</b>	<b>0.0</b>	<b>0.0</b>	<b>100.0</b>	<b>0.6</b>	<b>975</b>

**Table DQ.7: Completeness of information for anthropometric indicators**

Distribution of children under 5 by completeness of information for anthropometric indicators, Migori County, 2011									
		Valid height and date of birth	Reason for exclusion from analysis				Total	Per cent of children excluded from analysis	Number of children under 5
			Height not measured	Incomplete date of birth	Height not measured, incomplete date of birth	Flagged cases (outliers)			
Height by age	<6 months	92.6	2.5	0.0	0.0	0.0	100.0	2.5	81
	6-11 months	97.1	0.0	0.0	0.0	0.0	100.0	0.0	102
	12-23 months	97.6	0.0	0.0	0.0	0.0	100.0	0.0	165
	24-35 months	98.6	0.0	0.0	0.0	0.0	100.0	0.0	210
	36-47 months	96.6	0.0	0.9	0.0	0.0	100.0	0.9	234
	48-59 months	94.5	0.0	0.0	0.0	0.0	100.0	0.0	183
Total		<b>96.5</b>	<b>0.2</b>	<b>0.2</b>	<b>0.0</b>	<b>0.0</b>	<b>100.0</b>	<b>0.4</b>	<b>975</b>

**Table DQ.7: Completeness of information for anthropometric indicators**

		Reason for exclusion from analysis										Per cent of children excluded from analysis	Number of children under 5	
		Valid weight and height	Weight not measured	Height not measured	Incomplete date of birth	Weight not measured, incomplete date of birth	Height not measured, incomplete date of birth	Weight and height not measured, incomplete date of birth	Flagged cases (outliers)	Total				
<b>Weight by height</b>	<6 months	92.6	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	2.5	81
	6-11 months	96.1	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	1.0	102
	12-23 months	97.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.6	165
	24-35 months	98.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.5	210
	36-47 months	96.2	0.4	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	100.0	1.3	234
48-59 months	94.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	183	
<b>Total</b>		<b>96.1</b>	<b>0.4</b>	<b>0.2</b>	<b>0.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>100.0</b>	<b>0.8</b>	<b>975</b>

**Table DQ.8: Heaping in anthropometric measurements**

Distribution of weight and height/length measurements by digits reported for decimals, Migori County, 2011					
		Weight		Height	
		Number	Per cent	Number	Per cent
<b>Digits</b>	0	110	11.7	251	26.6
	1	78	8.3	61	6.5
	2	93	9.9	86	9.1
	3	92	9.8	55	5.8
	4	100	10.6	48	5.1
	5	104	11.1	246	26.0
	6	88	9.4	64	6.8
	7	100	10.6	59	6.2
	8	93	9.9	43	4.6
	9	83	8.8	32	3.4
	0 or 5	214	22.7	497	52.6
<b>Total</b>		<b>941</b>	<b>100.0</b>	<b>945</b>	<b>100.0</b>

**Table DQ.9: 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, Migori County, 2011								
		Percentage of bednets observed by interviewer	Total number of bednets	Observation of places for handwashing: Observed	Place for handwashing not in dwelling	No permission to see	Total	Number of households interviewed
<b>Area</b>	Rural	74.4	2176	3.2	96.5	0.1	100.0	954
	Urban	69.8	329	5.9	93.5	0.6	100.0	169
<b>Wealth index quintiles</b>	Poorest	74.3	653	0.6	99.0	0.0	100.0	313
	Second	74.4	426	3.7	96.3	0.0	100.0	191
	Middle	74.4	537	5.7	94.3	0.0	100.0	230
	Fourth	80.4	465	2.4	97.6	0.0	100.0	211
	Richest	63.3	424	7.9	91.0	1.1	100.0	178
<b>Total</b>		<b>73.8</b>	<b>2505</b>	<b>3.7</b>	<b>96.1</b>	<b>0.2</b>	<b>100.0</b>	<b>1123</b>

**Table DQ.10: Observation of women's health cards**

Per cent 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, Migori County, 2011								
		Woman does not have health card	Woman has health card		Missing/DK	Total	Per cent 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)				
Area	Rural	22.9	56.8	18.7	1.6	100.0	75.2	315
	Urban	18.2	57.6	18.2	6.1	100.0	76.0	33
Wealth index quintiles	Poorest	23.5	58.0	17.6	0.8	100.0	76.7	119
	Second	10.0	66.7	20.0	3.3	100.0	76.9	60
	Middle	34.2	51.3	14.5	0.0	100.0	78.0	76
	Fourth	21.8	56.4	20.0	1.8	100.0	73.8	55
	Richest	15.8	50.0	26.3	7.9	100.0	65.5	38
<b>Total</b>		<b>22.4</b>	<b>56.9</b>	<b>18.7</b>	<b>2.0</b>	<b>100.0</b>	<b>75.3</b>	<b>348</b>

**Table DQ.11: Observation of under-5s birth certificates**

Percentage distribution of children under 5 by presence of birth certificates, and percentage of birth calendar seen, Migori County, 2011								
		Child does not have birth certificate	Child has birth certificate		Missing/DK	Total	Per cent of birth certificates seen by the interviewer [1]/[1+2]*100	Number of children under age 5
			Seen by the interviewer [1]	Not seen by the interviewer [2]				
Area	Rural	73.0	11.8	14.5	0.6	100.0	44.8	875
	Urban	73.0	5.0	22.0	0.0	100.0	18.5	100
Child's age	0	82.2	8.9	8.9	0.0	100.0	50.0	180
	1	73.3	12.7	13.3	0.6	100.0	48.8	165
	2	71.1	10.4	17.1	0.9	100.0	37.9	211
	3	71.1	9.9	18.1	0.9	100.0	35.4	232
	4	68.4	13.9	17.6	0.0	100.0	44.1	187
<b>Total</b>		<b>73.0</b>	<b>11.1</b>	<b>15.3</b>	<b>0.5</b>	<b>100.0</b>	<b>42.0</b>	<b>975</b>

**Table DQ.12: Observation of vaccination cards**

Percentage distribution of children under 5 by presence of a vaccination card, and the percentage of vaccination cards seen by the interviewers, Migori County, 2011								
		Child has vaccination card			Missing/DK	Total	Per cent of vaccination cards seen by the interviewer (1)/(1+2)*100	Number of children under age 5
		Has, Seen by the interviewer (1)	Has, not seen by the interviewer (2)	Child has no vaccination card				
Area	Rural	65.7	20.3	13.8	0.1	100.0	76.4	875
	Urban	53.0	43.0	4.0	0.0	100.0	55.2	100
Child's age	0	77.2	7.8	14.4	0.6	100.0	90.8	180
	1	81.8	11.5	6.7	0.0	100.0	87.7	165
	2	64.9	25.6	9.5	0.0	100.0	71.7	211
	3	49.6	34.1	16.4	0.0	100.0	59.3	232
	4	54.5	29.4	16.0	0.0	100.0	65.0	187
<b>Total</b>		<b>64.4</b>	<b>22.7</b>	<b>12.8</b>	<b>0.1</b>	<b>100.0</b>	<b>74.0</b>	<b>975</b>

**Table DQ.13: 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, Migori County, 2011							
		Mother in the household	Mother not in the household			Total	Number of children under 5
		Mother interviewed	Father interviewed	Other adult female interviewed	Other adult male interviewed		
Age	0	100.0	0.0	0.0	0.0	100.0	167
	1	97.2	0.0	2.8	0.0	100.0	156
	2	92.7	0.0	7.3	0.0	100.0	206
	3	86.5	0.4	13.1	0.0	100.0	221
	4	86.4	1.1	12.0	0.5	100.0	187
Total		92.0	0.3	7.5	0.1	100.0	936

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

Percentage of households with at least two children age 2-14 years where correct selection of one child for the child discipline module was performed, Migori County, 2011			
		Per cent of households where correct selection was performed	Number of households with 2 or more children age 2-14 years
Area	Rural	97.9	624
	Urban	93.2	73
Number of households by number of children 2-14	2	99.1	217
	3	98.0	205
	4	95.6	275
Total		97.4	697

**Table DQ.15: School attendance by single age**

Age at beginning of school year		Distribution of household population age 5-24 by educational level and educational level and grade attended in the current (or most recent) school year, Migori County, 2011											Number of household members					
		Not attending school	Preschool/ kindergarten	Primary								Post primary		Higher	Non-standard curriculum	DK	Total	
				1	2	3	4	5	6	7	8	2						
5	10.1	79.4	6.5	1.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	100.0	262
6	2.8	64.7	23.1	5.0	1.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	100.0	183
7	4.0	42.2	28.3	16.5	5.1	1.4	0.3	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	1.7	100.0	199
8	0.9	17.8	32.9	28.4	14.6	2.2	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	100.0	186
9	0.3	11.6	9.6	33.7	26.6	14.8	2.6	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.8	100.0	164
10	0.4	5.5	7.8	17.7	28.1	25.5	9.2	4.7	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	182
11	0.0	0.0	5.7	13.4	26.7	23.0	17.8	12.5	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	133
12	1.4	0.6	1.0	5.2	14.3	26.2	22.9	17.4	8.2	1.9	0.0	0.0	0.0	0.0	0.0	0.0	100.0	151
13	1.0	0.0	1.1	2.7	4.7	13.6	21.4	22.6	20.4	9.3	0.0	0.0	0.0	0.0	0.0	1.4	100.0	154
14	3.5	0.0	1.0	1.4	3.3	9.1	22.7	13.6	24.7	15.1	0.0	0.0	5.4	0.0	0.0	0.0	100.0	137
15	6.5	0.0	0.0	0.0	1.0	6.4	8.7	14.1	30.2	18.8	0.0	0.0	14.3	0.0	0.0	0.0	100.0	105
16	12.7	0.0	0.7	0.0	0.0	2.5	7.0	12.4	23.4	14.4	0.0	0.0	26.6	0.0	0.3	0.0	100.0	118
17	33.2	0.0	1.3	0.0	0.0	2.2	1.5	3.3	15.3	13.7	1.2	0.0	28.4	0.0	0.0	0.0	100.0	116
18	42.4	0.0	1.5	0.0	0.0	1.0	0.8	2.8	8.0	10.6	0.0	0.0	33.0	0.0	0.0	0.0	100.0	118
19	43.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5	9.7	0.0	0.0	35.3	1.0	1.1	3.3	100.0	87
20	70.6	0.0	1.9	0.0	0.0	0.0	0.0	1.5	3.1	2.9	0.0	0.0	19.5	0.4	0.0	0.0	100.0	98
21	64.9	0.0	0.0	0.0	0.0	0.0	1.0	1.7	0.0	2.0	0.0	0.0	28.5	1.8	0.0	0.0	100.0	74
22	82.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	3.6	0.0	0.0	11.2	0.0	0.4	0.0	100.0	86
23	84.8	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	2.3	0.0	0.0	6.2	3.5	0.0	1.5	100.0	75
24	85.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.3	1.9	0.0	1.0	100.0	66

**Table DQ.16: 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, Migori County, 2011											
		Children Ever Born			Children Living			Children Deceased			Number of women
		Number of sons ever born	Number of daughters ever born	Sex ratio	Number of sons living	Number of daughters living	Sex ratio	Number of deceased sons	Number of deceased daughters	Sex ratio	
Age	15-19	41	68	0.60	38	65	0.58	3	3	1.00	191
	20-24	181	201	0.90	162	184	0.88	19	17	1.12	187
	25-29	365	381	0.96	318	345	0.92	47	36	1.31	207
	30-34	326	265	1.23	269	234	1.15	57	31	1.84	122
	35-39	334	350	0.95	272	290	0.94	62	60	1.03	110
	40-44	219	202	1.08	177	170	1.04	42	32	1.31	69
	45-49	255	230	1.11	194	184	1.05	61	46	1.33	66
Total		1721	1697	0.98	1430	1472	0.94	291	225	1.28	952

## Additional Tables

**Table NU.A1. Feeding patterns by age**

Per cent distribution of children age 0-23 months by feeding pattern, Migori County, 2011									
		Infant feeding patterns						Total	Number of children
		Exclusively breastfed	Breastfed and plain water only	Breastfed and non-milk liquids	Breastfed and other milk / formula	Breastfed and complementary foods	Weaned (not breastfed)		
Age	0-1	75.4	11.3	0.0	0.0	0.0	13.3	100.0	9
	2-3	52.0	26.7	10.7	0.0	0.0	10.7	100.0	8
	4-5	58.9	11.8	4.9	24.4	0.0	.0	100.0	13
	6-7	23.4	11.7	0.0	41.5	11.6	11.7	100.0	8
	8-9	10.1	38.3	15.7	25.3	10.6	0.0	100.0	18
	10-11	20.7	3.9	4.9	43.1	27.4	0.0	100.0	16
	12-13	8.2	4.3	38.9	16.9	31.6	0.0	100.0	10
	14-15	14.8	8.9	0.0	24.3	52.0	0.0	100.0	16
	16-17	0.0	0.0	17.6	11.1	71.4	0.0	100.0	18
	18-19	5.0	0.0	0.0	6.9	78.8	9.2	100.0	17
	20-21	0.0	0.0	6.2	13.5	80.3	0.0	100.0	16
	22-23	0.0	0.0	13.7	8.4	73.6	4.3	100.0	20
	24-25	0.0	0.0	6.8	7.2	69.6	16.4	100.0	13
	26-27	0.0	0.0	8.0	0.0	85.3	6.7	100.0	11
	28-29	0.0	0.0	0.0	0.0	71.9	28.1	100.0	9
30-31	0.0	0.0	0.0	0.0	69.3	30.7	100.0	17	
32-33	0.0	0.0	0.0	0.0	78.2	21.8	100.0	8	
34-35	0.0	0.0	0.0	0.0	66.6	33.4	100.0	13	

## Appendix E. MICS4 Indicators: Numerators and Denominators

MICS4 INDICATOR		Module <sup>10</sup>	Numerator	Denominator	MDG <sup>11</sup>
<b>1. MORTALITY</b>					
1.1	Under-five mortality rate	CM	Probability of dying by exact age 5 years		MDG 4.1
1.2	Infant mortality rate	CM	Probability of dying by exact age 1 year		MDG 4.2
<b>2. NUTRITION</b>					
2.1a 2.1b	Underweight prevalence	AN	Number of children under age 5 who (a) fall below minus two standard deviations (moderate and severe) (b) fall below minus three standard deviations (severe) from the median weight for age of the WHO standard	Total number of children under age 5	MDG 1.8
2.2a 2.2b	Stunting prevalence	AN	Number of children under age 5 who (a) fall below minus two standard deviations (moderate and severe) (b) fall below minus three standard deviations (severe) from the median height for age of the WHO standard	Total number of children under age 5	
2.3a 2.3b	Wasting prevalence	AN	Number of children under age 5 who (a) fall below minus two standard deviations (moderate and severe) (b) fall below minus three standard deviations (severe) from the median weight for height of the WHO standard	Total number of children under age 5	
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>12</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	
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	

<sup>10</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>11</sup> MDG indicators as of February 2010

<sup>12</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>10</sup>	Numerator	Denominator	MDG <sup>11</sup>
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>13</sup> or more, according to breastfeeding status, during the previous day	Total number of children age 6-23 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	
2.16	Iodized salt consumption	SI	Number of households with salt testing 15 parts per million or more of iodide/iodate	Total number of households in which salt was tested or with no salt	
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	
2.19	Infants weighed at birth	MN	Number of last live births in the 2 years preceding the survey who were weighed at birth	Total number of last live births in the 2 years preceding the survey	
<b>3. CHILD HEALTH</b>					
3.1	Tuberculosis immunization coverage <sup>14</sup>	IM	Number of children age 12-23 months who received BCG vaccine before their first birthday	Total number of children age 12-23 months	
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
3.6	Yellow fever immunization coverage	IM	Number of children age 12-23 months who received yellow fever vaccine before their first birthday	Total number of children age 12-23 months	

13 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

14 Age groups used in indicators 3.1 to 3.6 are applicable when basic immunization schedules are used (with measles administered at 9 months). For the calculation of indicators when different schedules are used, see MICS4 manual for detailed descriptions

MICS4 INDICATOR		Module <sup>10</sup>	Numerator	Denominator	MDG <sup>11</sup>
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>15</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	
3.10	Antibiotic treatment of suspected pneumonia	CA	Number of children under age 5 with suspected pneumonia in the previous 2 weeks who received antibiotics	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>16</sup>	TN	Number of households with at least one insecticide treated net (ITN)	Total number of households	
3.14	Children under age 5 sleeping under any type of mosquito net	TN	Number of children under age 5 who slept under any type of mosquito net the previous night	Total number of children under age 5	
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
3.18	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

<sup>15</sup> See MICS4 manual for a detailed description

<sup>16</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 insecticide within the past 12 months

MICS4 INDICATOR		Module <sup>10</sup>	Numerator	Denominator	MDG <sup>11</sup>
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	
3.21	Place for handwashing	HW	Number of households with a designated place for hand washing where water and soap are present	Total number of households	
3.22	Availability of soap	HW	Number of households with soap anywhere in the dwelling	Total number of households	
<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 facilities	WS	Number of household members using improved sanitation facilities	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	
<b>5. REPRODUCTIVE HEALTH</b>					
5.1	Adolescent birth rate	CM	Age-specific fertility rate for women age 15-19 years	MDG 5.4	
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>17</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>17</sup> See MICS4 manual for a detailed description

MICS4 INDICATOR		Module <sup>10</sup>	Numerator	Denominator	MDG <sup>11</sup>
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
5.7	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	
<b>6. CHILD DEVELOPMENT</b>					
6.1	Support for learning	CE	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	CE	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	CE	Number of children under age 5 who have three or more children's books	Total number of children under age 5	
6.5	Inadequate care	CE	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	CE	Number of children age 36-59 months who are developmentally on track in literacy-numeracy, physical, social-emotional, and learning domains	Total number of children age 36-59 months	
6.7	Attendance to early childhood education	CE	Number of children age 36-59 months who are attending an early childhood education programme	Total number of children age 36-59 months	

MICS4 INDICATOR		Module <sup>10</sup>	Numerator	Denominator	MDG <sup>11</sup>
<b>7. LITERACY AND EDUCATION</b>					
7.1	Literacy rate among young women	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
7.3	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	
7.7	Primary completion rate	ED	Number of children (of any age) 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)	
7.9	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>					
8.1	Birth registration	BR	Number of children under age 5 whose births are reported registered	Total number of children under age 5	
8.2	Child labour	CL	Number of children age 5-14 years who are involved in child labour	Total number of children age 5-14 years	
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	

MICS4 INDICATOR		Module <sup>10</sup>	Numerator	Denominator	MDG <sup>11</sup>
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	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 female genital mutilation/cutting (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 female genital mutilation/cutting (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 female genital mutilation/cutting (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	
<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>18</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	

18 Using condoms and limiting sex to one faithful, uninfected partner

19 Transmission during pregnancy, during delivery, and by breastfeeding

MICS4 INDICATOR		Module <sup>10</sup>	Numerator	Denominator	MDG <sup>11</sup>
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>12</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>19</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>20</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	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	
9.10	Young women who have never had sex	SB	Number of never married women age 15-24 years who have never had sex	Total number of never married women age 15-24 years	
9.11	Sex before age 15 among young women	SB	Number of women age 15-24 years who have had sexual intercourse before age 15	Total number of women age 15-24 years	
9.12	Age-mixing among sexual partners	SB	Number of women age 15-24 years who had sex in the 12 months preceding the survey with a partner who was 10 or more years older than they were	Total number of women age 15-24 years who have had sex in the 12 months preceding the survey	

<sup>20</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

MICS4 INDICATOR		Module <sup>10</sup>	Numerator	Denominator	MDG <sup>11</sup>
9.13	Sex with multiple partners	SB	Number of women age 15-49 years who have had sexual intercourse with more than one partner in the 12 months preceding the survey	Total number of women age 15-49 years	
9.15	Sex with non-regular partners	SB	Number of sexually active women age 15-24 years who have had sex with a non-marital, non-cohabiting partner in the 12 months preceding the survey	Total number of women age 15-24 years who have had sex in the 12 months preceding the survey	
9.16	Condom use with non-regular partners	SB	Number of women age 15-24 years reporting the use of a condom during sexual intercourse with their last non-marital, non-cohabiting sex partner in the 12 months preceding the survey	Total number of women age 15-24 years who had a non-marital, non-cohabiting partner in the 12 months preceding the survey	MDG 6.2
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 at least one parent dead	HL	Number of children age 0-17 years with at least one dead parent	Total number of children age 0-17 years	

## Appendix F: Questionnaires

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- a) Household Questionnaire
- b) Individual Women's Questionnaire
- c) Children under 5 years Questionnaire

HOUSEHOLD INFORMATION PANEL		HH
HH-A. Province Name & Code: _____	HH-B. County Name & Code: _____	
HH-C. District Name & Code: _____		
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.....2 Rural.....1		
HH8. Name of head of household: _____		
<i>After all questionnaires for the household have been completed, fill in the following information:</i>		
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 No: _____	
	HH11. Total number of household members:	
HH12. No of women age 15-49 years: _____	HH13. No of women age 15-49 years forms completed: _____	
HH14. No of children under age 5: _____	HH15. No of under-5 questionnaires completed: _____	
Interviewer/editor/supervisor notes: <i>Use this space to record notes about the interview with this household, such as call-back times, incomplete individual interview forms, number of attempts to re-visit, etc.</i>		
HH16. Field edited by (Name and number): Name: _____	HH17. Data entry clerk(Name and number): Name: _____	

## INTRODUCTION

WE ARE FROM KENYA NATIONAL BUREAU OF STATISTICS (KNBS). WE ARE CONDUCTING A FAMILY HEALTH AND EDUCATION SURVEY. I WOULD LIKE TO TALK TO YOU ABOUT THIS. ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND YOUR ANSWERS WILL NEVER BE IDENTIFIED. MAY I START NOW?

