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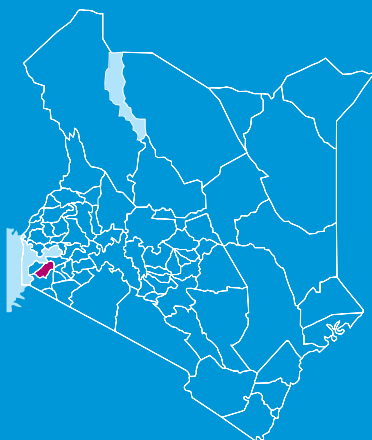
Monitoring the situation of children and women

Multiple Indicator Cluster Survey
2011

Homa Bay County

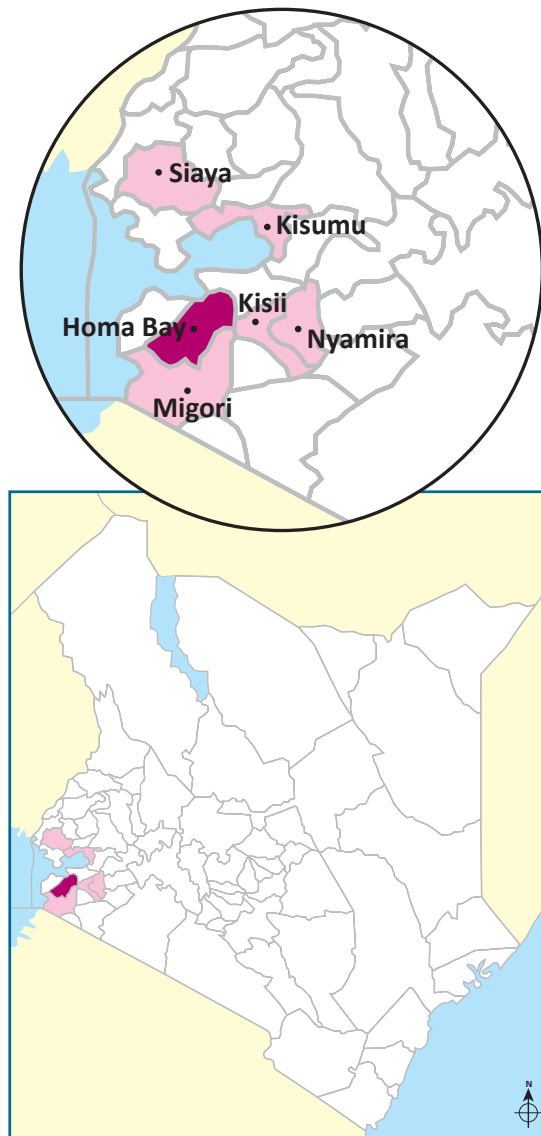## Multiple Indicator Cluster Survey 2011

Siaya

Kisumu

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Homa Bay

Nyamira

Migori

July, 2013

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MICS

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Keeping you informed

The Homa Bay County Multiple Indicator Cluster Survey (MICS) was carried out by the 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 Homa Bay 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. 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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List of Abbreviations

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	Diptheria Pertusis 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. Inspite 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 Homa Bay 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 Homa Bay 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

The Homa Bay 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 Homa Bay County 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 1182 households was collected from 5,010 household members with 2,436 males and 2,574 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 summary of the findings from the survey are presented below.

Child Mortality

For the ten years preceding the survey, the neonatal, infant and under-five mortality rates are 26, 51 and 130 deaths per 1000 live births respectively. The estimated child mortality rate is 57 deaths per 1000 children surviving to the first birthday in the same period.

Nutritional Status and Breastfeeding

Going by WHO standards, approximately 15 per cent of children under age five in Homa Bay are moderately underweight whilst 2 per cent are classified as severely underweight. About one in four (26 per cent) are moderately stunted or too short for their age whilst more than 1 in 10 (11 per cent) are severely stunted. 4 per cent are moderately wasted or too thin for their height, whilst approximately 2 per cent are classified as overweight.

Only 41 per cent of babies in Homa Bay County are promptly breastfed for the first time (within one hour of birth), and only 35 per cent of children aged less than six months being exclusively breastfed. Only half (50 per cent) of children, aged less than 2 years, are given food appropriate for their age. It is noteworthy that despite the risk of contamination, bottle feeding is still occurring in Homa Bay county, with 13 per cent of children aged 0-23 months reported to have been fed using a bottle with a nipple.

Only 46 per cent of children in Homa Bay County are weighed at birth and it is estimated that 5 per cent are born with low birth weight.

Iodization and Vitamin A supplementation

All households in Homa Bay County consume salt containing the recommended levels of iodine (15 PPM).

Within the six months preceding MICS, 42 per cent of children aged 6-59 months received a high dose Vitamin A supplement.

Immunization

Only 54 per cent of children in Homa Bay County receive the recommended vaccinations by their first birthday. Notably, 3 per cent of the children have 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. Just over 74 per cent of women who have had a live birth in the last 2 years are protected against tetanus.

Care of illness

About 16 per cent of under-five children had diarrhoea in the two weeks preceding the survey. Only 37 per cent of children with diarrhoea receive oral rehydration solutions (ORS) or other recommended homemade fluids, a proportion markedly lower than that reported in the 2008/9

KDHS report (above 70 per cent at both national and provincial levels).

Nine per cent of children aged 0-59 months were reported to have had symptoms of pneumonia during the two weeks preceding the survey. About half (50 per cent) of children with suspected pneumonia are taken to an appropriate provider. Only 61 per cent of under-5 children with suspected pneumonia had received an antibiotic during the two weeks prior to the survey.

Malaria prevention

The level of net ownership in Homa Bay County is high with 92 per cent of households having at least one insecticide treated net and 94 per cent having at least one mosquito net. About 4 in every 5 children under the age of five slept under any mosquito net the night prior to the survey and 77 per cent slept under an insecticide treated net. The findings reveal a marked improvement in the levels of net use when compared to levels reported in the 2008/9 KDHS survey (only 47 per cent for ITNs use nationally and 61 per cent in Nyanza Province) and are consistent with the rapid scale up of ITNs reported in the region. Similarly, 77 per cent of pregnant women slept under any mosquito net the night prior to the survey and 74 per cent slept under an insecticide treated net, a marked improvement in net use amongst pregnant mothers compared to levels reported in the 2008/9 KDHS (45 per cent for any net and 41 per cent for ITNS at national level and 63 per cent for any net and 58 per cent for ITNS in Nyanza province).

About 30 per cent of under five children were ill with fever in the two weeks prior to the survey. Overall, 32 per cent of children who have had fever in the last two weeks are treated with artemisinin combination drugs (the recommended first line antimalarials). Of these, only 32 per cent of children received anti-malarial drugs within 24 hours or on the next day after onset of symptoms, a remarkable improvement from the 2008/9 KDHS in which the corresponding proportions were estimated to be 11 per cent at national level and 15 per cent for Nyanza province.

Only 44 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 25percent received the recommended IPT dose (2 or more times).

Solid fuel use

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

Water and sanitation

Thirty five per cent of the Homa Bay population uses drinking water from an improved source. The main improved source of drinking water is public tap/stand pipe, whereas for unimproved drinking water supply it is surface water. More than 7 out of 10 (71 per cent) of those who use unimproved drinking water sources use an appropriate water treatment method, most commonly adding bleach/chlorine (54 per cent).

About 55 per cent of the population use improved sanitation facilities; 33 per cent using a pit latrine with slab, 7 per cent use ventilated improved pit latrine whilst 10 per cent use the flush system. The pit latrine without a slab is the most commonly used unimproved sanitation facility particularly in the rural areas (43 per cent). Less than 10 per cent of the household populations have no sanitation facilities.

In 78 per cent of cases, stool of children age 0-2 years are disposed of safely. 11 per cent of households have designated hand washing places observed and both soap and water was present in 69 per cent of the households.