*IF PERMISSION IS GIVEN, BEGIN THE INTERVIEW.*



HL1. Line no	HL2. Name	HL3. WHAT IS THE RELATIONSHIP OF (name) TO THE HEAD OF THE HOUSEHOLD?	HL4. IS (name) MALE OR FEMALE?		HL5. HOW OLD IS (name)? Probe: HOW OLD WAS (name) ON HIS/HER LAST BIRTHDAY? Record age in completed years	ELIGIBILITY FOR WOMEN'S INTERVIEW	MOTHER OR CARETAKER OF CHILD 5-14	ELIGIBILITY FOR UNDER-5 INTERVIEW	Ask if age 18-59 years	Ask if age 0-17 years													
			HL6. Circle Line no. if woman is age 15-49	HL7. For each child age 5-14: WHO IS THE MOTHER OR PRIMARY CARETAKER OF THIS CHILD? Record line no. of mother/ caretaker						HL8. For each child under 5: WHO IS THE MOTHER OR PRIMARY CARETAKER OF THIS CHILD? Record line no. of mother/ caretaker	HL9. IS (name's) NATURAL MOTHER ALIVE? 1 Yes 2 No 8 DK →HL11	HL10. If alive: DOES (name) NATURAL MOTHER LIVE IN THIS HOUSEHOLD? Record line no. 00 for 'no'	HL10A. If mother does not live in household: HAS (name's) MOTHER BEEN VERY SICK FOR AT LEAST 3 MONTHS IN THE PAST 12 MONTHS?	HL11. IS (name's) NATURAL FATHER ALIVE? 1 Yes 2 No 8 DK → Next Line	HL12. If alive: DOES (name) NATURAL FATHER LIVE IN THIS HOUSEHOLD? Record line no. of father or 00 for 'no'	HL12A. If father does not live in household: HAS (name's) FATHER BEEN VERY SICK FOR AT LEAST 3 MONTHS IN THE PAST 12 MONTHS?							
Line	Name	Relation	M	F	Age	15-49	Mother	Mother	Y	N	D	K	Mother	Y	N	D	K	Father	Y	N	D	K	
11			1	2		11			128					128					128				
12			1	2		12			128					128					128				
13			1	2		13			128					128					128				
14			1	2		14			128					128					128				
15			1	2		15			128					128					128				

ARE THERE ANY OTHER PERSONS LIVING HERE – EVEN IF THEY ARE NOT MEMBERS OF YOUR FAMILY OR DO NOT HAVE PARENTS LIVING IN THIS HOUSEHOLD? INCLUDING CHILDREN AT WORK OR AT SCHOOL? If yes, insert name and complete form.

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 the 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 the 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

02 = Wife or Husband

03 = Son or Daughter

04 = Son or Daughter In-Law

05 = Grandchild

06 = Parent

07 = Parent-In-Law

08 = Brother or Sister

09 = Brother or Sister-In-Law

10 = Uncle/Aunt

11 = Niece/Nephew

12 = Other Relative

14 = Adopted/Foster/Stepchild

15 = Not Related

98 = Don't Know

EDUCATION										ED															
For household members age 5 and above					For household members age 5-24 years																				
ED1. Line no.	ED1A. Name and age	ED2. HAS (name) EVER ATTENDED SCHOOL, PRESCHOOL OR ANY NON-FORMAL EDUCATION? 1 Yes-->ED3 2 No-->Next Line	ED3. WHAT IS THE HIGHEST LEVEL OF SCHOOL (name) ATTENDED?  WHAT IS THE HIGHEST GRADE (STANDARD/FORM/CLASS) (name) COMPLETED AT THIS LEVEL?  Level: 0 Preschool 1 Primary 2 Post-Primary/Vocational 3 Secondary, A level 4 Higher 6 Non-formal education 8 DK  Grade/Standard/Form/Class: 98 DK If Level=0 or 6, leave Grade blank	ED4. DURING THE CURRENT (2011) SCHOOL YEAR, DID (name) ATTEND PRESCHOOL, OR NON-FORMAL EDUCATION AT ANY TIME? 1 Yes 2 No-->ED7	ED5. SINCE LAST (day of the week), HOW MANY DAYS DID (name) ATTEND SCHOOL?  Insert number of days. Exclude the day of interview.  8 DK 9 School closed	ED6. DURING THIS SCHOOL YEAR, WHICH LEVEL AND GRADE (STANDARD/FORM/CLASS) IS (name) ATTENDING?  Level: 0 Preschool 1 Primary 2 Post-Primary/Vocational 3 Secondary, A level 4 Higher 6 Non-formal education 8 DK  Grade/Standard/Form/Class: 98 DK If Level=0 or 6, leave Grade blank	ED7. DID (name) ATTEND SCHOOL, OR NON-FORMAL EDUCATION AT ANY TIME DURING THE PREVIOUS SCHOOL YEAR, THAT IS 2010?  1 Yes 2 No-->Next Line 8 DK-->Next Line blank	ED8. DURING THE PREVIOUS SCHOOL YEAR, WHICH LEVEL AND GRADE (STANDARD/FORM/CLASS) DID (name) ATTEND?  Level: 0 Preschool 1 Primary 2 Post-Primary/Vocational 3 Secondary, A level 4 Higher 6 Non-formal education 8 DK  Grade/Standard/Form/Class: 98 DK If Level=0 or 6, leave Grade blank	Line	Name	Age	Yes	No	Level	Grade	Yes	No	Days	Level	Grade	Y	N	DK	Level	Grade
01		1	2-->Next Line	0 1 2 3 4 6 8	1	2	0 1 2 3 4 6 8	1	2	8	0 1 2 3 4 6 8														
02		1	2-->Next Line	0 1 2 3 4 6 8	1	2	0 1 2 3 4 6 8	1	2	8	0 1 2 3 4 6 8														
03		1	2-->Next Line	0 1 2 3 4 6 8	1	2	0 1 2 3 4 6 8	1	2	8	0 1 2 3 4 6 8														
04		1	2-->Next Line	0 1 2 3 4 6 8	1	2	0 1 2 3 4 6 8	1	2	8	0 1 2 3 4 6 8														
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06		1	2-->Next Line	0 1 2 3 4 6 8	1	2	0 1 2 3 4 6 8	1	2	8	0 1 2 3 4 6 8														
07		1	2-->Next Line	0 1 2 3 4 6 8	1	2	0 1 2 3 4 6 8	1	2	8	0 1 2 3 4 6 8														
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11		1	2-->Next Line	0 1 2 3 4 6 8	1	2	0 1 2 3 4 6 8	1	2	8	0 1 2 3 4 6 8														
12		1	2-->Next Line	0 1 2 3 4 6 8	1	2	0 1 2 3 4 6 8	1	2	8	0 1 2 3 4 6 8														
13		1	2-->Next Line	0 1 2 3 4 6 8	1	2	0 1 2 3 4 6 8	1	2	8	0 1 2 3 4 6 8														
14		1	2-->Next Line	0 1 2 3 4 6 8	1	2	0 1 2 3 4 6 8	1	2	8	0 1 2 3 4 6 8														
15		1	2-->Next Line	0 1 2 3 4 6 8	1	2	0 1 2 3 4 6 8	1	2	8	0 1 2 3 4 6 8														

WATER AND SANITATION		WS
WS1. WHAT IS THE MAIN SOURCE OF DRINKING WATER FOR MEMBERS OF YOUR HOUSEHOLD?	Piped water	
	Piped into dwelling .....	11 —►WS5
	Piped into compound, yard or plot.....	12 —►WS5
	Piped to neighbor .....	
	Piped to water kiosk .....	
	Public tap/standpipe.....	
	Tubewell/Borehole.....	
	Dug well	
	Protected well.....	
	Unprotected well.....	
	Water from spring	
	Protected spring .....	—►WS3
	Unprotected spring.....	
	Rainwater collection .....	
Tanker-truck.....		
Cart with small tank/drum .....		
Surface water (river, stream, dam, lake, pond, canal, irrigation channel).....		
Bottled water.....		
Other ( <i>specify</i> ) .....	96 —►WS3	
WS2. WHAT IS THE MAIN SOURCE OF WATER USED BY YOUR HOUSEHOLD FOR OTHER PURPOSES SUCH AS COOKING AND HANDWASHING?	Piped water	
	Piped into dwelling .....	11 —►WS5
	Piped into yard or plot .....	12 —►WS5
	Piped to neighbor .....	
	Piped to water kiosk .....	
	Public tap/standpipe.....	
	Tubewell/Borehole.....	
	Dug well	
	Protected well.....	
	Unprotected well.....	
	Water from spring	
	Protected spring .....	
	Unprotected spring.....	
	Rainwater collection .....	
Tanker-truck.....		
Cart with small tank/drum .....		
Surface water (river, stream, dam, lake, pond, canal, irrigation channel).....		
Other ( <i>specify</i> ) .....	96	
WS3. HOW LONG DOES IT TAKE TO GO THERE, GET WATER, AND COME BACK?	No. of minutes .....	— — —
	Water on premises .....	995 —►WS5
	DK .....	998
WS4. WHO USUALLY GOES TO THIS SOURCE TO COLLECT THE WATER FOR YOUR HOUSEHOLD?  <i>Probe:</i> IS THIS PERSON UNDER AGE 15? WHAT SEX?	Adult woman (15+ years).....	1
	Adult man (15+ years) .....	2
	Female child (under 15).....	3
	Male child (under 15).....	4
	DK .....	8

WS5. DO YOU TREAT YOUR WATER IN ANY WAY TO MAKE IT SAFER TO DRINK?	Yes ..... 1 No ..... 2 DK ..... 8	2—►WS7 8—►WS7
WS6. WHAT DO YOU USUALLY DO TO THE WATER TO MAKE IT SAFER TO DRINK?  <i>Probe:</i> ANYTHING ELSE?  <i>Record all items mentioned.</i>	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  Other (a) ..... X DK ..... Z	
WS7. WHAT KIND OF TOILET FACILITY DO MEMBERS OF YOUR HOUSEHOLD USUALLY USE?  <i>If “flush” or “pour flush”, probe:</i> WHERE DOES IT FLUSH TO?  <i>If necessary, ask permission to observe the facility.</i>	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 Ventilated Improved Pit latrine (VIP) ..... 21 Pit latrine with slab ..... 22 Pit latrine without slab/open pit ..... 23 Composting toilet ..... 31 Bucket ..... 41 Hanging toilet/hanging latrine ..... 51 No facilities or bush or field or ocean ..... 95  Other ( <i>specify</i> ) ..... 96	95—►NEXT MODULE
WS8. DO YOU SHARE THIS FACILITY WITH OTHER HOUSEHOLDS?	Yes ..... 1 No ..... 2	2—►NEXT MODULE
WS8A. DO YOU SHARE THIS FACILITY ONLY WITH OTHER HOUSEHOLDS THAT YOU KNOW, OR IS THE FACILITY OPEN TO THE USE OF THE GENERAL PUBLIC?	Other households only (not public) ..... 1 Public facility ..... 2	2—►NEXT MODULE
WS9. HOW MANY HOUSEHOLDS IN TOTAL USE THIS TOILET FACILITY?	No. of households (if less than 10) ..... 0 ___  Ten or more households ..... 10 DK ..... 98	

HOUSEHOLD CHARACTERISTICS		HC
HC1A. WHAT IS THE RELIGION OF THE HEAD OF THIS HOUSEHOLD?	Roman Catholic..... 1 Protestant and Other Christian..... 2 Muslim..... 3 No Religion..... 4  Others ( <i>specify</i> )..... 6	
HC2. HOW MANY ROOMS IN THIS HOUSEHOLD ARE USED FOR SLEEPING?	No. 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 ..... 35  Other ( <i>specify</i> ) ..... 96	
HC4. MAIN MATERIAL OF THE ROOF.  <i>Record observation.</i>	Natural roofing No Roof..... 11 Grass/Thatch/Makuti ..... 12 Dung/Mud..... 13 Rudimentary Roofing Corrugated iron (Mabati)..... 21 Tin cans ..... 22 Finished roofing Asbestos sheet ..... 31 Concrete ..... 32 Tiles..... 33  Other ( <i>specify</i> ) ..... 96	
HC5. MAIN MATERIAL OF THE WALLS.  <i>Record observation.</i>	Natural walls No walls ..... 11 Cane/palm/trunks ..... 12 Dirt ..... 13 Rudimentary walls Bamboo with mud ..... 21 Stone with mud..... 22 Uncovered adobe ..... 23 Plywood ..... 24 Cardboard..... 25 Reused wood..... 26 Finished walls Cement ..... 31 Stone with lime/cement ..... 32 Bricks ..... 33 Cement blocks..... 34 Covered adobe ..... 35 Wood planks/shingles..... 36  Other ( <i>specify</i> ) ..... 96	2—►WS7 8—►WS7

<p>HC6. WHAT TYPE OF FUEL DOES YOUR HOUSEHOLD MAINLY USE FOR COOKING?</p>	<p>Electricity ..... 01  Liquefied Petroleum Gas (LPG) ..... 02  Natural gas ..... 03  Biogas ..... 04  Kerosene ..... 05</p> <p>Coal / Lignite ..... 06  Charcoal ..... 07  Wood ..... 08  Straw/shrubs/grass ..... 09  Animal dung ..... 10  Agricultural crop residue ..... 11</p> <p>Other (<i>specify</i>) ..... 96</p> <p>No food cooked in household ..... 97</p>	<p>01 → HC9  02 → HC9  03 → HC9  04 → HC9  05 → HC9</p> <p>97 → HC9</p>																																																
<p>HC8. IS THE COOKING USUALLY DONE IN THE INDOOR LIVING SPACE, IN A SEPARATE KITCHEN/BUILDING, OR OUTDOORS?</p>	<p>In a room used for living/sleeping ..... 1  In a separate room used as kitchen ..... 2  In a separate building used as kitchen ..... 3  Outdoors ..... 4</p> <p>Other (<i>specify</i>) ..... 6</p>																																																	
<p>HC9. DOES YOUR HOUSEHOLD HAVE:</p> <p>A. ELECTRICITY?  B. RADIO?  C. COLOR TELEVISION?  D. B&amp;W TELEVISION?  E. MOBILE TELEPHONE?  F. NON-MOBILE TELEPHONE?  G. REFRIGERATOR?  H. BLENDER OR MIXER?  I. WATER HEATER?  J. WASHING MACHINE?  K. COMPUTER?  L. INTERNET CONNECTION?  M. VCR, VCD OR DVD?  N. AIR CONDITIONER?  O. SEWING MACHINE?</p>	<table border="0"> <thead> <tr> <th></th> <th style="text-align: center;">Yes</th> <th style="text-align: center;">No</th> </tr> </thead> <tbody> <tr><td>Electricity .....</td><td style="text-align: center;">1</td><td style="text-align: center;">2</td></tr> <tr><td>Radio .....</td><td style="text-align: center;">1</td><td style="text-align: center;">2</td></tr> <tr><td>Color Television .....</td><td style="text-align: center;">1</td><td style="text-align: center;">2</td></tr> <tr><td>B&amp;W Television .....</td><td style="text-align: center;">1</td><td style="text-align: center;">2</td></tr> <tr><td>Mobile Telephone .....</td><td style="text-align: center;">1</td><td style="text-align: center;">2</td></tr> <tr><td>Non-Mobile Telephone .....</td><td style="text-align: center;">1</td><td style="text-align: center;">2</td></tr> <tr><td>Refrigerator .....</td><td style="text-align: center;">1</td><td style="text-align: center;">2</td></tr> <tr><td>Blender or Mixer .....</td><td style="text-align: center;">1</td><td style="text-align: center;">2</td></tr> <tr><td>Water Heater .....</td><td style="text-align: center;">1</td><td style="text-align: center;">2</td></tr> <tr><td>Washing Machine .....</td><td style="text-align: center;">1</td><td style="text-align: center;">2</td></tr> <tr><td>Computer .....</td><td style="text-align: center;">1</td><td style="text-align: center;">2</td></tr> <tr><td>Internet connection .....</td><td style="text-align: center;">1</td><td style="text-align: center;">2</td></tr> <tr><td>VCR, VCD or DVD .....</td><td style="text-align: center;">1</td><td style="text-align: center;">2</td></tr> <tr><td>Air Conditioner .....</td><td style="text-align: center;">1</td><td style="text-align: center;">2</td></tr> <tr><td>Sewing Machine .....</td><td style="text-align: center;">1</td><td style="text-align: center;">2</td></tr> </tbody> </table>		Yes	No	Electricity .....	1	2	Radio .....	1	2	Color Television .....	1	2	B&W Television .....	1	2	Mobile Telephone .....	1	2	Non-Mobile Telephone .....	1	2	Refrigerator .....	1	2	Blender or Mixer .....	1	2	Water Heater .....	1	2	Washing Machine .....	1	2	Computer .....	1	2	Internet connection .....	1	2	VCR, VCD or DVD .....	1	2	Air Conditioner .....	1	2	Sewing Machine .....	1	2	
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<p>HC10. DOES ANY MEMBER OF YOUR HOUSEHOLD OWN:</p> <p>A. A WATCH?  B. A BICYCLE?  C. A MOTORCYCLE OR SCOOTER?  D. AN ANIMAL-DRAWN CART?  E. A CAR OR TRUCK?  F. A BOAT WITH A MOTOR?</p>	<table border="0"> <thead> <tr> <th></th> <th style="text-align: center;">Yes</th> <th style="text-align: center;">No</th> </tr> </thead> <tbody> <tr><td>Watch .....</td><td style="text-align: center;">1</td><td style="text-align: center;">2</td></tr> <tr><td>Bicycle .....</td><td style="text-align: center;">1</td><td style="text-align: center;">2</td></tr> <tr><td>Motorcycle/Scooter .....</td><td style="text-align: center;">1</td><td style="text-align: center;">2</td></tr> <tr><td>Animal drawn-cart .....</td><td style="text-align: center;">1</td><td style="text-align: center;">2</td></tr> <tr><td>Car/Truck .....</td><td style="text-align: center;">1</td><td style="text-align: center;">2</td></tr> <tr><td>Boat with motor .....</td><td style="text-align: center;">1</td><td style="text-align: center;">2</td></tr> </tbody> </table>		Yes	No	Watch .....	1	2	Bicycle .....	1	2	Motorcycle/Scooter .....	1	2	Animal drawn-cart .....	1	2	Car/Truck .....	1	2	Boat with motor .....	1	2																												
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<p>HC10A. DO YOU OR SOMEONE LIVING IN THIS HOUSEHOLD OWN THIS DWELLING, OR DO YOU RENT THIS DWELLING?</p>	<p>Own ..... 1  Rent ..... 2  Rent free/squatter/other ..... 3</p>																																																	
<p>HC11. DOES ANY MEMBER OF THIS HOUSEHOLD OWN ANY LAND THAT CAN BE USED FOR AGRICULTURE?</p>	<p>Yes ..... 1  No ..... 2</p>	<p>2 → HC13</p>																																																