Reproductive health

The total fertility rate is 5.2 children per woman which is comparable to the 2008/9 KDHS Nyanza provincial level of 5.4 children per woman but higher than the national average of 4.6 children per

woman in the three year period before the survey. The adolescent birth rate is 203 births per 1000 women during the same period. ASFR is highest in the 20 to 24 age group. 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 40 per cent and is higher than the 2008/9 KDHS Nyanza provincial level of 27 per cent and more than double the national level of 18 per cent. At least one in ten (10 per cent) women aged 15-49 years have had a live birth before age 15 while half (52 per cent) of women aged 20-49 years have had a live birth before age 18.
Forty per cent currently married or in union women use any modern contraceptive method while 2 per cent use traditional methods. Injectable contraceptives are by far the most popular method and are used by at least one in four (27 per cent) married women.

The coverage of antenatal care by any skilled personnel is relatively high with 93 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 (62 per cent). Almost nine in ten mothers (87 per cent) received antenatal care more than once whilst more than half of mothers (53 per cent) received antenatal care at least four times.

Almost half (47 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

In Homa Bay County, 51 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 23 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. Only 3 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. About 30 per cent of children aged 36-59 months are developmentally on track.

Literacy and Education

In Homa Bay County, among females age 15-24 only 74 per cent of women are literate. The literacy rate varies by place of residence (whether urban or rural), age and household wealth level. Only 78 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 72 per cent but transition to secondary school is 50.9 per cent. The net primary school attendance rate is 70 per cent, while that of secondary school stands at 12 per cent.

Child protection

Only 50 per cent of children under five years who live in Homa Bay County have their births registered. 10 per cent of mothers/caretakers reported they have not registered their children's birth though known how to register.

Overall, about 56 per cent of children aged 5 -14 years in Homa Bay are engaged in child labour. Of all children involved in child labour, 98 per cent are attending school. Almost 9 out of 10 children (89 per cent) of the children age 2-14 years are subjected to at least one form of violent discipline method by their mothers/caretakers while 4 out of 5 have received psychological aggression (81 per cent).

Sixteen per cent of women aged 15-49 years are married before age 15 and 58 per cent of 20-49 years are married before age of 18 years. One in every four (25 per cent) adolescent girls of ages 15-19 years old in Homa Bay are currently married or in union.

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

Close to 98 per cent of women aged 15-49 years in Homa Bay have heard about FGM/C and

outstandingly only two per cent has had FGM/C. Twenty one per cent of womenage 15-49 years agree that FGM/C should be continued.

Domestic violence

Seven out of every ten 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' (55 per cent) or 'if she argues with him' (48 per cent).

HIV and AIDS

Almost all women in Homa Bay County have heard of AIDS, however, only 49 per cent have comprehensive knowledge of HIV prevention methods and transmission.

Knowledge of mother-to-child transmission of HIV is near universal (94 per cent) however, only half (50 per cent) know of all three ways of transmission that we asked in this survey.

Stigma and discrimination are still fairly high in Homa Bay County as only 16 per cent of 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 place for HIV testing is nearly universal (94 per cent) however, only 53 per cent of women have ever been tested. Seventy seven per cent of all women who gave birth in the last two years preceding the survey received HIV counselling during antenatal care; only 73 per cent 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

Sixteen per cent of children below 18 years are not living with any biological parent and about 1 out of 4 (25 per cent) have one or both parents dead. About 1 in 10 (10 per cent) children aged 10-14 years have lost both parents and nearly all (99 per cent) of them are currently attending school which is similar to non-orphans. The ratio of school attendance for orphans to non-orphans is 0.99.

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	Units
SAMPLE					
Households			Households interviewed	1164	number
Women			Number of women interviewed	1033	number
Children			Number of children under 5 years with completed information	911	number
CHILD MORTALITY					
Child mortality	1.1	*4.1*	Under-five mortality rate	130	per thousand
	1.2	*4.2*	Infant mortality rate	77	per thousand
NUTRITION					
Nutritional status		*1.8*	Underweight prevalence		
	2.1a		Moderate and Severe (- 2 SD)	15.0	Per cent
	2.1b		Severe (- 3 SD)	2.2	Per cent
			Stunting prevalence		
	2.2a		Moderate and Severe (- 2 SD)	26.3	Per cent
	2.2b		Severe (- 3 SD)	10.7	Per cent
			Wasting prevalence		
	2.3a		Moderate and Severe (- 2 SD)	4.2	Per cent
	2.3b		Severe (- 3 SD)	0.8	Per cent
Breastfeeding and infant feeding	2.4		Children ever breastfed	97.7	Per cent
	2.5		Early initiation of breastfeeding	41.3	Per cent
	2.6		Exclusive breastfeeding under 6 months	35.0	Per cent
	2.7		Continued breastfeeding at 1 year	80.7	Per cent
	2.8		Continued breastfeeding at 2 years	36.8	Per cent
	2.9		Predominant breastfeeding under 6 months	53.8	Per cent
	2.10		Duration of breastfeeding	19.5	months
	2.11		Bottle feeding	12.5	Per cent
	2.13		Minimum meal frequency	27.0	Per cent
	2.14		Age-appropriate breastfeeding	50.0	Per cent
	2.15		Milk feeding frequency for non-breastfed children	18.9	Per cent
Salt iodization	2.16		Iodized salt consumption	83.5	Per cent
Vitamin A	2.17		Vitamin A supplementation (children under age 5)	41.7	Per cent
Low birth weight	2.18		Low-birthweight infants	5.1	Per cent

Topic	MICS4 Indicator Number	MDG Indicator Number	Indicator	Value and Units	
	2.19		Infants weighed at birth	45.8	Per cent
CHILD HEALTH					
Vaccinations	3.1		Tuberculosis immunization coverage	94.8	Per cent
	3.2		Polio immunization coverage	71.1	Per cent
	3.3		Immunization coverage for diphtheria, pertussis and tetanus (DPT)	62.8	Per cent
	3.4	*4.3*	Measles immunization coverage	79.3	Per cent
Tetanus toxoid	3.7		Neonatal tetanus protection	74.2	Per cent
Care of illness	3.8		Oral rehydration therapy with continued feeding	46.7	Per cent
	3.9		Care seeking for suspected pneumonia	50.0	Per cent
	3.10		Antibiotic treatment of suspected pneumonia	60.8	Per cent
Solid fuel use	3.11		Solid fuels	98.4	Per cent
Malaria	3.12		Household availability of insecticide-treated nets (ITNs)	92.3	Per cent
	3.13		Households protected by a vector control method	94.4	Per cent
	3.14		Children under age 5 sleeping under any mosquito net	78.8	Per cent
	3.15	*6.7*	Children under age 5 sleeping under insecticide-treated nets (ITNs)	76.8	Per cent
	3.17		Antimalarial treatment of children under 5 the same or next day	31.6	Per cent
	3.18	*6.8*	Antimalarial treatment of children under age 5	49.8	Per cent
	3.19		Pregnant women sleeping under insecticide-treated nets (ITNs)	74.2	Per cent
	3.20		Intermittent preventive treatment for malaria	24.9	Per cent
WATER AND SANITATION					
Water and sanitation	4.1	*7.8*	Use of improved drinking water sources	34.7	Per cent
	4.2		Water treatment	72.5	Per cent
	4.3	*7.9*	Use of improved sanitation facilities	14.6	Per cent
	4.4		Safe disposal of child's faeces	52.9	Per cent
	4.6		Availability of soap	84.6	Per cent
REPRODUCTIVE HEALTH					
Contraception and unmet need	5.1	*5.4*	Adolescent birth rate	203	per 1,000
	5.2		Early childbearing	47.3	Per cent
	5.3	*5.3*	Contraceptive prevalence rate	41.7	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	92.6	Per cent
	5.5b		At least four times by any provider	52.6	Per cent
	5.6		Content of antenatal care	55.5	Per cent
	5.7	*5.2*	Skilled attendant at delivery	42.4	Per cent
	5.8		Institutional deliveries	47.4	Per cent
	5.9		Caesarean section	7.3	Per cent
CHILD DEVELOPMENT					
Child development	6.1		Support for learning	23.1	Per cent
	6.2		Father's support for learning	13.3	Per cent
	6.3		Learning materials: children's books	2.6	Per cent
	6.4		Learning materials: playthings	64.9	Per cent
	6.5		Inadequate care	57.2	Per cent
	6.6		Early child development index	29.6	Per cent
	6.7		Attendance to early childhood education	50.9	Per cent
EDUCATION					
Literacy and education	7.1	*2.3*	Literacy rate among young women	74.3	Per cent
	7.2		School readiness	77.8	Per cent
	7.3		Net intake rate in primary education	11.3	Per cent
	7.4	*2.1*	Primary school net attendance ratio (adjusted)	66.9	Per cent
	7.5		Secondary school net attendance ratio(adjusted)	13.9	Per cent
	7.6	*2.2*	Children reaching last grade of primary	98.7	Per cent
	7.7		Primary completion rate	72.0	Per cent
	7.8		Transition rate to secondary school	50.9	Per cent
	7.9		Gender parity index (primary school)	1.05	ratio
	7.10		Gender parity index (secondary school)	0.86	ratio
CHILD PROTECTION					
Birth registration	8.1		Birth registration	49.9	Per cent
Child labour	8.2		Child labour	55.4	Per cent
	8.3		School attendance among child labourers	98.0	Per cent
	8.4		Child labour among students	56.0	Per cent
Child discipline	8.5		Violent discipline	93.0	Per cent