<p>HC12. HOW MANY ACRES OF AGRICULTURAL LAND DO MEMBERS OF THIS HOUSEHOLD OWN?</p> <p><i>If less than 1, record "00". If more than 97, record '97'. If unknown, record '98'.</i></p>	<p>Acres ..... ____ ____</p>	
<p>HC13. DOES THIS HOUSEHOLD OWN ANY LIVESTOCK, HERDS, OR FARM ANIMALS?</p>	<p>Yes..... 1 No ..... 2</p>	<p>2—▶NEXT MODULE</p>
<p>HC14. HOW MANY OF THE FOLLOWING ANIMALS DOES THIS HOUSEHOLD HAVE?</p> <p>A. LOCAL CATTLE (INDIGENOUS)? B. MILK COWS OR BULLS? C. HORSES, DONKEYS, OR MULES? D. GOATS? E. SHEEP? F. CHICKENS?</p> <p><i>If none, record '00'. If more than 97, record '97'. If unknown, record '98'.</i></p>	<p>Cattle..... ____ ____ Milk cows or bulls..... ____ ____ Horses, donkeys, or mules..... ____ ____ Goats..... ____ ____ Sheep ..... ____ ____ Chickens..... ____ ____</p>	

INDOOR RESIDUAL SPRAYING		IR
IR1. AT ANY TIME IN THE PAST 12 MONTHS, HAS ANYONE SPRAYED THE INTERIOR WALLS OF YOUR DWELLING AGAINST MOSQUITOES?	Yes ..... 1 No ..... 2	2—▶NEXT MODULE
IR2. HOW MANY MONTHS AGO WAS THE HOUSE SPRAYED?  <i>If less than one month, record "00".</i>	Months ago ..... — —	
IR3. WHO SPRAYED THE HOUSE?	Government worker/program ..... 1 Private company ..... 2 Household member ..... 3  Other ( <i>specify</i> ) ..... 6 DK ..... 8	

ITN		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?	Months ago ..... — —	
TN2A. Ask the respondent to show you the nets in the household. If unable to observe the net(s), ask the respondent to determine the brand/type of net.		
If more than 3 nets, use additional questionnaire(s). Tick here if additional questionnaire is used [ ]		

	1 <sup>ST</sup> NET	2 <sup>ND</sup> NET	3 <sup>RD</sup> NET
TN3. Mosquito net observed?	Observed ..... 1 Not observed ..... 2	Observed ..... 1 Not observed ..... 2	Observed ..... 1 Not observed ..... 2
TN4. HOW MANY MONTHS AGO DID YOUR HOUSEHOLD OBTAIN THE MOSQUITO NET?  <i>If less than one month, record "00"</i>	Months ago ..... — — 37+ months ago ..... 95 Not sure ..... 98	Months ago ..... — — 37+ months ago ..... 95 Not sure ..... 98	Months ago ..... — — 37+ months ago ..... 95 Not sure ..... 98
TN5. Observe or ask the brand/type of mosquito net	Long-lasting treated nets Perma Net ..... 11 Olyset ..... 12 Supernet ..... 13 Other (specify) ..... 16 DK brand ..... 18  Pre-treated nets Supanet ..... 21 Other (specify) ..... 26 DK brand ..... 28  Other net (specify) ..... 31  DK brand/type ..... 98	Long-lasting treated nets Perma Net ..... 11 Olyset ..... 12 Supernet ..... 13 Other (specify) ..... 16 DK brand ..... 18  Pre-treated nets Supanet ..... 21 Other (specify) ..... 26 DK brand ..... 28  Other net (specify) ..... 31  DK brand/type ..... 98	Long-lasting treated nets Perma Net ..... 11 Olyset ..... 12 Supernet ..... 13 Other (specify) ..... 16 DK brand ..... 18  Pre-treated nets Supanet ..... 21 Other (specify) ..... 26 DK brand ..... 28  Other net (specify) ..... 31  DK brand/type ..... 98
TN5A. WHERE DID YOU GET THE MOSQUITO NET?  _____ (Name of place)	Public sector Govt. hospital ..... 11 Govt. health centre... 12 Govt. health post/ Dispensary ..... 13 Village hith worker .... 14 Mobile/outreach clinic ..... 15 Other public (specify) ..... 16  Private medical sector Private hospital/clinic 21 Private physician ..... 22 Private pharmacy .... 23 Mobile clinic ..... 24 Other private medical (specify) ..... 26  Other source Relative or friend ..... 31 Shop ..... 32 Trad. practitioner .... 33  Other (specify) ..... 96 DK ..... 98	Public sector Govt. hospital ..... 11 Govt. health centre... 12 Govt. health post/ Dispensary ..... 13 Village hith worker .... 14 Mobile/outreach clinic ..... 15 Other public (specify) ..... 16  Private medical sector Private hospital/clinic 21 Private physician ..... 22 Private pharmacy .... 23 Mobile clinic ..... 24 Other private medical (specify) ..... 26  Other source Relative or friend ..... 31 Shop ..... 32 Trad. practitioner .... 33  Other (specify) ..... 96 DK ..... 98	Public sector Govt. hospital ..... 11 Govt. health centre... 12 Govt. health post/ Dispensary ..... 13 Village hith worker .... 14 Mobile/outreach clinic ..... 15 Other public (specify) ..... 16  Private medical sector Private hospital/clinic 21 Private physician ..... 22 Private pharmacy .... 23 Mobile clinic ..... 24 Other private medical (specify) ..... 26  Other source Relative or friend ..... 31 Shop ..... 32 Trad. practitioner .... 33  Other (specify) ..... 96 DK ..... 98

TN5B. HOW MUCH DID YOU PAY FOR THE MOSQUITO NET?	Shillings ..... _____ Free ..... 9995 DK..... 9998	Shillings ..... _____ Free ..... 9995 DK..... 9998	Shillings ..... _____ Free ..... 9995 DK..... 9998
TN6. <i>Check TN5 for type of net</i>	<input type="checkbox"/> Long-lasting → TN10 <input type="checkbox"/> Pretreated → TN8 <input type="checkbox"/> Else → Continue	<input type="checkbox"/> Long-lasting → TN10 <input type="checkbox"/> Pretreated → TN8 <input type="checkbox"/> Else → Continue	<input type="checkbox"/> Long-lasting → TN10 <input type="checkbox"/> Pretreated → TN8 <input type="checkbox"/> Else → Continue
TN7. WHEN YOU GOT THE NET, WAS IT TREATED WITH AN INSECTICIDE TO KILL OR REPEL MOSQUITOS?	Yes..... 1 No..... 2 DK/Not sure..... 8	Yes..... 1 No..... 2 DK/Not sure..... 8	Yes..... 1 No..... 2 DK/Not sure..... 8
TN8. SINCE YOU GOT THE MOSQUITO NET, WAS IT EVER SOAKED OR DIPPED IN A LIQUID TO KILL OR REPEL MOSQUITOS?	Yes..... 1 No..... 2 → TN10 DK/Not sure..... 8 → TN10	Yes..... 1 No..... 2 → TN10 DK/Not sure..... 8 → TN10	Yes..... 1 No..... 2 → TN10 DK/Not sure..... 8 → TN10
TN9. 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 Not sure ..... 98	Months ago ..... _____  More than 24 mo. ago . 95 Not sure ..... 98	Months ago ..... _____  More than 24 mo. ago . 95 Not sure ..... 98
TN10. DID ANYONE SLEEP UNDER THIS MOSQUITO NET LAST NIGHT?	Yes..... 1 No..... 2 → TN12 DK/Not sure..... 8 → TN12	Yes..... 1 No..... 2 → TN12 DK/Not sure..... 8 → TN12	Yes..... 1 No..... 2 → TN12 DK/Not sure..... 8 → TN12
TN11. WHO SLEPT UNDER THIS MOSQUITO NET LAST NIGHT?  <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 no..... _____  Name ..... _____ Line no..... _____  Name ..... _____ Line no..... _____  Name ..... _____ Line no..... _____	Name ..... _____ Line no..... _____  Name ..... _____ Line no..... _____  Name ..... _____ Line no..... _____  Name ..... _____ Line no..... _____	Name ..... _____ Line no..... _____  Name ..... _____ Line no..... _____  Name ..... _____ Line no..... _____  Name ..... _____ Line no..... _____
TN12.	<i>Go back to TN3 for next net. If no more nets, go to next module</i>	<i>Go back to TN3 for next net. If no more nets, go to next module</i>	<i>Go back to TN3 for next net. If no more nets, go to next module</i>

ORPHANED & VULNERABLE CHILDREN		OV																				
<p>OV1. Check HL5: any children 0-17?</p> <p><input type="checkbox"/> Yes → Continue to OV2</p> <p><input type="checkbox"/> No → Child Labour Module</p>																						
<p>OV2. I WOULD LIKE YOU TO THINK BACK OVER THE PAST 12 MONTHS. HAS ANY USUAL MEMBER OF YOUR HOUSEHOLD DIED IN THE LAST 12 MONTHS?</p>	<p>Yes..... 1</p> <p>No ..... 2</p>	2 → OV5																				
<p>OV3. (OF THOSE WHO DIED IN THE PAST 12 MONTHS) WERE ANY OF THESE PEOPLE BETWEEN THE AGES OF 18 AND 59?</p>	<p>Yes..... 1</p> <p>No ..... 2</p>	2 → OV5																				
<p>OV4. (OF THOSE WHO DIED IN THE PAST 12 MONTHS AND WERE BETWEEN THE AGES OF 18 AND 59) WERE ANY OF THESE PEOPLE VERY SICK FOR 3 OF THE 12 MONTHS BEFORE HE/SHE DIED?</p>	<p>Yes..... 1</p> <p>No ..... 2</p>	1 → OV8																				
<p>OV5. Return to the Household Listing and check the following:</p> <p>OV5A. Check HL9 and HL11.</p> <p><input type="checkbox"/> At least one mother or father dead. → Go to OV8</p> <p><input type="checkbox"/> No mother or father dead</p>																						
<p>OV5B. Check HL8A.</p> <p><input type="checkbox"/> At least one adult aged 18-59 very sick 3 of last 12 months → Go to OV8</p> <p><input type="checkbox"/> No adult aged 18-59 very sick 3 of last 12 months</p>																						
<p>OV5C. Check HL10A and HL12A.</p> <p><input type="checkbox"/> At least one mother or father very sick 3 of last 12 months → Go to OV8</p> <p><input type="checkbox"/> No mother or father very sick 3 of last 12 months → Go to Child Labour Module</p>																						
<p>OV8. List all children aged 0-17 below. Record names, line numbers and ages of all children, beginning with the first child and continue in order in which listed in the household listing module. Use an additional questionnaire if there are more than 4 children age 0-17 in the household. Ask all questions for one child before moving to the next child.</p> <p style="text-align: right;"><i>Tick here if additional questionnaire is used</i> <input type="checkbox"/></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>1<sup>ST</sup> CHILD</th> <th>2<sup>ND</sup> CHILD</th> <th>3<sup>RD</sup> CHILD</th> <th>4<sup>TH</sup> CHILD</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Name (from HL2)</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td style="text-align: center;">Line number (from HL1)</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td style="text-align: center;">Age (from HL5)</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table>				1 <sup>ST</sup> CHILD	2 <sup>ND</sup> CHILD	3 <sup>RD</sup> CHILD	4 <sup>TH</sup> CHILD	Name (from HL2)	_____	_____	_____	_____	Line number (from HL1)	_____	_____	_____	_____	Age (from HL5)	_____	_____	_____	_____
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Line number (from HL1)	_____	_____	_____	_____																		
Age (from HL5)	_____	_____	_____	_____																		
<p>I WOULD LIKE TO ASK YOU ABOUT ANY FORMAL, ORGANIZED HELP OR SUPPORT THAT YOUR HOUSEHOLD MAY HAVE RECEIVED FOR (name) AND FOR WHICH YOU DID NOT HAVE TO PAY. BY FORMAL ORGANIZED SUPPORT I MEAN HELP PROVIDED BY SOMEONE WORKING FOR A PROGRAM. THIS PROGRAM COULD BE GOVERNMENT, PRIVATE, RELIGIOUS, CHARITY, OR COMMUNITY-BASED. REMEMBER THIS SHOULD BE SUPPORT FOR WHICH YOU DID NOT PAY.</p>																						

OV10. NOW I WOULD LIKE TO ASK YOU ABOUT THE SUPPORT YOUR HOUSEHOLD RECEIVED FOR <i>(name)</i> . IN THE LAST 12 MONTHS, HAS YOUR HOUSEHOLD RECEIVED ANY MEDICAL SUPPORT FOR <i>(name)</i> , SUCH AS MEDICAL CARE, SUPPLIES OR MEDICINE?	Yes..... 1 No..... 2 DK..... 8			
OV11. IN THE LAST 12 MONTHS, HAS YOUR HOUSEHOLD RECEIVED ANY EMOTIONAL OR PSYCHOLOGICAL SUPPORT FOR <i>(name)</i> , SUCH AS COMPANIONSHIP, COUNSELING FROM A TRAINED COUSELOR, OR SPIRITUAL SUPPORT, WHICH YOU RECEIVED AT HOME?	Yes..... 1 No..... 2 →OV13 DK..... 8			
OV12. DID YOUR HOUSEHOLD RECEIVE ANY OF THIS SUPPORT IN THE PAST 3 MONTHS?	Yes..... 1 No..... 2 DK..... 8			
OV13. IN THE LAST 12 MONTHS, HAS YOUR HOUSEHOLD RECEIVED ANY MATERIAL SUPPORT FOR <i>(name)</i> , SUCH AS CLOTHING, FOOD OR FINANCIAL SUPPORT?	Yes..... 1 No..... 2 →OV15 DK..... 8			
OV14. DID YOUR HOUSEHOLD RECEIVE ANY OF THIS SUPPORT IN THE PAST 3 MONTHS?	Yes..... 1 No..... 2 DK..... 8			
OV15. IN THE LAST 12 MONTHS, HAS YOUR HOUSEHOLD RECEIVED ANY SOCIAL SUPPORT FOR <i>(name)</i> , SUCH AS HELP IN HOUSEHOLD WORK, TRAINING FOR A CAREGIVER, OR LEGAL SERVICES?	Yes..... 1 No..... 2 →OV17 DK..... 8			
OV16. DID YOUR HOUSEHOLD RECEIVE ANY OF THIS SUPPORT IN THE PAST 3 MONTHS?	Yes..... 1 No..... 2 DK..... 8			
OV17. <i>Check OV8 for age of child:</i>	<input type="checkbox"/> Age 0-4 →Next child  <input type="checkbox"/> Age 5-17 →OV18	<input type="checkbox"/> Age 0-4 →Next child  <input type="checkbox"/> Age 5-17 →OV18	<input type="checkbox"/> Age 0-4 →Next child  <input type="checkbox"/> Age 5-17 →OV18	<input type="checkbox"/> Age 0-4 →Next child  <input type="checkbox"/> Age 5-17 →OV18
OV18. IN THE LAST 12 MONTHS, HAS YOUR HOUSEHOLD RECEIVED ANY SUPPORT FOR <i>(name's)</i> SCHOOLING, SUCH AS ALLOWANCE, FREE ADMISSION, BOOKS OR SUPPLIES?	Yes..... 1 No..... 2 DK..... 8			

**CHILD LABOUR CL**

To be administered for children in the household age 5 through 14 years. For household members below age 5 or above age 14, leave rows blank.  
 NOW I WOULD LIKE TO ASK ABOUT ANY WORK CHILDREN IN THIS HOUSEHOLD MAY DO.

CL1. Line no.	CL2. Name and age	CL3. DURING THE PAST WEEK, DID (name) DO ANY KIND OF WORK FOR SOMEONE WHO IS NOT A MEMBER OF THIS HOUSEHOLD?  If yes: PROBE FOR (PAY IN CASH OR KIND) OR UNPAID?  1 Yes, for pay (cash or kind) 2 Yes, unpaid 3 No → CL5		CL4. If yes: 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?  If more than one job, include all hours at all jobs		CL5. DURING THE PAST WEEK, DID (name) WATER OR COLLECT FIREWOOD FOR HOUSEHOLD USE?  1 Yes 2 No → To CL7		CL6. If yes: 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 IN A FAMILY BUSINESS OR SELLING GOODS?  Include work for a business run by the child, alone or with one or more partners.  1 Yes 2 No → CL9		CL8. If yes: SINCE LAST (day of the week), ABOUT HOW MANY HOURS 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?  1 Yes 2 No → Next Line		CL10. If yes: SINCE LAST (day of the week), ABOUT HOW MANY HOURS DID HE/SHE SPEND DOING THESE CHORES?	
		YES	NO	NO. HOURS	NO. HOURS	YES	NO	NO. HOURS	NO. HOURS	YES	NO	NO. HOURS	NO. HOURS	YES	NO	NO. HOURS	NO. HOURS
01		PAID	UNPAID	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		

## CHILD DISCIPLINE

**Table 1: children Aged 2-14 YEARS ELIGIBLE for child Discipline questions**

Review the household listing and list each of the children aged 2-14 years below in order according to their line number (HL1). 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 (CD7).

CD1. Rank no.	CD2. Line no. from HL1	CD3. Name from HL2.	CD4. Sex from HL4.		CD5. Age from HL5.
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	___

<b>CD7.</b>	<b>TOTAL CHILDREN AGED 2-14 YEARS</b>	___
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If there is only one child age 2-14 years in the household, then skip table 2 and go to CD9; write down the rank number of the child and continue with CD11

**Table 2: selection of random child for child Discipline questions**

Use this table 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. Look for the last digit of the household number 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 CD7 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 about whom the questions will be asked. Record the rank number in CD9 below. Finally, record the line number and name of the selected child in CD11 on the next page.

CD8.	TOTAL NUMBER OF ELIGIBLE CHILDREN IN THE HOUSEHOLD								
Last digit of the household number	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	

<b>CD9. Record the rank number of the selected child</b>	Rank number of child _____
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CHILD DISCIPLINE		CD
Identify eligible child aged 2 to 14 in the household using the tables on the preceding page, according to your instructions.		
<b>CD11.</b> Write name and line no. of the child selected for the module from CD3 and CD2, based on the rank number in CD9.	Name _____ Line _____	
<b>CD12.</b> ALL 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 YOU OR ANYONE ELSE IN YOUR HOUSEHOLD HAS USED THIS METHOD WITH (name) IN THE PAST MONTH.		
<b>CD12A.</b> TOOK AWAY PRIVILEGES, FORBADE SOMETHING (name) LIKED OR DID NOT ALLOW HIM/HER TO LEAVE HOUSE).	Yes..... 1 No ..... 2	
<b>CD12B.</b> EXPLAINED WHY SOMETHING (THE BEHAVIOR) WAS WRONG.	Yes..... 1 No ..... 2	
<b>CD12C.</b> SHOOK HIM/HER.	Yes..... 1 No ..... 2	
<b>CD12D.</b> SHOUTED, YELLED AT OR SCREAMED AT HIM/HER.	Yes..... 1 No ..... 2	
<b>CD12E.</b> GAVE HIM/HER SOMETHING ELSE TO DO.	Yes..... 1 No ..... 2	
<b>CD12F.</b> SPANKED, HIT OR SLAPPED HIM/HER ON THE BOTTOM WITH BARE HAND.	Yes..... 1 No ..... 2	
<b>CD12G.</b> HIT HIM/HER ON THE BOTTOM OR ELSEWHERE ON THE BODY WITH SOMETHING LIKE A BELT, HAIRBRUSH, STICK OR OTHER HARD OBJECT.	Yes..... 1 No ..... 2	
<b>CD12H.</b> CALLED HIM/HER DUMB, LAZY, OR ANOTHER NAME LIKE THAT.	Yes..... 1 No ..... 2	
<b>CD12I.</b> HIT OR SLAPPED HIM/HER ON THE FACE, HEAD OR EARS.	Yes..... 1 No ..... 2	

<b>CD12J.</b> HIT OR SLAPPED HIM/HER ON THE HAND, ARM, OR LEG.	Yes ..... 1 No ..... 2	
<b>CD12K.</b> BEAT HIM/HER UP WITH AN IMPLEMENT (HIT OVER AND OVER AS HARD AS ONE COULD).	Yes ..... 1 No ..... 2	
<b>CD13.</b> DO YOU BELIEVE THAT IN ORDER TO BRING UP (RAISE, EDUCATE) (name) PROPERLY, YOU NEED TO PHYSICALLY PUNISH HIM/HER?	Yes ..... 1 No ..... 2 Don't know/no opinion ..... 3	

**DISABILITY**

**DA**

To be administered for all children 2 through 9 years old living in the household. For household members below age 2 or above age 9, leave rows blank I WOULD LIKE TO ASK YOU IF ANY CHILDREN IN THIS HOUSEHOLD AGED 2 THROUGH 9 HAS ANY OF THE HEALTH CONDITIONS I AM GOING TO MENTION TO YOU.

DA1. Line no.	DA2. Child's name and age	DA3. COMPARED WITH OTHER CHILDREN, DOES OR DID (name) HAVE ANY SERIOUS DELAY IN SITTING, STANDING, OR WALKING?	DA4. COMPARED WITH OTHER CHILDREN, DOES (name) HAVE DIFFICULTY SEEING, EITHER IN THE DAYTIME OR AT NIGHT?	DA5. DOES (name) APPEAR TO HAVE DIFFICULTY HEARING? (USES HEARING AID, HEARS WITH DIFFICULTY, COMPLETELY DEAF?)	DA6. WHEN YOU TELL (name) TO DO SOMETHING, DOES HE/SHE SEEM TO UNDERSTAND WHAT YOU ARE SAYING?	DA7. DOES (name) HAVE DIFFICULTY WALKING OR MOVING HIS/HER ARMS OR DOES HE/SHE HAVE WEAKNESS AND/OR STIFFNESS IN THE ARMS OR LEGS?	DA8. DOES (name) SOMETIMES HAVE FITS, BECOME RIGID, OR LOSE CONSCIOUSNESS?	DA9. DOES (name) LEARN TO DO THINGS LIKE OTHER CHILDREN HIS/HER AGE?	DA10. DOES (name) SPEAK AT ALL (CAN HE/SHE MAKE HIM OR HERSELF UNDERSTOOD IN WORDS; CAN SAY ANY RECOGNIZABLE WORDS)?	DA11. (For 3-9 year olds): IS (name)'S SPEECH IN ANY WAY DIFFERENT FROM NORMAL (NOT CLEAR ENOUGH TO BE UNDERSTOOD BY PEOPLE OTHER THAN THE IMMEDIATE FAMILY)?	DA12. (For 2-year olds): CAN (name) NAME AT LEAST ONE OBJECT (FOR EXAMPLE, AN ANIMAL, A TOY, A CUP, A SPOON)?	DA13. COMPARED WITH OTHER CHILDREN OF THE SAME AGE, DOES (name) APPEAR IN ANY WAY MENTALLY BACKWARD, DULL OR SLOW?		
LINE	NAME	AGE	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N
01		--	1	2	1	2	1	2	1	2	1	2	1	2
02		--	1	2	1	2	1	2	1	2	1	2	1	2
03		--	1	2	1	2	1	2	1	2	1	2	1	2
04		--	1	2	1	2	1	2	1	2	1	2	1	2
05		--	1	2	1	2	1	2	1	2	1	2	1	2
06		--	1	2	1	2	1	2	1	2	1	2	1	2
07		--	1	2	1	2	1	2	1	2	1	2	1	2
08		--	1	2	1	2	1	2	1	2	1	2	1	2
09		--	1	2	1	2	1	2	1	2	1	2	1	2
10		--	1	2	1	2	1	2	1	2	1	2	1	2
11		--	1	2	1	2	1	2	1	2	1	2	1	2
12		--	1	2	1	2	1	2	1	2	1	2	1	2
13		--	1	2	1	2	1	2	1	2	1	2	1	2
14		--	1	2	1	2	1	2	1	2	1	2	1	2
15		--	1	2	1	2	1	2	1	2	1	2	1	2

HANDWASHING FACILITY		HW
HW1. WE WOULD LIKE TO SEE THE PLACE WHERE MEMBERS OF YOUR HOUSEHOLD MOST OFTEN WASH THEIR HANDS? MAY I SEE THIS PLACE?	Place for hand washing observed ..... 1 No specific place for hand washing ..... 2 No permission to see ..... 3	2—►HW5 3—►HW5
HW1A. Place where household members most often wash their hands?  <i>Ask to see and observe. Record only one hand washing place. This is the hand washing place most often used by household members. Estimate the distance of "within 10 paces".</i>	Inside Toilet facility ..... 01 Kitchen/Cooking place ..... 02 Within 10 paces of Both toilet and kitchen..... 03 Toilet facility (but farther from kitchen)..... 04 Kitchen (but farther from toilet facility)..... 05 Elsewhere Elsewhere in home or yard ..... 06 Elsewhere outside the yard..... 07  Other (specify) ..... 96	
HW2. Water available at the place for hand washing?  <i>If there is a tap or pump at the specific place for hand washing, open the tap or operate the pump to see if water is coming out. If there is a bucket, basin or other type of water container, examine to see whether water is present in the container. Record observation.</i>	Water available ..... 1 Water not available..... 2	
HW3. Soap or detergent present at the specific place for hand washing?  <i>Record observation. Circle all that apply.</i>	Bar soap ..... A Detergent (powder/liquid/paste)..... B Liquid soap..... C None ..... Y	A—►NEXT MODULE B—►NEXT MODULE C—►NEXT MODULE D—►NEXT MODULE
HW5. DO YOU HAVE ANY SOAP OR DETERGENT IN YOUR HOUSEHOLD FOR WASHING HANDS?	Yes ..... 1 No ..... 2	2—►NEXT MODULE
HW6. CAN 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 Not able/Does not want to show..... Y	

SALT IODIZATION		SI
SI1. WE WOULD LIKE TO CHECK WHETHER THE SALT USED IN YOUR HOUSEHOLD IS IODIZED. MAY I SEE A SAMPLE OF THE SALT USED TO COOK THE MAIN MEAL EATEN BY MEMBERS OF YOUR HOUSEHOLD LAST NIGHT?  MAY I TEST A SAMPLE OF THIS SALT?  <i>Once you have examined the salt, circle number that corresponds to test outcome.</i>	Not iodized 0 PPM ..... 1 Less than 15 PPM ..... 2 15 PPM or more ..... 3  No salt in home ..... 6 Salt not tested ..... 7	

SI1A. Record the time.	Hour and minutes	__ : __
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<p>SI2. <i>Does any eligible woman age 15-49 reside in the household?</i>  <i>Check household listing, column HL6. You should have a questionnaire with the Information Panel filled in for each eligible woman.</i></p> <p><input type="checkbox"/> Yes. —▶ <i>Go to women's Questionnaire to administer the questionnaire to the first eligible woman.. If this woman has a child under age 5, continue to interview her on her under-5 child(ren)</i></p> <p><input type="checkbox"/> No. —▶ <i>Continue.</i></p>
<p>SI3. <i>Does any child under the age of 5 reside in the household?</i>  <i>Check household listing, column HL8. You should have a questionnaire with the Information Panel filled in for each eligible child.</i></p> <p><input type="checkbox"/> Yes. —▶ <i>Go to Under-5 Questionnaire to administer the questionnaire to mother or caretaker of the first eligible child.</i></p> <p><input type="checkbox"/> No. —▶ <i>End the interview by thanking the respondent for his/her cooperation. Gather together all questionnaires for this household and tally the number of interviews completed on the cover page.</i></p>

**REMARKS AND OBSERVATIONS**

SUPERVISOR

FIELD EDITOR

FIELD MONITORS/CO-ORDINATORS

OFFICE EDITOR

<b>WOMEN'S INFORMATION PANEL</b>		<b>WM</b>
<p><i>This module is to be administered to all women age 15 through 49 (see column HL6 of HH listing). Fill in one form for each eligible woman Fill in the cluster and household number, and the name and line number of the woman in the space below. Fill in your name, number and the date.</i></p>		
WM-A. Province Name & Code: _____	WM-B. County Name & Code: _____	
WM-C. District Name & Code: _____		
WM1. Cluster number: _____	WM2. Household number: _____	
WM3. Woman's Name: _____	WM4. Woman's Line Number: _____	
WM5. Interviewer name and number: _____	WM6. Day/Month/Year of interview: ____ / ____ / _____	
<p><i>Repeat greeting if not already read to this woman: WE ARE FROM KENYA NATIONAL BUREAU OF STATISTICS (KNBS). WE ARE WORKING ON A PROJECT CONCERNED WITH FAMILY HEALTH AND EDUCATION. I WOULD LIKE TO TALK TO YOU ABOUT THIS. THE INTERVIEW USUALLY TAKES AROUND 30-35 MINUTES. ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND YOUR ANSWERS WILL NEVER BE IDENTIFIED. ALSO, YOU ARE NOT OBLIGED TO ANSWER ANY QUESTION YOU DON'T WANT TO, AND YOU MAY WITHDRAW FROM THE INTERVIEW AT ANY TIME. MAY I START NOW?</i></p> <p><i>If permission is given, begin the interview. If the woman does not agree to continue, thank her, complete WM7, and go to the next interview. Discuss this result with your supervisor for a future re-visit.</i></p>		
WM7. Result of women's interview	Completed..... 1 Not at home..... 2 Refused ..... 3 Partly completed ..... 4 Incapacitated..... 5  Other (specify) ..... 6	
<p><i>Interviewer/editor/supervisor notes: Use this space to record notes about the interview with this household, such as call-back times, incomplete individual interview forms, number of attempts to re-visit, etc.</i></p>		
WM71. Supervisor: Name _____	WM72. Field edited by (name and number): Name _____	
WM73. Data Entry: Name and Number Name _____		

## ENGLISH

1. The child is reading a book.
2. The rains came late this year.
3. Parents must care for their children.
4. Farming is hard work.

## KISWAHILI

1. Mtoto anasoma kitabu.
2. Mvua ilichelewa mwaka huu.
3. Nilazima wazazi watunze watoto wao.
4. Ukulima ni kazi ngumu.

WOMEN'S INFORMATION PANEL		WM
WM7A. <i>Record the time.</i>	Hour and minutes..... __ : __	
WM8. IN WHAT MONTH AND YEAR WERE YOU BORN?	Date of birth: Month ..... __ __ DK month..... 98  Year ..... __ __ __ __ DK year ..... 9998	
WM9. HOW OLD WERE YOU AT YOUR LAST BIRTHDAY?	Age (in completed years)..... __ __	
WM10. HAVE YOU EVER ATTENDED SCHOOL, PRESCHOOL OR ANY NON-FORMAL EDUCATION?	Yes..... 1 No ..... 2	2—►WM14
WM11. WHAT IS THE HIGHEST LEVEL OF SCHOOL YOU ATTENDED?	Preschool ..... 0 Primary ..... 1 Post-Primary/Vocational..... 2 Secondary ..... 3 Higher ..... 4  Non-formal education ..... 6	0—►WM14      6—►WM14
WM12. WHAT IS THE HIGHEST GRADE (STANDARD/FORM/CLASS) YOU COMPLETED AT THAT LEVEL?  <i>If less than 1 grade, enter 00</i>	Grade..... __ __	
WM13. <i>Check WM11:</i>  [ ] <i>Secondary or higher. —► Go to Next Module</i>  [ ] <i>Preschool, primary or non-formal education. —► Continue with WM14</i>		
WM14. NOW I WOULD LIKE YOU TO READ THIS SENTENCE TO ME.  <i>Show sentences to respondent. If respondent cannot read whole sentence, probe:</i>  CAN YOU READ PART OF THE SENTENCE TO ME?  <i>Example sentences for literacy test:</i> 1. <i>The child is reading a book.</i> 2. <i>The rains came late this year.</i> 3. <i>Parents must care for their children.</i> 4. <i>Farming is hard work.</i>	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 (specify language)  Blind/mute, visually/speech impaired ..... 5	

CHILD MORTALITY		CM
<i>All questions refer only to LIVE births.</i>		
CM1. NOW I WOULD LIKE TO ASK ABOUT ALL THE BIRTHS YOU HAVE HAD DURING YOUR LIFE. HAVE YOU EVER GIVEN BIRTH?  <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—► MARRIAGE/ UNION MODULE
CM3. DO YOU HAVE ANY SONS OR DAUGHTERS TO WHOM YOU HAVE GIVEN BIRTH WHO ARE NOW LIVING WITH YOU?	Yes..... 1 No ..... 2	2—►CM5
CM4. HOW MANY SONS LIVE WITH YOU?  HOW MANY DAUGHTERS LIVE WITH YOU?	Sons at home ..... _ _  Daughters at home..... _ _	
CM5. 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—►CM7
CM6. HOW MANY SONS ARE ALIVE BUT DO NOT LIVE WITH YOU?  HOW MANY DAUGHTERS ARE ALIVE BUT DO NOT LIVE WITH YOU?	Sons elsewhere ..... _ _  Daughters elsewhere..... _ _	
CM7. HAVE YOU EVER GIVEN BIRTH TO A BOY OR GIRL WHO WAS BORN ALIVE BUT LATER DIED?	Yes..... 1 No ..... 2	2—►CM9
CM8. HOW MANY BOYS HAVE DIED?  HOW MANY GIRLS HAVE DIED?	Boys dead ..... _ _  Girls dead ..... _ _	
CM9. Sum answers to CM4, CM6, and CM8.	Sum ..... _ _	
CM10. JUST TO MAKE SURE THAT I HAVE THIS RIGHT, YOU HAVE HAD IN TOTAL ( <i>number in CM9</i> ) BIRTHS DURING YOUR LIFE. IS THIS CORRECT?  <input type="checkbox"/> Yes. —► <i>Go to BH1</i>  <input type="checkbox"/> No. —► <i>Check responses and make corrections before proceeding to BH1</i>		

**BIRTH HISTORY**

**BH**

NOW I WOULD LIKE TO RECORD THE NAMES OF ALL YOUR BIRTHS, WHETHER STILL ALIVE OR NOT, STARTING WITH THE FIRST ONE YOU HAD.

Record names of all the births in BH1. Record twins and triplets on separate lines.