Topic	MICS4 Indicator Number	MDG Indicator Number	Indicator	Value and Units	
Early marriage and polygyny	8.6		Marriage before age 15	15.5	Per cent
	8.7		Marriage before age 18	58.3	Per cent
	8.8		Young women age 15-19 currently married or in union	25.0	Per cent
	8.9		Polygyny	0.0	Per cent
			Spousal age difference		
	8.10a		Women age 15-19	12.0	Per cent
	8.10b		Women age 20-24	15.6	Per cent
Female genital mutilation/cutting	8.11		Approval for female genital mutilation/cutting (FGM/C)	20.6	Per cent
	8.12		Prevalence of female genital mutilation/cutting (FGM/C) among women	1.8	Per cent
Domestic violence	8.14		Attitudes towards domestic violence	70.1	Per cent
HIV/AIDS, SEXUAL BEHAVIOUR, AND ORPHANED AND VULNERABLE CHILDREN					
HIV/AIDS knowledge and attitudes	9.1		Comprehensive knowledge about HIV prevention	47.7	Per cent
	9.2	*6.3*	Comprehensive knowledge about HIV prevention among young people	49.4	Per cent
	9.3		Knowledge of mother-to-child transmission of HIV	50.3	Per cent
	9.4		Accepting attitude towards people living with HIV	16.3	Per cent
	9.5		Women who know where to be tested for HIV	94.2	Per cent
	9.7		Sexually active young women who have been tested for HIV and know the results	39.0	Per cent
	9.8		HIV counselling during antenatal care	76.6	Per cent
	9.9		HIV testing during antenatal care	72.8	Per cent
Sexual behaviour	9.10		Young women who have never had sex	41.8	Per cent
	9.11		Sex before age 15 among young women	30.6	Per cent
	9.12		Age-mixing among sexual partners	12.4	Per cent
	9.13		Sex with multiple partners	3.5	Per cent
	9.14		Condom use during sex with multiple partners	46.7	Per cent
	9.15		Sex with non-regular partners	4.7	Per cent
Orphaned children	9.17		Children's living arrangements	16.1	Per cent
	9.18		Prevalence of children with at least one parent dead	24.5	Per cent
	9.19	*6.4*	School attendance of orphans	98.8	Per cent
	9.20	*6.4*	School attendance of non-orphans	99.3	Per cent

I.   Introduction

Background

This report is based on the Homa Bay 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 Homa Bay 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 inimplementing the provisions of this Declaration, and ask the Secretary-General to issue periodicreports 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 Homa Bay Multiple Indicator Cluster Survey has as its primary objectives:

- To provide up-to-date information for assessing the situation of children and women in Homa Bay 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 Homa Bay 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

Sample Design

The sample for the Homa Bay 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 Homa Bay County were identified as the main sampling strata and the sample was selected in two stages. Therefore, to attain the desired sample size, a two-stage stratified sampling design will be 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 by Probability Proportional to Size. 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 Homa Bay County. The sample was stratified by region, 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[1] 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[2]. From the MICS4 model English version, the questionnaires were translated into Swahili and Luo other languages spoken in Homa Bay County. A copy of the MICS questionnaires used in Homa Bay 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 handwashing and measured the weights and heights of children age under 5 years. 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 Homa Bay County within clusters that were not sampled for the main survey exercise.