#	BH1 WHAT NAME WAS GIVEN TO YOUR (first/ next) BABY?	BH2 WERE ANY OF THESE BIRTHS TWINS?		BH3 IS (name) A BOY OR GIRL?	BH4 IN WHAT MONTH AND YEAR WAS (name) BORN?  Probe: WHAT IS HIS/HER BIRTHDAY?	BH5 IS (name) STILL ALIVE?		BH6 HOW OLD WAS (name) AT HIS/ HER LAST BIRTHDAY?  Record age in completed years	BH7 IS (name) LIVING WITH YOU?	BH8 Record HH line number of child  Record '00' if child not listed in HH	BH9 If dead: HOW OLD WAS (name) WHEN HE/ SHE DIED?  HOW MANY MONTHS OLD WAS (name)?  Record days if less than 1 month; months if less than 2 years; or years	BH10 WERE THERE ANY OTHER LIVE BIRTHS BETWEEN (name of previous birth) AND (name)?		
		SIN	MUL			B	G					MONTH/YEAR	Y	N
01		1	2	1	2	___/___/___	1	2→BH9	1	2	—→next line	Days .....1 Month .....2 Year .....3	1 Add	2 Next
02		1	2	1	2	___/___/___	1	2→BH9	1	2	—→BH10	Days .....1 Month .....2 Year .....3	1 A dd	2 Next
03		1	2	1	2	___/___/___	1	2→BH9	1	2	—→BH10	Days .....1 Month .....2 Year .....3	1 Add	2 Next
04		1	2	1	2	___/___/___	1	2→BH9	1	2	—→BH10	Days .....1 Month .....2 Year .....3	1 Add	2 Next
05		1	2	1	2	___/___/___	1	2→BH9	1	2	—→BH10	Days .....1 Month .....2 Year .....3	1 Add	2 Next
06		1	2	1	2	___/___/___	1	2→BH9	1	2	—→BH10	Days .....1 Month .....2 Year .....3	1 Add	2 Next
07		1	2	1	2	___/___/___	1	2→BH9	1	2	—→BH10	Days .....1 Month .....2 Year .....3	1 Add	2 Next

08		1	2	1	2	___/___/___	1	2→BH9			1	2	—→BH10	Days.....1 Month.....2 Year.....3	1 Add	2 Next
09		1	2	1	2	___/___/___	1	2→BH9			1	2	—→BH10	Days.....1 Month.....2 Year.....3	1 Add	2 Next
10		1	2	1	2	___/___/___	1	2→BH9			1	2	—→BH10	Days.....1 Month.....2 Year.....3	1 Add	2 Next
11		1	2	1	2	___/___/___	1	2→BH9			1	2	—→BH10	Days.....1 Month.....2 Year.....3	1 Add	2 Next
12		1	2	1	2	___/___/___	1	2→BH9			1	2	—→BH10	Days.....1 Month.....2 Year.....3	1 Add	2 Next
13		1	2	1	2	___/___/___	1	2→BH9			1	2	—→BH10	Days.....1 Month.....2 Year.....3	1 Add	2 Next
14		1	2	1	2	___/___/___	1	2→BH9			1	2	—→BH10	Days.....1 Month.....2 Year.....3	1 Add	2 Next
15		1	2	1	2	___/___/___	1	2→BH9			1	2	—→BH10	Days.....1 Month.....2 Year.....3	1 Add	2 Next
BH11	HAVE YOU HAD ANY LIVE BIRTHS SINCE THE BIRTH OF (name of last birth)? If yes, record birth(s)	Yes.....1 No.....2														
BH12	Compare CM9 with number of births in history above and mark: [ ] Numbers are different → Probe and reconcile [ ] Numbers are same →	Check: For all births: Year of birth is recorded ..... [ ] For each living child: Current age is recorded ..... [ ] For each dead child: Age at death is recorded ..... [ ] For age at death 12 months or 1 year: Probe to determine exact number of months ..... [ ]														

**BIRTH HISTORY****BH**

BH13. Check BH4: Did the woman's last birth occur within the last 2 years, that is, since (day and month of interview) in 2011?

*If child has died, take special care when referring to this child by name in the following modules.*

[ ] No live birth in last 2 years. —► Go to MARRIAGE/UNION module.

[ ] Yes, live birth in last 2 years. —► Record name of last born child and continue with BH14

Name of child \_\_\_\_\_

BH14. AT THE TIME YOU BECAME PREGNANT WITH (name), DID YOU WANT TO BECOME PREGNANT THEN, DID YOU WANT TO WAIT UNTIL LATER, OR DID YOU WANT NO (MORE) CHILDREN AT ALL?	Then.....	1
	Later .....	2
	No more.....	3

TETANUS TOXOID (TT)		TT
<i>This module is to be administered to all women with a live birth in the 2 years preceding date of interview.</i>		
TT1. DO YOU HAVE A CARD OR OTHER DOCUMENT WITH YOUR OWN IMMUNIZATIONS LISTED?  <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	
TT2. WHEN YOU WERE PREGNANT WITH (name), DID YOU RECEIVE ANY INJECTION TO PREVENT HIM OR HER FROM GETTING TETANUS, THAT IS CONVULSIONS AFTER BIRTH?  <i>Probe:</i> AN ANTI-TETANUS SHOT, AN INJECTION AT THE TOP OF THE ARM OR SHOULDER?	Yes ..... 1 No ..... 2  DK ..... 8	2 → TT5  8 → TT5
TT3. HOW MANY TIMES DID YOU RECEIVE THIS ANTI-TETANUS INJECTION DURING YOUR PREGNANCY WITH (name)?	No. of times ..... _ _  DK ..... 98	98 → TT5
TT4. How many TT doses during last pregnancy were reported in TT3?  <input type="checkbox"/> At least two TT injections during last pregnancy. → Go to Next Module  <input type="checkbox"/> Fewer than two TT injections during last pregnancy. → Continue with TT5		
TT5. DID YOU RECEIVE ANY TETANUS TOXOID INJECTION AT ANY TIME BEFORE YOUR PREGNANCY WITH (name)?	Yes ..... 1 No ..... 2  DK ..... 8	2 → NEXT MODULE 8 → NEXT MODULE
TT6. HOW MANY TIMES DID YOU RECEIVE IT?	No. of times ..... _ _	
TT7. IN WHAT MONTH AND YEAR DID YOU RECEIVE THE LAST ANTI-TETANUS INJECTION BEFORE YOUR PREGNANCY WITH (name)?  <i>Skip to next module only if year of injection is given. Otherwise, continue with TT8.</i>	Month ..... _ _ DK month ..... 98  Year ..... _ _ _ _  DK year ..... 9998	→ NEXT MODULE TT8
TT8. HOW MANY YEARS AGO DID YOU RECEIVE THE LAST ANTI-TETANUS INJECTION BEFORE YOUR PREGNANCY WITH (name)?	Years ago ..... _ _	

MATERNAL AND NEWBORN HEALTH		MN															
<p><i>This module is to be administered to all women with a live birth in the 2 years preceding date of interview. Check the birth history module BH13 and record name of last-born child here _____. Use this child's name in the following questions, where indicated.</i></p>																	
<p>MN1. IN THE FIRST TWO MONTHS AFTER THE BIRTH OF (name), DID YOU RECEIVE A VITAMIN A DOSE LIKE THIS?</p> <p><i>Show 200,000 IU capsule or dispenser.</i></p>	<p>Yes ..... 1  No ..... 2  DK ..... 8</p>																
<p>MN2. DID YOU SEE ANYONE FOR ANTENATAL CARE FOR THIS PREGNANCY?</p> <p><i>If yes: WHOM DID YOU SEE? ANYONE ELSE?</i></p> <p><i>Probe for the type of person seen and circle all answers given.</i></p>	<p>Health professional  Doctor ..... A  Community nurse ..... B  Clinical officer ..... C  Nurse/Midwife..... D</p> <p>Other person  Traditional birth attendant..... E  Community health worker..... F</p> <p>Relative/friend ..... G</p> <p>Other (specify) ..... X</p> <p>No one..... Y</p>	Y → MN7															
<p>MN2A. HOW MANY TIMES DID YOU RECEIVE ANTENATAL CARE DURING THIS PREGNANCY?</p>	<p>No. of times ..... _ _  DK ..... 98</p>																
<p>MN3. AS PART OF YOUR ANTENATAL CARE, WERE ANY OF THE FOLLOWING DONE AT LEAST ONCE?</p> <p>A. WERE YOU WEIGHED?  B. WAS YOUR BLOOD PRESSURE MEASURED?  C. DID YOU GIVE A URINE SAMPLE?  D. DID YOU GIVE A BLOOD SAMPLE?</p>	<table border="0"> <thead> <tr> <th></th> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr> <td>Weight .....</td> <td>1</td> <td>2</td> </tr> <tr> <td>Blood pressure .....</td> <td>1</td> <td>2</td> </tr> <tr> <td>Urine sample .....</td> <td>1</td> <td>2</td> </tr> <tr> <td>Blood sample .....</td> <td>1</td> <td>2</td> </tr> </tbody> </table>		Yes	No	Weight .....	1	2	Blood pressure .....	1	2	Urine sample .....	1	2	Blood sample .....	1	2	
	Yes	No															
Weight .....	1	2															
Blood pressure .....	1	2															
Urine sample .....	1	2															
Blood sample .....	1	2															
<p>MN4. DURING ANY OF THE ANTENATAL VISITS FOR THE PREGNANCY, WERE YOU GIVEN ANY INFORMATION OR COUNSELED ABOUT AIDS OR THE AIDS VIRUS?</p>	<p>Yes ..... 1  No ..... 2  DK ..... 8</p>																
<p>MN5. I DON'T WANT TO KNOW THE RESULTS, BUT WERE YOU TESTED FOR HIV/AIDS AS PART OF YOUR ANTENATAL CARE?</p>	<p>Yes ..... 1  No ..... 2  DK ..... 8</p>	<p>2 → MN6A  8 → MN6A</p>															
<p>MN6. I DON'T WANT TO KNOW THE RESULTS, BUT DID YOU GET THE RESULTS OF THE TEST?</p>	<p>Yes ..... 1  No ..... 2  DK ..... 8</p>																

<p>MN6B. WHICH MEDICINES DID YOU TAKE TO PREVENT MALARIA?</p>	<p>SP/Fansidar ..... A  Chloroquine ..... B    Other (<i>specify</i>) ..... X  DK ..... Z</p>	
<p>MN6C. Check MN6B for medicine taken:</p> <p>[ ] SP/Fansidar taken. —► Continue with MN6D</p> <p>[ ] SP/Fansidar not taken. —► Go to MN7</p>		
<p>MN6D. HOW MANY TIMES DID YOU TAKE SP/FANSIDAR?</p>	<p>Number of times ..... _ _</p>	
<p>MN7. 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>Health professional  Doctor ..... A  Community nurse ..... B  Clinical officer ..... C  Nurse/Midwife ..... D</p> <p>Other person  Traditional birth attendant ..... E  Community health worker ..... F</p> <p>Relative/friend ..... G</p> <p>Other (<i>specify</i>) ..... X</p> <p>No one ..... Y</p>	
<p>MN8. WHERE DID YOU GIVE BIRTH TO (name)?</p> <p><i>If source is hospital, health center, or clinic, write the name of the place below. Probe to identify the type of source and circle the appropriate code.</i></p> <p>_____</p> <p>(Name of place)</p>	<p>Your home ..... 11  Other home ..... 12</p> <p>Public Sector  Government hospital ..... 21  Government health center ..... 22  Government dispensary ..... 23  Other public (<i>specify</i>) ..... 26</p> <p>Private medical sector  Mission hospital/clinic ..... 31  Private hospital/clinic ..... 32  Nursing/maternity home ..... 33  Other private medical (<i>specify</i>) ..... 36</p> <p>Other (<i>specify</i>) ..... 96</p>	<p>98  —► MN8C</p>
<p>MN8A. HOW LONG AFTER (name) WAS DELIVERED DID YOU STAY THERE?</p> <p><i>If less than one day, record hours.</i></p> <p><i>If less than one week, record days.</i></p>	<p>Hours ..... 1 _ _  Days ..... 2 _ _  Weeks ..... 3 _ _  Don't know/remember ..... 998</p>	
<p>MN8B. WAS (name) DELIVERED BY CAESERIAN SECTION?</p>	<p>Yes ..... 1  No ..... 2</p>	<p>1—► MN8D  2—► MN8D</p>

<p>MN8C. WHY DIDN'T YOU DELIVER (name) IN A HEALTH FACILITY?</p> <p><i>Probe:</i> ANY OTHER REASON?</p> <p><i>Record all mentioned.</i></p>	<p>Cost too much..... A  Facility not open..... B  Too far..... C  Don't trust facility ..... D  No female provider at facility..... E  Husband/family did not allow..... F  Not necessary ..... G  Not customary..... H  No transportation ..... I  Poor quality service..... J</p> <p>Other (<i>specify</i>) ..... X</p>	
<p>MN8D. AFTER (name) WAS BORN, DID ANY HEALTH CARE PROVIDER OR A TRADITIONAL BIRTH ATTENDANT CHECK ON YOUR HEALTH?</p>	<p>Yes..... 1  No..... 2</p>	2 → MN8I
<p>MN8E. HOW LONG AFTER THE BIRTH OF (name) DID THIS FIRST CHECK TAKE PLACE?</p> <p><i>If less than one day, record hours.</i></p> <p><i>If less than one week, record days.</i></p>	<p>Hours..... 1 __ __  Days ..... 2 __ __  Weeks..... 3 __ __  Don't know/remember..... 998</p>	
<p>MN8F. WHO CHECKED ON YOUR HEALTH AT THAT TIME?</p> <p><i>Probe for most qualified person</i></p>	<p>Health professional  Doctor ..... 11  Community nurse ..... 12  Clinical officer ..... 13  Nurse/Midwife..... 14</p> <p>Other person  Traditional birth attendant..... 21  Community health worker..... 22</p> <p>Other (<i>specify</i>) ..... 96</p>	
<p>MN8G. WHERE DID THIS FIRST CHECK TAKE PLACE?</p> <p><i>Probe to identify the type of source and circle the appropriate code.</i></p> <p><i>If unable to determine if a hospital, health centre, or clinic is public or private medical, write the name of the place</i></p> <p>_____</p> <p>(Name of place)</p>	<p>Your home ..... 11  Other home ..... 12</p> <p>Public Sector  Government hospital ..... 21  Government health center..... 22  Government dispensary..... 23  Other public (<i>specify</i>)..... 26</p> <p>Private medical sector  Mission hospital/clinic ..... 31  Private hospital/clinic..... 32  Nursing/maternity home ..... 33  Pharmacy..... 34  Other private medical (<i>specify</i>) ..... 36</p> <p>Other (<i>specify</i>) ..... 96</p> <p>DK ..... 98</p>	
<p>MN8H. WAS THE HEALTH OF (name) ALSO CHECKED AT THIS TIME?</p>	<p>Yes..... 1  No..... 2</p>	2 → MN8I

MN8H2. WAS THIS ALSO THE FIRST TIME ( <i>name's</i> ) HEALTH WAS CHECKED?	Yes..... 1 No..... 2	1—►MN9 2—►MN8J
MN8I. AFTER ( <i>name</i> ) WAS BORN, DID ANY HEALTH CARE PROVIDER OR A TRADITIONAL BIRTH ATTENDANT CHECK ON HIS/HER HEALTH?	Yes..... 1 No..... 2 DK..... 8	2—►MN9 8—►MN9
MN8J. HOW LONG AFTER THE BIRTH OF ( <i>name</i> ) DID THIS FIRST CHECK TAKE PLACE?  <i>If less than one day, record hours.</i>  <i>If less than one week, record days.</i>	Hours..... 1 __ __ Days..... 2 __ __ Weeks..... 3 __ __ Don't know/remember..... 998	
MN8K. WHO CHECKED ON ( <i>name's</i> ) HEALTH AT THAT TIME?  <i>Probe for most qualified person</i>	Health professional Doctor..... 11 Community nurse..... 12 Clinical officer..... 13 Nurse/Midwife..... 14  Other person Traditional birth attendant..... 21 Community health worker..... 22  Other ( <i>specify</i> )..... 96	
MN8L. WHERE DID THIS FIRST CHECK TAKE PLACE?  <i>Probe to identify the type of source and circle the appropriate code.</i>  <i>If unable to determine if a hospital, health centre, or clinic is public or private medical, write the name of the place</i>  _____ (Name of place)	Your home..... 11 Other home..... 12 Public Sector Government hospital..... 21 Government health center..... 22 Government dispensary..... 23 Other public ( <i>specify</i> )..... 26  Private medical sector Mission hospital/clinic..... 31 Private hospital/clinic..... 32 Nursing/maternity home..... 33 Pharmacy..... 34 Other private medical ( <i>specify</i> )..... 36  Other ( <i>specify</i> )..... 96 DK..... 98	
MN8M. WERE YOU PRESENT WHEN THIS FIRST CHECK TOOK PLACE?	Yes..... 1 No..... 2	
MN9. WHEN YOUR LAST CHILD ( <i>name</i> ) WAS BORN, WAS HE/SHE VERY LARGE, LARGER THAN AVERAGE, AVERAGE, SMALLER THAN AVERAGE, OR VERY SMALL?	Very large..... 1 Larger than average..... 2 Average..... 3 Smaller than average..... 4 Very small..... 5 DK..... 8	

<p>MN10. WAS (name) WEIGHED AT BIRTH?</p>	<p>Yes..... 1  No..... 2  DK..... 8</p>	<p>2—►MN12  8—►MN12</p>
<p>MN11. HOW MUCH DID (name) WEIGH?   <i>Record weight from health card, if available.</i></p>	<p>From card..... 1 (kilograms) __ . __ __ __  From recall..... 2 (kilograms) __ . __ __ __  DK..... 99998</p>	
<p>MN12. DID YOU EVER BREASTFEED (name)?</p>	<p>Yes..... 1  No..... 2</p>	<p>2—►NEXT MODULE</p>
<p>MN13. 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></p>	<p>Immediately..... 000  Hours..... 1 __ __  Days ..... 2 __ __  Don't know/remember..... 998</p>	

MARRIAGE/UNION		MA
MA1. ARE YOU CURRENTLY MARRIED OR LIVING TOGETHER WITH A MAN AS IF MARRIED?	Yes, currently married..... 1 Yes, living with a man ..... 2 No, not in union ..... 3	3—►MA3
MA2. HOW OLD WAS YOUR HUSBAND/PARTNER ON HIS LAST BIRTHDAY?	Age in years..... __ __ DK 98	
MA2A. DOES YOUR HUSBAND/PARTNER HAVE ANY OTHER WIVES?	Yes ..... 1 No ..... 2	2—►MA5
MA2B. BESIDES YOURSELF, HOW MANY OTHER WIVES DOES HE HAVE?	Number..... __ __ DK ..... 98	—►MA5 98—►MA5
MA3. HAVE YOU EVER BEEN MARRIED OR LIVED TOGETHER WITH A MAN?	Yes, formerly married ..... 1 Yes, formerly lived with a man..... 2 No ..... 3	—►NEXT MODULE
MA4. WHAT IS YOUR MARITAL STATUS NOW: ARE YOU WIDOWED, DIVORCED OR SEPARATED?	Widowed ..... 1 Divorced ..... 2 Separated ..... 3	
MA5. HAVE YOU BEEN MARRIED OR LIVED WITH A MAN ONLY ONCE OR MORE THAN ONCE?	Only once ..... 1 More than once ..... 2	
MA6. IN WHAT MONTH AND YEAR DID YOU FIRST MARRY OR START LIVING WITH A MAN AS IF MARRIED?	Month ..... __ __ DK month ..... 98 Year..... __ __ __ __ DK year..... 9998	
MA7. Check MA6:  [ ] Both month and year of marriage/union known? —► Go to Next Module  [ ] Either month or year of marriage/union not known? —► Continue with MA8		
MA8. HOW OLD WERE YOU WHEN YOU STARTED LIVING WITH YOUR FIRST HUSBAND/PARTNER?	Age in years..... __ __	

CONTRACEPTION		CP
<p>CP1. I WOULD LIKE TO TALK WITH YOU ABOUT ANOTHER SUBJECT – FAMILY PLANNING – AND YOUR REPRODUCTIVE HEALTH.</p> <p>ARE YOU PREGNANT NOW?</p>	<p>Yes, currently pregnant..... 1</p> <p>No ..... 2</p> <p>Unsure or DK..... 8</p>	<p>2 → CP2</p> <p>8 → CP2</p>
<p>CP1A. AT THE TIME YOU BECAME PREGNANT DID YOU WANT TO BECOME PREGNANT <u>THEN</u>, DID YOU WANT TO WAIT UNTIL <u>LATER</u>, OR DID YOU NOT WANT TO HAVE ANY MORE CHILDREN?</p>	<p>Then..... 1</p> <p>Later ..... 2</p> <p>Not want more children ..... 3</p>	<p>1 → CP4B</p> <p>2 → CP4B</p> <p>3 → CP4B</p>
<p>CP2. SOME PEOPLE USE VARIOUS WAYS OR METHODS TO DELAY OR AVOID A PREGNANCY. 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 → CP4A</p>
<p>CP3. WHICH METHOD ARE YOU USING?</p> <p><i>Do not prompt. If more than one method is mentioned, circle each one.</i></p>	<p>Female sterilization..... A</p> <p>Male sterilization..... B</p> <p>Pill C</p> <p>IUD ..... D</p> <p>Injections ..... E</p> <p>Implants..... F</p> <p>Condom..... G</p> <p>Female condom..... H</p> <p>Diaphragm..... I</p> <p>Foam/jelly ..... J</p> <p>Lactational amenorrhea method (LAM)..... K</p> <p>Periodic abstinence..... L</p> <p>Withdrawal..... M</p> <p>Other (<i>specify</i>) ..... X</p>	
<p>CP3B. Check CP3:</p> <p>[ ] Currently using “Female sterilization”? → Go to Next Module</p> <p>[ ] Not currently using “Female sterilization” → Continue with CP4A</p>		

<p>CP4A. NOW I WOULD LIKE TO ASK 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>CP4B. <i>If currently pregnant:</i> 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 (a/another) child ..... 1</p> <p>No more/none ..... 2</p> <p>Says she cannot get pregnant ..... 3</p> <p>Undecided/don't know ..... 8</p>	<p>2—▶CP4D</p> <p>3—▶CP4F</p> <p>8—▶CP4D</p>
<p>CP4C. 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>After marriage..... 995</p> <p>Other..... 996</p> <p>Don't know ..... 998</p>	<p>994—▶CP4F</p>
<p>CP4D. <i>Check CP1:</i></p> <p>[ ] <i>Currently pregnant?</i> —▶ <i>Go to Next Module</i></p> <p>[ ] <i>Not currently pregnant or unsure?</i> —▶ <i>Continue with CP4D2</i></p>		
<p>CP4D2. <i>Check CP3.</i></p> <p>[ ] <i>Currently using a method?</i> —▶ <i>Go to Next Module</i></p> <p>[ ] <i>Not using a method (CP3 Blank)?</i> —▶ <i>Continue with CP4E</i></p>		
<p>CP4E. DO YOU THINK YOU ARE PHYSICALLY ABLE TO GET PREGNANT AT THIS TIME?</p>	<p>Yes..... 1</p> <p>No ..... 2</p> <p>DK ..... 8</p>	<p>1—▶NEXT MODULE</p> <p>8—▶NEXT MODULE</p>
<p>CP4F. WHAT IS THE REASON YOU THINK YOU CANNOT GET PREGNANT?</p>	<p>Infrequent sex/No sex ..... 01</p> <p>Menopausal..... 02</p> <p>Hysterectomy ..... 03</p> <p>Subfecund / Infecund..... 04</p> <p>Postpartum amenorrheic..... 05</p> <p>Breastfeeding ..... 06</p> <p>Too old..... 07</p> <p>Fatalistic ..... 08</p> <p>Other (<i>specify</i>) ..... 96</p> <p>DK .....98</p>	

FEMALE GENITAL MUTILATION/CUTTING		FG
FG1. HAVE YOU EVER HEARD OF FEMALE CIRCUMCISION?	Yes ..... 1 No ..... 2	1—►FG3
FG2. IN A NUMBER OF COUNTRIES, THERE IS A PRACTICE IN WHICH A GIRL MAY HAVE PART OF HER GENITALS CUT. HAVE YOU EVER HEARD ABOUT THIS PRACTICE?	Yes ..... 1 No ..... 2	2—►NEXT MODULE
FG3. HAVE YOU YOURSELF EVER BEEN CIRCUMCISED?	Yes ..... 1 No ..... 2	2—►FG8
FG4. NOW I WOULD LIKE TO ASK YOU WHAT WAS DONE TO YOU AT THIS 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 (OR 'SEALED')?	Yes ..... 1 No ..... 2 DK ..... 8	
FG7. WHO CIRCUMCISED YOU?	Traditional persons Traditional 'circumciser' ..... 11 Traditional birth attendant ..... 12 Other traditional ( <i>specify</i> ) ..... 16  Health professional Doctor ..... 21 Nurse/midwife ..... 22 Other health professional ( <i>specify</i> ) ..... 26  DK ..... 98	
FG8. <i>The following questions apply only to women who have at least one living daughter. Check CM4 and CM6, Child Mortality Module: Woman has living daughter?</i>  [ ] Yes. —► Continue with FG9  [ ] No. —► Go to FG16		
FG9. HAVE (ANY OF) YOUR DAUGHTER(S) BEEN CIRCUMCISED?  IF YES, HOW MANY?	Number of daughters circumcised: ..... __ __  No daughters circumcised ..... 00	00—►FG16
FG10. TO WHICH OF YOUR DAUGHTERS DID THIS HAPPEN MOST RECENTLY?  <i>Record the daughter's name.</i>	Name of daughter: .....	

<p>FG11. NOW I WOULD LIKE TO ASK YOU WHAT WAS DONE TO <i>(name)</i> AT THAT TIME.</p> <p>WAS ANY FLESH REMOVED FROM THE GENITAL AREA?</p>	<p>Yes ..... 1  No ..... 2</p> <p>DK ..... 8</p>	<p>1—►FG13</p>
<p>FG12. WAS THE GENITAL AREA JUST NICKED WITHOUT REMOVING ANY FLESH?</p>	<p>Yes ..... 1  No ..... 2  DK ..... 8</p>	
<p>FG13. WAS THE GENITAL AREA SEWN CLOSED?</p> <p><i>If necessary, Probe:</i>  WAS IT SEALED?</p>	<p>Yes ..... 1  No ..... 2</p> <p>DK ..... 8</p>	
<p>FG14. HOW OLD WAS <i>(name)</i> WHEN THIS OCCURRED?</p> <p><i>If the respondent does not know the age, probe to get an estimate.</i></p>	<p>Daughter's age at circumcision ..... _ _</p> <p>DK ..... 98</p>	
<p>FG15. WHO DID THE CIRCUMCISION?</p>	<p>Traditional persons  Traditional 'circumciser' ..... 11  Traditional birth attendant ..... 12  Other traditional (<i>specify</i>) ..... 16</p> <p>Health professional  Doctor ..... 21  Nurse/midwife ..... 22  Other health professional (<i>specify</i>) ..... 26</p> <p>DK ..... 98</p>	
<p>FG16. DO YOU THINK THIS PRACTICE SHOULD BE CONTINUED OR SHOULD IT BE DISCONTINUED?</p>	<p>Continued ..... 1  Discontinued ..... 2  Depends ..... 3</p> <p>DK ..... 8</p>	

ATTITUDES TOWARD DOMESTIC VIOLENCE				FG
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:				
		Yes	No	DK
A. IF SHE LEAVES THE HOUSE WITHOUT TELLING HIM?	Leaves without telling.....	1	2	8
B. IF SHE NEGLECTS THE CHILDREN?	Neglects children.....	1	2	8
C. IF SHE ARGUES WITH HIM?	Argues .....	1	2	8
D. IF SHE REFUSES SEX WITH HIM?	Refuses sex.....	1	2	8
E. IF SHE BURNS THE FOOD?	Burns food.....	1	2	8

SEXUAL BEHAVIOUR		SB
<i>Check for the presence of others. Before continuing, ensure privacy.</i>		
SB1. NOW I NEED TO ASK YOU SOME QUESTIONS ABOUT SEXUAL ACTIVITY IN ORDER TO GAIN A BETTER UNDERSTANDING OF SOME FAMILY LIFE ISSUES.  THE INFORMATION YOU SUPPLY WILL REMAIN STRICTLY CONFIDENTIAL.  HOW OLD WERE YOU WHEN YOU FIRST HAD SEXUAL INTERCOURSE (IF EVER)?	Never had intercourse ..... 00  Age in years..... _ _  First time when started living with (first) husband/partner..... 95	00—►NEXT MODULE
SB2. WHEN WAS THE LAST TIME YOU HAD SEXUAL INTERCOURSE?  <i>Record 'years ago' only if last intercourse was one or more years ago. If 12 months or more the answer must be recorded in years.</i>	Days ago ..... 1 _ _  Weeks ago..... 2 _ _  Months ago ..... 3 _ _  Years ago..... 4 _ _	4—►NEXT MODULE
SB3. THE LAST TIME YOU HAD SEXUAL INTERCOURSE WAS A CONDOM USED?	Yes..... 1 No ..... 2	
SB4. WHAT IS YOUR RELATIONSHIP TO THE MAN WITH WHOM YOU LAST HAD SEXUAL INTERCOURSE?  <i>If man is 'boyfriend' or 'fiancée', ask:            WAS YOUR BOYFRIEND/ FIANCÉE LIVING WITH YOU WHEN YOU LAST HAD SEX?            If 'yes', circle 1.            If 'no', circle 2.</i>	Spouse / cohabiting partner..... 1 Man is boyfriend / fiancée ..... 2 Other friend ..... 3 Casual acquaintance..... 4  Other (specify) ..... 6	1—►SB6
SB5. HOW OLD IS THIS PERSON?  <i>If response is DK, probe:            ABOUT HOW OLD IS THIS PERSON?</i>	Age of sexual partner ..... _ _  DK ..... 98	
SB6. HAVE YOU HAD SEX WITH ANY OTHER MAN IN THE LAST 12 MONTHS?	Yes..... 1 No ..... 2	2—►NEXT MODULE
SB7. THE LAST TIME YOU HAD SEXUAL INTERCOURSE WITH THIS OTHER MAN, WAS A CONDOM USED?	Yes..... 1 No ..... 2	

<p>SB8. WHAT IS YOUR RELATIONSHIP TO THIS MAN?</p> <p><i>If man is 'boyfriend' or 'fiancée', ask:</i>  WAS YOUR BOYFRIEND/ FIANCÉE LIVING WITH YOU WHEN YOU LAST HAD SEX?  <i>If 'yes', circle 1.</i>  <i>If 'no', circle 2.</i></p>	<p>Spouse / cohabiting partner..... 1  Man is boyfriend / fiancée ..... 2  Other friend ..... 3  Casual acquaintance ..... 4    Other (<i>specify</i>) ..... 6</p>	<p>1—►SB10</p>
<p>SB9. HOW OLD IS THIS PERSON?</p> <p><i>If response is DK, probe:</i>  ABOUT HOW OLD IS THIS PERSON?</p>	<p>Age of sexual partner ..... _ _  DK ..... 98</p>	
<p>SB10. OTHER THAN THESE TWO MEN, HAVE YOU HAD SEX WITH ANY OTHER MAN IN THE LAST 12 MONTHS?</p>	<p>Yes ..... 1  No ..... 2</p>	<p>2—►NEXT MODULE</p>
<p>SB11. IN TOTAL, WITH HOW MANY DIFFERENT MEN HAVE YOU HAD SEX IN THE LAST 12 MONTHS?</p>	<p>No. of partners ..... _ _</p>	

HIV/AIDS		HA
HA1. NOW I WOULD LIKE TO TALK WITH YOU ABOUT SOMETHING ELSE.	Yes ..... 1 No ..... 2	2—▶NEXT MODULE
HAVE YOU EVER HEARD OF THE VIRUS HIV OR AN ILLNESS CALLED AIDS?		
HA2. CAN PEOPLE PROTECT THEMSELVES FROM GETTING INFECTED WITH THE AIDS VIRUS BY HAVING ONE SEX PARTNER WHO IS NOT INFECTED AND ALSO HAS NO OTHER PARTNERS?	Yes ..... 1 No ..... 2 DK ..... 8	
HA3. CAN PEOPLE GET INFECTED WITH 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 REDUCE THEIR CHANCE OF GETTING INFECTED WITH THE AIDS VIRUS BY NOT HAVING SEX AT ALL?	Yes ..... 1 No ..... 2 DK ..... 8	
HA7. CAN PEOPLE GET THE AIDS VIRUS BY SHARING FOOD WITH A PERSON WHO HAS AIDS?	Yes ..... 1 No ..... 2 DK ..... 8	
HA7A. CAN PEOPLE GET THE AIDS VIRUS BY GETTING INJECTIONS WITH A NEEDLE THAT WAS ALREADY USED BY SOMEONE ELSE?	Yes ..... 1 No ..... 2 DK ..... 8	
HA8. IS IT POSSIBLE FOR A HEALTHY-LOOKING PERSON TO HAVE THE AIDS VIRUS?	Yes ..... 1 No ..... 2 DK ..... 8	
HA9. CAN THE AIDS VIRUS BE TRANSMITTED FROM A MOTHER TO A BABY?		
A. DURING PREGNANCY?	Yes No DK During pregnancy ..... 1 2 8	
B. DURING DELIVERY?	During delivery ..... 1 2 8	
C. BY BREASTFEEDING?	By breastfeeding ..... 1 2 8	

HA10. 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	
HA11. 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	
HA12. IF A MEMBER OF YOUR FAMILY BECAME INFECTED WITH THE AIDS VIRUS, WOULD YOU WANT IT TO REMAIN A SECRET?	Yes, keep secret ..... 1 No ..... 2 DK /not sure/depends ..... 8	
HA13. IF A MEMBER OF YOUR FAMILY BECAME SICK WITH THE AIDS VIRUS, WOULD YOU BE WILLING TO CARE FOR HIM OR HER IN YOUR HOUSEHOLD?	Yes..... 1 No ..... 2 DK /not sure/depends ..... 8	
HA14. <i>Check MN5: Tested for HIV during antenatal care?</i>  [ ] Yes. → Go to HA18A  [ ] No. → Continue with HA15		
HA15. I DO NOT WANT TO KNOW THE RESULTS, BUT HAVE YOU EVER BEEN TESTED TO SEE IF YOU HAVE HIV, THE VIRUS THAT CAUSES AIDS?	Yes..... 1 No ..... 2	2→HA18
HA16. I DO NOT WANT YOU TO TELL ME THE RESULTS OF THE TEST, BUT HAVE YOU BEEN TOLD THE RESULTS?	Yes..... 1 No ..... 2	
HA17. DID YOU, YOURSELF, ASK FOR THE TEST, WAS IT OFFERED TO YOU AND YOU ACCEPTED, OR WAS IT REQUIRED?	Asked for the test ..... 1 Offered and accepted ..... 2 Required ..... 3	1→NEXT MODULE 2→NEXT MODULE 3→NEXT MODULE
HA18. AT THIS TIME, DO YOU KNOW OF A PLACE WHERE YOU CAN GO TO GET SUCH A TEST TO SEE IF YOU HAVE THE AIDS VIRUS?  HA18A. If tested for HIV during antenatal care: OTHER THAN AT THE ANTENATAL CLINIC, DO YOU KNOW OF A PLACE WHERE YOU CAN GO TO GET A TEST TO SEE IF YOU HAVE THE AIDS VIRUS?	Yes..... 1 No ..... 2	

WT2. Record the time.	Hour and minutes ___ : ___
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**REMARKS AND OBSERVATIONS**

SUPERVISOR

FIELD EDITOR

FIELD MONITORS/CO-ORDINATORS

OFFICE EDITOR

# QUESTIONNAIRE FOR CHILDREN UNDER FIVE

<b>UNDER-FIVE CHILD INFORMATION PANEL</b>		<b>UF</b>
<p><i>This questionnaire is to be administered to all mothers or caretakers (see household listing, column HL8) who care for a child that lives with them and is under the age of 5 years (see household listing, column HL5). A separate questionnaire should be used for each eligible child. Fill in the cluster and household number, and names and line numbers of the child and the mother/caretaker in the space below. Insert your own name and number, and the date.</i></p>		
UF-A. Province Name & Code: _____	UF-B. County Name & Code: _____	
UF-C. District Name & Code: _____		
UF1. Cluster number: _____	UF2. Household number: _____	
UF3. Child's Name: _____	UF4. Child's Line Number: _____	
UF5. Mother's/Caretaker's Name: _____	UF6. Mother's/Caretaker's Line Number: _____	
UF7. Interviewer name and number: _____	UF8. Day/Month/Year of interview: ____/____/_____	
<p><i>Repeat greeting if not already read to this respondent:</i></p> <p>WE ARE FROM KENYA NATIONAL BUREAU OF STATISTICS (KNBS). WE ARE WORKING ON A PROJECT CONCERNED WITH FAMILY HEALTH AND EDUCATION. I WOULD LIKE TO TALK TO YOU ABOUT THIS. THE INTERVIEW USUALLY TAKES AROUND 20-25 MINUTES. ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND YOUR ANSWERS WILL NEVER BE IDENTIFIED. ALSO, YOU ARE NOT OBLIGED TO ANSWER ANY QUESTION YOU DON'T WANT TO, AND YOU MAY WITHDRAW FROM THE INTERVIEW AT ANY TIME. MAY I START NOW?</p> <p><i>If permission is given, begin the interview. If the respondent does not agree to continue, thank him/her and go to the next interview. Discuss this result with your supervisor for a future revisit.</i></p>		
UF9. Result of interview for children under 5 (Codes refer to mother/caretaker.)	Completed.....1 Not at home.....2 Refused .....3 Partly completed .....4 Incapacitated.....5 Other (specify) .....6	
<p><i>Interviewer/editor/supervisor notes: Use this space to record notes about the interview with this household, such as call-back times, incomplete individual interview forms, number of attempts to re-visit, etc.</i></p>		
UF91. Supervisor (name and number): Name _____	UF92. Field edited by (name and number): Name _____	
UUF93. Data Entry (name and number): Name _____		
UF9A. Record the time.	Hour and minutes..... : ____ : ____	

<p>UF10. NOW I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT THE HEALTH OF EACH CHILD UNDER THE AGE OF 5 IN YOUR CARE, WHO LIVES WITH YOU NOW. NOW I WANT TO ASK YOU ABOUT <i>(name)</i>. IN WHAT MONTH AND YEAR WAS <i>(name)</i> BORN? <i>Probe:</i> WHAT IS HIS/HER BIRTHDAY?</p> <p><i>If the mother/caretaker knows the exact birth date, also enter the day; otherwise, circle 98 for day</i></p> <p><b>MONTH AND YEAR MUST BE RECORDED.</b></p>	<p>Date of birth:</p> <p>Day ..... _ _</p> <p>DK day ..... 98</p> <p>Month..... _ _</p> <p>Year..... _ _ _ _</p>	
<p>UF11. HOW OLD WAS <i>(name)</i> AT HIS/HER LAST BIRTHDAY? <i>Record age in completed years.</i></p>	<p>Age in completed years..... _</p>	

BIRTH REGISTRATION AND EARLY LEARNING		BR
BR1. DOES ( <i>name</i> ) HAVE A BIRTH CERTIFICATE? MAY I SEE IT?	Yes, seen ..... 1 Yes, not seen ..... 2 No ..... 3 DK ..... 8	1 → BR5
BR2. HAS ( <i>name's</i> ) BIRTH BEEN NOTIFIED OR REGISTERED WITH THE CIVIL AUTHORITIES?	Yes ..... 1 No ..... 2 DK ..... 8	1 → BR5 8 → BR4
BR3. WHY IS ( <i>name's</i> ) BIRTH NOT REGISTERED?	Costs too much ..... 1 Must travel too far ..... 2 Did not know it should be registered ..... 3 Did not want to pay fine ..... 4 Does not know where to register ..... 5  Other ( <i>specify</i> ) ..... 6 DK ..... 8	
BR4. DO YOU KNOW HOW TO REGISTER YOUR CHILD'S BIRTH?	Yes ..... 1 No ..... 2	
BR5. Check age of child in UF11: Child is 3 or 4 years old?  [ ] Yes. → Continue with BR6  [ ] No. → Go to BR8		
BR6. DOES ( <i>name</i> ) ATTEND ANY ORGANIZED LEARNING OR EARLY CHILDHOOD EDUCATION PROGRAMME, SUCH AS A PRIVATE OR GOVERNMENT FACILITY, INCLUDING KINDERGARTEN OR COMMUNITY CHILD CARE?	Yes ..... 1 No ..... 2 DK ..... 8	2 → BR8 8 → BR8
BR7. SINCE ( <i>day of the week</i> ), EXCLUDING TODAY, ABOUT HOW MANY HOURS DID ( <i>name</i> ) ATTEND?	No. of hours..... _ _	

<p>BR8. IN THE PAST 3 DAYS, DID YOU OR ANY HOUSEHOLD MEMBER OVER 15 YEARS OF AGE ENGAGE IN ANY OF THE FOLLOWING ACTIVITIES WITH <i>(name)</i>:</p> <p><i>For each item:</i>  <i>If yes, ask: WHO ENGAGED IN THIS ACTIVITY WITH (name) - THE MOTHER, THE CHILD'S FATHER OR ANOTHER ADULT MEMBER OF THE HOUSEHOLD (INCLUDING THE CARETAKER/RESPONDENT)?</i>  <i>Circle all that apply.</i></p> <p>BR8A. READ BOOKS, LOOK AT PICTURE BOOKS, OR TELL STORIES TO/WITH <i>(name)</i>?  BR8D. TAKE <i>(name)</i> OUTSIDE THE HOME, COMPOUND, YARD OR ENCLOSURE?  BR8E. PLAY WITH <i>(name)</i>?  BR8F. NAME, COUNT, OR DRAW THINGS TO/WITH <i>(name)</i>?</p>	<table border="1"> <thead> <tr> <th></th> <th>Mother</th> <th>Father</th> <th>Other</th> <th>No one</th> </tr> </thead> <tbody> <tr> <td>Books/Stories</td> <td>A</td> <td>B</td> <td>X</td> <td>Y</td> </tr> <tr> <td>Take outside</td> <td>A</td> <td>B</td> <td>X</td> <td>Y</td> </tr> <tr> <td>Play with</td> <td>A</td> <td>B</td> <td>X</td> <td>Y</td> </tr> <tr> <td>Name/count</td> <td>A</td> <td>B</td> <td>X</td> <td>Y</td> </tr> </tbody> </table>		Mother	Father	Other	No one	Books/Stories	A	B	X	Y	Take outside	A	B	X	Y	Play with	A	B	X	Y	Name/count	A	B	X	Y	
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Name/count	A	B	X	Y																							

CHILD DEVELOPMENT		CE																
<p>CE2. HOW MANY CHILDREN'S BOOKS OR PICTURE BOOKS DO YOU HAVE FOR <i>(name)</i>?</p> <p>If 'none' enter 0</p>	<p>Number of children's books .....0 __</p> <p>Ten or more books ..... 10</p>	1 → BR5																
<p>CE3. I AM INTERESTED IN LEARNING ABOUT THE THINGS THAT <i>(name)</i> PLAYS WITH WHEN HE/SHE IS AT HOME.</p> <p>WHAT DOES <i>(name)</i> PLAY WITH?</p> <p>DOES HE/SHE PLAY WITH?</p> <p>HOUSEHOLD OBJECTS OR OBJECTS FOUND OUTSIDE (SUCH AS BOWLS OR POTS, STICKS, ROCKS, ANIMAL SHELLS OR LEAVES)?</p> <p>HOMEMADE TOYS (SUCH AS DOLLS, CARS, OR OTHER TOYS MADE AT HOME)?</p> <p>TOYS THAT CAME FROM A SHOP?</p> <p><i>If the respondent says "YES" to the categories above, then probe to learn specifically what the child plays with to ascertain the response</i></p>	<table border="0"> <thead> <tr> <th></th> <th>Y</th> <th>N</th> <th>DK</th> </tr> </thead> <tbody> <tr> <td>Household objects or outside objects</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>Homemade toys</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>Toys that came from a shop</td> <td>1</td> <td>2</td> <td>8</td> </tr> </tbody> </table>		Y	N	DK	Household objects or outside objects	1	2	8	Homemade toys	1	2	8	Toys that came from a shop	1	2	8	
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<p>CE4. 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.</p> <p>ON HOW MANY DAYS IN THE PAST WEEK WAS <i>(name)</i>:</p> <p>LEFT ALONE?</p> <p>LEFT IN THE CARE OF ANOTHER CHILD (THAT IS, SOMEONE LESS THAN 10 YEARS OLD)?</p> <p><i>If 'none' enter 0</i></p>	<p>Number of days left alone .....</p> <p>Number of days left with other child .....</p>																	
<p>CE5. Check UF11: Age of child 3 or 4?</p> <p><input type="checkbox"/> Age 0, 1 or 2 → Go to Next Module</p> <p><input type="checkbox"/> Age 3 or 4 → Continue with CE6</p>																		

<p>CE6. 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.</p> <p>CAN (<i>name</i>) IDENTIFY/NAME AT LEAST TEN LETTERS OF THE ALPHABET?</p>	<p>Yes ..... 1  No ..... 2  DK ..... 8</p>	
<p>CE7. CAN (<i>name</i>) ATTACH SOUNDS TO MOST OR MORE THAN HALF OF THE LETTERS?</p>	<p>Yes ..... 1  No ..... 2  DK ..... 8</p>	
<p>CE8. CAN (<i>name</i>) READ AT LEAST FOUR SIMPLE, ONE-SYLLABLE, POPULAR WORDS?</p>	<p>Yes ..... 1  No ..... 2  DK ..... 8</p>	
<p>CE9. IS (<i>name</i>) INTERESTED IN NUMBERS, COUNTING, SORTING OR ADDING?</p>	<p>Yes ..... 1  No ..... 2  DK ..... 8</p>	
<p>CE10. DOES (<i>name</i>) KNOW THE NAME AND RECOGNIZE THE SYMBOL OF ALL NUMBERS FROM 1 TO 10 MOST OF THE TIME?</p>	<p>Yes ..... 1  No ..... 2  DK ..... 8</p>	
<p>CE11. WHEN YOU COMPARE TWO NUMBERS UP TO 10, DOES (<i>name</i>) KNOW WHICH ONE IS BIGGER MOST OF THE TIME?</p>	<p>Yes ..... 1  No ..... 2  DK ..... 8</p>	
<p>CE12. IS (<i>name</i>) ABLE TO USE AND MANIPULATE SMALL OBJECTS AND TOYS?</p>	<p>Yes ..... 1  No ..... 2  DK ..... 8</p>	
<p>CE13. IS (<i>name</i>) SOMETIMES TOO TIRED, SLEEPY OR SICK TO PLAY?</p>	<p>Yes ..... 1  No ..... 2  DK ..... 8</p>	
<p>CE14. IS (<i>name</i>) SOMETIMES TOO HUNGRY TO PLAY?</p>	<p>Yes ..... 1  No ..... 2  DK ..... 8</p>	
<p>CE15. DOES (<i>name</i>) DO EVERYDAY ROUTINE ACTIVITIES WITHOUT BEING REMINDED? ACTIVITIES SUCH AS BRUSHING TEETH, TIDYING UP AFTER PLAY OR A MEAL, OR HELPING WITH CHORES?</p> <p><i>If yes:</i> WOULD YOU SAY OFTEN OR SOMETIMES?</p>	<p>Often/Most of the time ..... 1  Sometimes ..... 2  Rarely or never ..... 3  DK ..... 8</p>	

<p>CE16. DOES (<i>name</i>) FOLLOW SIMPLE DIRECTIONS ON HOW TO DO SOMETHING CORRECTLY?</p> <p><i>If yes: WOULD YOU SAY OFTEN OR SOMETIMES?</i></p>	<p>Often/Most of the time ..... 1  Sometimes ..... 2  Rarely or never ..... 3    DK ..... 8</p>	
<p>CE17. IS (<i>name</i>) ABLE TO WORK ON A TASK, INCLUDING PLAY TASKS, BY HIMSELF/HERSELF?</p> <p><i>If yes: WOULD YOU SAY OFTEN OR SOMETIMES?</i></p>	<p>Often/Most of the time ..... 1  Sometimes ..... 2  Rarely or never ..... 3    DK ..... 8</p>	
<p>CE18. DOES (<i>name</i>) PLAY WITH SIBLINGS OR OTHER CHILDREN FOR A CONSIDERABLE TIME WITHOUT GETTING INTO TROUBLE?</p> <p><i>If yes: WOULD YOU SAY OFTEN OR SOMETIMES?</i></p>	<p>Often/Most of the time ..... 1  Sometimes ..... 2  Rarely or never ..... 3    DK ..... 8</p>	
<p>CE19. DOES (<i>name</i>) SHOW RESPECT FOR OTHER CHILDREN?</p> <p><i>Probe:</i>  DOES (<i>name</i>) LISTEN TO WHAT ANOTHER CHILD HAS TO SAY AND RECOGNIZE THAT HE OR SHE MAY BE DIFFERENT OR WANT DIFFERENT THINGS?</p> <p><i>If yes: WOULD YOU SAY OFTEN OR SOMETIMES?</i></p>	<p>Often/Most of the time ..... 1  Sometimes ..... 2  Rarely or never ..... 3    DK ..... 8</p>	
<p>CE20. WHAT IS (<i>name</i>)'S ABILITY TO GET ALONG WITH OTHER CHILDREN? WOULD YOU SAY IT IS VERY GOOD, AVERAGE, OR POOR/BAD?</p>	<p>Very good ..... 1  Average ..... 2  Poor/Bad ..... 3    DK ..... 8</p>	
<p>CE21. HOW OFTEN DOES (<i>name</i>) BULLY OTHER CHILDREN OR IS MEAN TO OTHER CHILDREN?</p> <p><i>Probe:</i>  DOES (<i>name</i>) OFTEN MAKE OTHER CHILDREN AFRAID OF HIM/HER, OR SAY MEAN/BAD WORDS TO OTHER CHILDREN?</p> <p><i>If yes: WOULD YOU SAY OFTEN OR SOMETIMES?</i></p>	<p>Often/Most of the time ..... 1  Sometimes ..... 2  Rarely or never ..... 3    DK ..... 8</p>	

<p>CE22. HOW OFTEN DOES <i>(name)</i> KICK, BITE, OR HIT OTHER CHILDREN OR ADULTS?</p> <p><i>If yes:</i> WOULD YOU SAY OFTEN OR SOMETIMES?</p>	<p>Often/Most of the time ..... 1 Sometimes ..... 2 Rarely or never ..... 3</p> <p>DK ..... 8</p>	
<p>CE23. DOES <i>(name)</i> OFTEN GET VERY EASILY/QUICKLY DISTRACTED?</p> <p><i>If yes:</i> WOULD YOU SAY OFTEN OR SOMETIMES?</p>	<p>Often/Most of the time ..... 1 Sometimes ..... 2 Rarely or never ..... 3</p> <p>DK ..... 8</p>	

VITAMIN A		VA
VA1. HAS ( <i>name</i> ) EVER RECEIVED A VITAMIN A CAPSULE (SUPPLEMENT) LIKE THIS ONE?  <i>Show capsule or dispenser for different doses – 100,000 IU for those 6-11 months old (Blue), 200,000 IU for those 12-59 months old.(Red)</i>	Yes..... 1 No ..... 2  DK ..... 8	2—►NEXT MODULE  8—►NEXT MODULE
VA2. HOW MANY MONTHS AGO DID ( <i>name</i> ) TAKE THE LAST DOSE?	Months ago ..... __ __ DK ..... 98	
VA3. WHERE DID ( <i>name</i> ) GET THIS LAST DOSE?	On routine visit to health facility ..... 1 Sick child visit to health facility ..... 2 National Immunization Day campaign..... 3  Other ( <i>specify</i> ) ..... 6 DK ..... 8	

BREASTFEEDING		BF																																																																															
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																																																																																
<p>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.</p> <p>DID (<i>name</i>) DRINK OR EAT ANY (<i>item from list</i>): YESTERDAY, DURING THE DAY OR NIGHT?</p> <p><i>Read each item aloud and record response before proceeding to the next item. Ask the number of times the child had infant formula, milk, yogurt and solid, semi-solid foods.</i></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;"></th> <th style="width: 10%; text-align: center;">Y</th> <th style="width: 10%; text-align: center;">N</th> <th style="width: 10%; text-align: center;">DK</th> <th></th> </tr> </thead> <tbody> <tr> <td>BF3A. VITAMIN OR MINERAL SUPPLEMENTS?</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> <td></td> </tr> <tr> <td>BF3B. ORS (ORAL REHYDRATION SOLUTION)?</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> <td></td> <td></td> </tr> <tr> <td>BF3C. PLAIN WATER?</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> <td></td> </tr> <tr> <td>BF3D. INFANT FORMULA?</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> <td>2 OR 8 → BF3E</td> </tr> <tr> <td>BF3D1. HOW MANY TIMES DID (<i>name</i>) HAVE INFANT FORMULA?</td> <td colspan="3" style="text-align: center;">Number of times..... _ _</td> <td></td> </tr> <tr> <td>BF3E. MILK SUCH AS TINNED, POWDERED, OR FRESH ANIMAL MILK?</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> <td>2 OR 8 → BF3F</td> </tr> <tr> <td>BF3E1. HOW MANY TIMES DID (<i>name</i>) DRINK TINNED, POWDERED OR FRESH ANIMAL MILK?</td> <td colspan="3" style="text-align: center;">Number of times..... _ _</td> <td></td> </tr> <tr> <td>BF3F. JUICE OR JUICE DRINKS?</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> <td></td> </tr> <tr> <td>BF3G. SOUP?</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> <td></td> </tr> <tr> <td>BF3H. ANY OTHER LIQUIDS?</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> <td></td> </tr> <tr> <td>BF3I. YOGURT?</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> <td>2 OR 8 → BF3J</td> </tr> <tr> <td>BF3I1. HOW MANY TIMES DID (<i>name</i>) HAVE YOGURT?</td> <td colspan="3" style="text-align: center;">Number of times..... _ _</td> <td></td> </tr> <tr> <td>BF3J. THIN PORRIDGE?</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> <td></td> </tr> <tr> <td>BF3K. SOLID OR SEMI-SOLID (MUSHY) FOOD?</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> <td>2 OR 8 → BF3L</td> </tr> <tr> <td>BF3K1. HOW MANY TIMES DID (<i>name</i>) EAT SOLID, SEMI-SOLID (MUSHY) FOODS?</td> <td colspan="3" style="text-align: center;">Number of times..... _ _</td> <td></td> </tr> </tbody> </table>		Y	N	DK		BF3A. VITAMIN OR MINERAL SUPPLEMENTS?	1	2	8		BF3B. ORS (ORAL REHYDRATION SOLUTION)?	2	8			BF3C. PLAIN WATER?	1	2	8		BF3D. INFANT FORMULA?	1	2	8	2 OR 8 → BF3E	BF3D1. HOW MANY TIMES DID ( <i>name</i> ) HAVE INFANT FORMULA?	Number of times..... _ _				BF3E. MILK SUCH AS TINNED, POWDERED, OR FRESH ANIMAL MILK?	1	2	8	2 OR 8 → BF3F	BF3E1. HOW MANY TIMES DID ( <i>name</i> ) DRINK TINNED, POWDERED OR FRESH ANIMAL MILK?	Number of times..... _ _				BF3F. JUICE OR JUICE DRINKS?	1	2	8		BF3G. SOUP?	1	2	8		BF3H. ANY OTHER LIQUIDS?	1	2	8		BF3I. YOGURT?	1	2	8	2 OR 8 → BF3J	BF3I1. HOW MANY TIMES DID ( <i>name</i> ) HAVE YOGURT?	Number of times..... _ _				BF3J. THIN PORRIDGE?	1	2	8		BF3K. SOLID OR SEMI-SOLID (MUSHY) FOOD?	1	2	8	2 OR 8 → BF3L	BF3K1. HOW MANY TIMES DID ( <i>name</i> ) EAT SOLID, SEMI-SOLID (MUSHY) FOODS?	Number of times..... _ _				
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BF3L. DID ( <i>name</i> ) DRINK ANYTHING FROM A BOTTLE WITH A NIPPLE YESTERDAY DURING THE DAY OR NIGHT?	Yes .....1 No .....2  DK .....8																																																																																

CARE OF ILLNESS		CA																
CA1. HAS ( <i>name</i> ) HAD DIARRHOEA IN THE LAST TWO WEEKS, THAT IS, SINCE (day of the week) OF THE WEEK BEFORE LAST?  <i>Diarrhoea is determined as perceived by mother or caretaker, or as three or more loose or watery stools per day, or blood in stool.</i>	Yes..... 1 No ..... 2  DK ..... 8	2—►CA5  8—►CA5																
CA1A. WAS THERE BLOOD IN THE STOOLS?	Yes..... 1 No ..... 2  DK ..... 8																	
CA2. DURING THIS LAST EPISODE OF DIARRHOEA, DID ( <i>name</i> ) DRINK ANY OF THE FOLLOWING:  <i>Read each item aloud and record response before proceeding to the next item.</i>																		
CA2A. A FLUID MADE FROM A SPECIAL PACKET CALLED ORS? CA2B. HOMEMADE SUGAR AND SALT SOLUTION? CA2C. A PRE-PACKAGED ORS FLUID FOR DIARRHOEA?	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;"></th> <th style="width: 10%; text-align: center;">Yes</th> <th style="width: 10%; text-align: center;">No</th> <th style="width: 10%; text-align: center;">DK</th> </tr> </thead> <tbody> <tr> <td>A. Fluid from ORS packet.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>B. Sugar and salt solution .....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>C. Pre-packaged ORS fluid.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> </tbody> </table>		Yes	No	DK	A. Fluid from ORS packet.....	1	2	8	B. Sugar and salt solution .....	1	2	8	C. Pre-packaged ORS fluid.....	1	2	8	
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C. Pre-packaged ORS fluid.....	1	2	8															
CA2D. WAS ANYTHING (ELSE) GIVEN TO TREAT THE DIARRHOEA?	Yes..... 1 No ..... 2  DK ..... 8	2—►CA3  8—►CA3																
CA2E. WHAT (ELSE) WAS GIVEN TO TREAT THE DIARRHOEA?  <i>Probe:</i> ANYTHING ELSE?  <i>Record all treatments given</i>	Pill or Syrup Antibiotic.....A Antimotility.....B Zinc.....C Other (Not antibiotic, antimotility or zinc).....D Unknown pill or syrup.....E  Injection Antibiotic.....F Non-antibiotic.....G Unknown injection.....H  Intravenous.....I Home remedy/herbal medicine.....J  Other ( <i>specify</i> ).....X																	

CA2F. Check CA2E: Zinc given?		
[ ] Yes. —▶ Continue with CA2G		
[ ] No. —▶ Go to CA3		
CA2G. HOW MANY TIMES WAS (name) GIVEN ZINC?	Number of times..... _ _	
CA3. DURING (name's) ILLNESS, DID HE/SHE DRINK MUCH LESS, ABOUT THE SAME, OR MORE THAN USUAL?	Much less or none ..... 1 About the same (or somewhat less) ..... 2 More ..... 3 DK ..... 8	
CA4. DURING (name's) ILLNESS, DID HE/SHE EAT LESS, ABOUT THE SAME, OR MORE FOOD THAN USUAL?  <i>If "less", probe:</i> MUCH LESS OR A LITTLE LESS?	None ..... 1 Much less ..... 2 Somewhat less ..... 3 About the same ..... 4 More ..... 5 DK ..... 8	
CA4B. WHERE DID YOU GET THE ORS PACKET FROM?  _____ (Name of place)	Public Sector Government hospital ..... 21 Government health center ..... 22 Government dispensary ..... 23 Other public ( <i>specify</i> ) ..... 26  Private medical sector Mission hospital/clinic ..... 31 Private hospital/clinic ..... 32 Nursing/maternity home ..... 33 Pharmacy ..... 34 Other private medical ( <i>specify</i> ) ..... 36  Mobile clinic ..... 41 Community health worker ..... 42  Other source Shop ..... 51 Traditional practitioner ..... 52 Relative/friend ..... 53  Other ( <i>specify</i> ) ..... 96 DK ..... 98	
CA4C. HOW MUCH DID YOU PAY FOR THE ( <i>local name for ORS packet from CA2A</i> )?	Shillings ..... _ _ _ _ Free ..... 9995 DK ..... 9998	
CA5. HAS (name) HAD AN ILLNESS WITH A COUGH AT ANY TIME IN THE LAST TWO WEEKS, THAT IS, SINCE ( <i>day of the week</i> ) OF THE WEEK BEFORE LAST?	Yes ..... 1 No ..... 2 DK ..... 8	2—▶CA12 8—▶CA12

<p>CA6. WHEN (<i>name</i>) HAD AN ILLNESS WITH A COUGH, DID HE/SHE BREATHE FASTER THAN USUAL WITH SHORT, QUICK BREATHS OR HAVE DIFFICULTY BREATHING?</p>	<p>Yes ..... 1  No ..... 2  DK ..... 8</p>	<p>2 → CA12  8 → CA12</p>
<p>CA7. WERE THE SYMPTOMS DUE TO A PROBLEM IN THE CHEST OR A BLOCKED NOSE?</p>	<p>Problem in chest ..... 1  Blocked nose..... 2  Both ..... 3  Other (<i>specify</i>) ..... 6  DK ..... 8</p>	<p>2 → CA12  6 → CA12</p>
<p>CA8. DID YOU SEEK ADVICE OR TREATMENT FOR THE ILLNESS OUTSIDE THE HOME?</p>	<p>Yes ..... 1  No ..... 2  DK ..... 8</p>	<p>2 → CA12  8 → CA12</p>
<p>CA9. FROM WHERE DID YOU SEEK CARE?</p> <p><i>Probe:</i>  ANYWHERE ELSE?</p> <p><i>Circle all providers mentioned, but do NOT prompt with any suggestions.</i></p> <p><i>If source is hospital, health center, or clinic, write the name of the place below. Probe to identify the type of source and circle the appropriate code.</i></p> <p>_____</p> <p>(Name of place)</p>	<p>Public Sector  Government hospital ..... C  Government health center ..... D  Government dispensary ..... E  Other public (<i>specify</i>) ..... F</p> <p>Private medical sector  Mission hospital/clinic ..... G  Private hospital/clinic ..... H  Nursing/maternity home ..... I  Pharmacy ..... J  Other private medical (<i>specify</i>) ..... K</p> <p>Mobile clinic ..... L  Community health worker ..... M</p> <p>Other source  Shop ..... O  Traditional practitioner ..... P  Relative/friend ..... Q</p> <p>Other (<i>specify</i>) ..... X</p>	
<p>CA10. WAS (<i>name</i>) GIVEN MEDICINE TO TREAT THIS ILLNESS?</p>	<p>Yes ..... 1  No ..... 2  DK ..... 8</p>	<p>2 → CA12  8 → CA12</p>
<p>CA11. WHAT MEDICINE WAS (<i>name</i>) GIVEN?</p> <p><i>Probe:</i>  ANYTHING ELSE?</p> <p><i>Circle all medicines given.</i></p>	<p>Antibiotic ..... A  Paracetamol/Panadol/Acetaminophen ..... P  Aspirin ..... Q  Ibuprofen ..... R  Other (<i>specify</i>) ..... X  DK ..... Z</p>	
<p>CA11A. Check CA11: Antibiotic given?</p> <p>[ ] Yes. → Continue with CA11B</p> <p>[ ] No. → Go to CA12</p>		

<p>CA11B. WHERE DID YOU GET THE ANTIBIOTIC?</p> <hr/> <p>(Name of place)</p>	<p>Public Sector</p> <p>Government hospital ..... 21</p> <p>Government health center ..... 22</p> <p>Government dispensary..... 23</p> <p>Other public (<i>specify</i>) ..... 26</p> <p>Private medical sector</p> <p>Mission hospital/clinic ..... 31</p> <p>Private hospital/clinic..... 32</p> <p>Nursing/maternity home ..... 33</p> <p>Pharmacy..... 34</p> <p>Other private medical (<i>specify</i>) ..... 36</p> <p>Mobile clinic ..... 41</p> <p>Community health worker ..... 42</p> <p>Other source</p> <p>Shop ..... 51</p> <p>Traditional practitioner ..... 52</p> <p>Relative/friend..... 53</p> <p>Other (<i>specify</i>) ..... 96</p> <p>DK ..... 98</p>	
<p>CA11C. HOW MUCH DID YOU PAY FOR THE ANTIBIOTIC?</p>	<p>Shillings ..... _ _ _ _</p> <p>Free ..... 9995</p> <p>DK ..... 9998</p>	
<p>CA12. Check UF11: Child aged under 3?</p> <p>[ ] Yes. —► Continue with CA13</p> <p>[ ] No. —► Go to Next Module</p>		
<p>CA13. THE LAST TIME (<i>name</i>) PASSED STOOLS, WHAT WAS DONE TO DISPOSE OF THE STOOLS?</p>	<p>Child used toilet/latrine..... 01</p> <p>Put/rinsed into toilet or latrine ..... 02</p> <p>Put/rinsed into drain or ditch..... 03</p> <p>Thrown into garbage (solid waste) ..... 04</p> <p>Buried ..... 05</p> <p>Left in the open ..... 06</p> <p>Other (<i>specify</i>) ..... 96</p> <p>DK ..... 98</p>	

MALARIA		ML
ML1. IN THE LAST TWO WEEKS, THAT IS, SINCE ( <i>day of the week</i> ) OF THE WEEK BEFORE LAST, HAS ( <i>name</i> ) BEEN ILL WITH A FEVER?	Yes..... 1 No ..... 2 DK ..... 8	2—▶NEXT MODULE 8—▶NEXT MODULE
ML2. WAS ( <i>name</i> ) SEEN AT A HEALTH FACILITY DURING THIS ILLNESS?	Yes..... 1 No ..... 2 DK ..... 8	2—▶ML6 8—▶ML6
ML3. DID ( <i>name</i> ) TAKE MEDICINE FOR FEVER OR MALARIA THAT WAS PROVIDED OR PRESCRIBED AT THE HEALTH FACILITY?	Yes..... 1 No ..... 2 DK ..... 8	2—▶ML5 8—▶ML5
ML4. WHAT MEDICINE DID ( <i>name</i> ) TAKE THAT WAS PROVIDED OR PRESCRIBED AT THE HEALTH FACILITY?  <i>Probe:</i> ANYTHING ELSE?  <i>Circle all medicines mentioned.</i>	Anti-malarials: SP/Fansidar .....A Chloroquine .....B Amodiaquine.....C Quinine.....D Artemisinin-based combinations ..... E Other anti-malarial ( <i>specify</i> ) .....H  Other medications: Paracetamol/Panadol/Acetaminophen ..... P Aspirin.....Q Ibuprofen.....R  Other ( <i>specify</i> ) ..... X DK Z	
ML5. WAS ( <i>name</i> ) GIVEN MEDICINE FOR THE FEVER OR MALARIA BEFORE BEING TAKEN TO THE HEALTH FACILITY?	Yes..... 1 No ..... 2 DK ..... 8	1—▶ML7 2—▶ML8 8—▶ML8
ML6. WAS ( <i>name</i> ) GIVEN MEDICINE FOR FEVER OR MALARIA DURING THIS ILLNESS?	Yes..... 1 No ..... 2 DK ..... 8	2—▶ML8 8—▶ML8
ML7. WHAT MEDICINE WAS ( <i>name</i> ) GIVEN?  <i>Circle all medicines given. Ask to see the medication if type is not known. If type of medication is still not determined, show typical anti-malarials to respondent.</i>	Anti-malarials: SP/Fansidar .....A Chloroquine .....B Amodiaquine.....C Quinine.....D Artemisinin-based combinations ..... E Other anti-malarial ( <i>specify</i> ) .....H  Other medications: Paracetamol/Panadol/Acetaminophen ..... P Aspirin.....Q Ibuprofen.....R  Other ( <i>specify</i> ) ..... X DK Z	

<p>ML8. Check ML4 and ML7: Anti-malarial mentioned (codes A - H)?</p> <p>[ ] Yes. → Continue with ML9</p> <p>[ ] No. → Go to Next Module</p>		
<p>ML9. HOW LONG AFTER THE FEVER STARTED DID (name) FIRST TAKE (name of anti-malarial from ML4 or ML7)?</p> <p><i>If multiple anti-malarials mentioned in ML4 or ML7, name all anti-malarial medicines mentioned.</i></p> <p><i>Record the code for the day on which the first anti-malarial was given.</i></p>	<p>Same day ..... 0</p> <p>Next day ..... 1</p> <p>2 days after the fever..... 2</p> <p>3 days after the fever..... 3</p> <p>4 or more days after the fever ..... 4</p> <p>DK ..... 8</p>	
<p>ML9A. WHERE DID YOU GET THE (name of anti-malarial from ML4 or ML7)?</p> <p><i>If more than one anti-malarial is mentioned in ML4 or ML7, refer to the first anti-malarial given for the fever (the anti-malarial given on the day recorded in ML9).</i></p> <p>_____</p> <p><i>(Name of place)</i></p>	<p>Public Sector</p> <p>Government hospital ..... 21</p> <p>Government health center ..... 22</p> <p>Government dispensary..... 23</p> <p>Other public (<i>specify</i>) ..... 26</p> <p>Private medical sector</p> <p>Mission hospital/clinic ..... 31</p> <p>Private hospital/clinic..... 32</p> <p>Nursing/maternity home ..... 33</p> <p>Pharmacy..... 34</p> <p>Other private medical (<i>specify</i>) ..... 36</p> <p>Mobile clinic ..... 41</p> <p>Community health worker ..... 42</p> <p>Other source</p> <p>Shop ..... 51</p> <p>Traditional practitioner ..... 52</p> <p>Relative/friend..... 53</p> <p>Other (<i>specify</i>) ..... 96</p> <p>DK ..... 98</p>	
<p>ML9B. HOW MUCH DID YOU PAY FOR THE (name of anti-malarial from ML4 or ML7)?</p> <p><i>Refer to the same anti-malarial as in ML9A above</i></p>	<p>Shillings ..... _ _ _ _</p> <p>Free ..... 9996</p> <p>DK ..... 9998</p>	

IMMUNIZATION										IM
<i>If an immunization card is available, copy the dates in IM2-IM8B for each type of immunization or vitamin A dose recorded on the card. IM10-IM18 will only be asked when a card is not available or not shown.</i>										
IM1. IS THERE A VACCINATION CARD FOR (name)?		Yes, seen ..... 1 Yes, not seen ..... 2 No ..... 3							2 → IM10 3 → IM10	
(a) Copy dates for each vaccination from the card. (b) <b>Write '44' in day column</b> if card shows that vaccination was given but no date recorded.		Date of Immunization								
		DAY		MONTH		YEAR				
IM2.	BCG	BCG								
IM3A.	POLIO AT BIRTH	OPV0								
IM3B.	POLIO 1	OPV1								
IM3C.	POLIO 2	OPV2								
IM3D.	POLIO 3	OPV3								
IM4A.	DPT1-HepB + Hib: 1 (Pentavalent-1)	DPT1								
IM4B.	DPT1-HepB + Hib: 2 (Pentavalent-2)	DPT2								
IM4C.	DPT1-HepB + Hib: 3 (Pentavalent-3)	DPT3								
IM6.	MEASLES	MEASLES								
IM7.	YELLOW FEVER	YF								
IM8A.	VITAMIN A (1) (Last but one)	VITA1								
IM8B.	VITAMIN A (2) (Most recent)	VITA2								
IM9. IN ADDITION TO THE VACCINATIONS AND VITAMIN A CAPSULES SHOWN ON THIS CARD, DID (name) RECEIVE ANY OTHER VACCINATIONS – INCLUDING VACCINATIONS RECEIVED IN CAMPAIGNS OR IMMUNIZATION DAYS? <i>Record 'Yes' only if respondent mentions BCG, OPV 0-3, DPT 1-3, Hepatitis B 1-3, Measles, Yellow Fever vaccine(s), or Vitamin A supplements</i>		Yes ..... 1 <i>(Probe for vaccinations and write '66' in the corresponding day column on IM2 to IM8B.)</i> No ..... 2 DK ..... 8							1 → IM19 2 → IM19 8 → IM19	
IM10. HAS (name) EVER RECEIVED ANY VACCINATIONS TO PREVENT HIM/HER FROM GETTING DISEASES, INCLUDING VACCINATIONS RECEIVED IN A CAMPAIGN OR IMMUNIZATION DAY?		Yes ..... 1 No ..... 2 DK ..... 8							2 → IM19 8 → IM19	

IM11. HAS ( <i>name</i> ) EVER BEEN GIVEN A BCG VACCINATION AGAINST TUBERCULOSIS – THAT IS, AN INJECTION IN THE ARM OR SHOULDER THAT CAUSED A SCAR?	Yes..... 1 No ..... 2 DK ..... 8	
IM12. HAS ( <i>name</i> ) EVER BEEN GIVEN ANY POLIO VACCINATION, THAT IS, VACCINATION DROPS IN THE MOUTH TO PROTECT HIM/HER FROM GETTING DISEASES?	Yes..... 1 No ..... 2 DK ..... 8	2—►IM15 8—►M15
IM13. HOW OLD WAS HE/ SHE WHEN THE FIRST DOSE WAS GIVEN – WITHIN THE TWO WEEKS AFTER BIRTH OR LATER?	Just after birth (within two weeks)..... 1 Later ..... 2	
IM14. HOW MANY TIMES HAS HE/SHE BEEN GIVEN THESE DROPS?	No. of times..... _ _	
IM15. HAS ( <i>name</i> ) EVER BEEN GIVEN “DPT VACCINATION INJECTIONS” – THAT IS, AN INJECTION IN THE THIGH OR BUTTOCKS – TO PREVENT HIM/HER FROM GETTING TETANUS, WHOOPING COUGH, DIPHTHERIA? (SOMETIMES GIVEN AT THE SAME TIME AS POLIO)	Yes..... 1 No ..... 2 DK ..... 8	2—►IM17 8—►IM17
IM16. HOW MANY TIMES?	No. of times..... _ _	
IM17. HAS ( <i>name</i> ) EVER BEEN GIVEN “MEASLES VACCINATION INJECTIONS” – THAT IS, A SHOT IN THE ARM AT THE AGE OF 9 MONTHS OR OLDER - TO PREVENT HIM/HER FROM GETTING MEASLES?	Yes..... 1 No ..... 2 DK ..... 8	
IM18. HAS ( <i>name</i> ) EVER BEEN GIVEN “YELLOW FEVER VACCINATION INJECTIONS” – THAT IS, A SHOT IN THE ARM AT THE AGE OF 9 MONTHS OR OLDER - TO PREVENT HIM/HER FROM GETTING YELLOW FEVER? (SOMETIMES GIVEN AT THE SAME TIME AS MEASLES)	Yes..... 1 No ..... 2 DK ..... 8	

IM19. Please tell me if ( <i>name</i> ) has participated in any of the following campaigns, national immunization days and/or vitamin A or child health days:				
		Y	N	DK
IM19A. National Immunization Day in 2010?	National Imm Day 2010 .....	1	2	8
IM19B. Malezibora, in May 2010?	Malezibora May 2010 .....	1	2	8
IM19C. Malezibora, in November 2010?	Malezibora Nov 2010 .....	1	2	8

UT2. Record the time.	Hour and minutes    __ __ : __ __
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<p>IM20. Does another eligible child reside in the household for whom this respondent is mother/caretaker? Check household listing, column HL8.</p> <p>[ ] Yes. —► End the current questionnaire and then Go to Under-5 Questionnaire to administer the questionnaire for the next eligible child.</p> <p>[ ] No. —► End the interview with this respondent by thanking him/her for his/her cooperation. If this is the last eligible child in the household, go on to ANTHROPOMETRY MODULE.</p>
--

ANTHROPOMETRY MODULE		NA	
<p>After questionnaires for all children are complete, the measurer weighs and measures each child. Record weight and length/height below, taking care to record the measurements on the correct questionnaire for each child. Check the child's name and line number on the household listing before recording measurements.</p>			
AN0A. Measurer's identification code.	Measurer code .....		
AN0B. Result of measurement	Measured..... 1	2—►ANS5	
	Not present..... 2		
	Refused ..... 3		3—►ANS5
	Other (specify) ..... 6		6—►ANS5
AN1. Child's weight	Kilograms (kg) .....[ ] [ ] . [ ]		
AN2. Child's length or height.	Length (cm) Lying down .....1 [ ] [ ] [ ] . [ ]		
Check age of child in UF11:  [ ] Child under 2 years old. —► Measure length (lying down).  [ ] Child age 2 or more years. —► Measure height (standing up).	Height (cm) Standing up .....2 [ ] [ ] [ ] . [ ]		
AN3. WHETHER THE CHILD IS HAVING OEDEMA? (OBSERVE AND RECORD)	Checked Oedema present ..... 1 Oedema not present..... 2 Unsure ..... 3  Not checked (specify reason) ..... 7		

AN5. Is there another child in the household who is eligible for measurement?

[ ] Yes. —► Record measurements for next child.

[ ] No. —► End the interview with this household by thanking all participants for their cooperation.

Gather together all questionnaires for this household and check that all identification numbers are inserted on each page. Tally on the Household Information Panel the number of interviews completed.

## REMARKS AND OBSERVATIONS

SUPERVISOR

FIELD EDITOR

FIELD MONITORS/CO-ORDINATORS

OFFICE EDITOR

Kenya, Migori County  
Multiple Indicator Cluster Survey  
2011