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

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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

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Data Processing

Data were entered using the CSPro software. The data were entered on 43 microcomputers 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 Homa Bay 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, 1182 were found to be occupied. Of these, 1164 were successfully interviewed for a household response rate of 98.5 per cent. In the interviewed households, 1117women (age 15-49 years) were eligible. Of these, 1033 were successfully interviewed, yielding a response rate of 92.5 per cent within interviewed households. In addition, 926 children under age five were listed in the household questionnaire. Questionnaires were completed for 911 of these children, which corresponds to a response rate of 98.4 per cent within interviewed households. Overall response rates of 91.1and 96.9 are calculated for the women's and under-5's interviews respectively (Table HH.1).

Table HH.1: Results of household and individual interviews

Number of households, women, and children under 5 by results of the interviews, and household, women's and under-5's response rates, Homa Bay County, 2011	
Households	
Sampled	1250
Occupied	1182
Interviewed	1164
Household response rate	98.5
Women	
Eligible	1117
Interviewed	1033
Women's response rate	92.5
Women's overall response rate	91.1
Children under 5	
Eligible	926
Mothers/caretakers interviewed	911
Under-5's response rate	98.4
Under-5's overall response rate	96.9

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 1164 households successfully interviewed in the survey, 5010 household members were listed. Of these, 2436 were males, and 2574 were females. The age distribution from Table HH.2 shows that 50 per cent of the sampled households' population 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 Homa Bay County.

Table HH.2: Household age distribution by sex

		Males		Females		Missing		Total	
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, Nyanza Province, Kenya, 2011									
		Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Age	0-4	458	18.8	415.7	16.2	0	0	873	17.4
	5-9	437	17.9	413.7	16.1	0	0	850	17.0
	10-14	377	15.5	407.3	15.8	1	100	785	15.7
	15-19	311	12.8	245.9	9.6	0	0	557	11.1
	20-24	150	6.2	195	7.6	0	0	345	6.9
	25-29	135	5.5	213.6	8.3	0	0	348	7.0
	30-34	112	4.6	127	4.9	0	0	239	4.8
	35-39	114	4.7	117.9	4.6	0	0	232	4.6
	40-44	59	2.4	84.7	3.3	0	0	144	2.9
	45-49	56	2.3	60.8	2.4	0	0	117	2.3
	50-54	51	2.1	86.1	3.3	0	0	137	2.7
	55-59	56	2.3	60.9	2.4	0	0	117	2.3
	60-64	48	2.0	47.5	1.8	0	0	95	1.9
	65-69	25	1.0	38.1	1.5	0	0	63	1.3
	70-74	17	0.7	27.2	1.1	0	0	45	0.9
	75-79	14	0.6	14.6	0.6	0	0	28	0.6
	80-84	8	0.3	10.4	0.4	0	0	18	0.4
	85+	5	0.2	7.0	0.3	0	0	12	0.2
	Missing/DK	5	0.2	0	0	0	0	5	0.1
Dependency age groups	0-14	1271	52.2	1236.7	48.1	1	100	2508	50.1
	15-64	1092	44.8	1239.5	48.2	0	0	2331	46.5
	65+	69	2.8	97.3	3.8	0	0	166	3.3
	Missing/DK	5	0.2	0	0	0	0	5	0.1
Children and adult populations	Children age 0-17 years	1469	60.3	1397.8	54.3	1	100	2868	57.2
	Adults age 18+ years	962	39.5	1175.7	45.7	0	0	2138	42.7
	Missing/DK	5	0.2	0	0	0	0	5	0.1
Total		**2436**	**100**	**2573.5**	**100**	**1**	**100**	**5010**	**100**
Missing/DK – Missing or don't know									

Figure HH.1: Age and sex distribution of household population, Homa Bay County, 2011
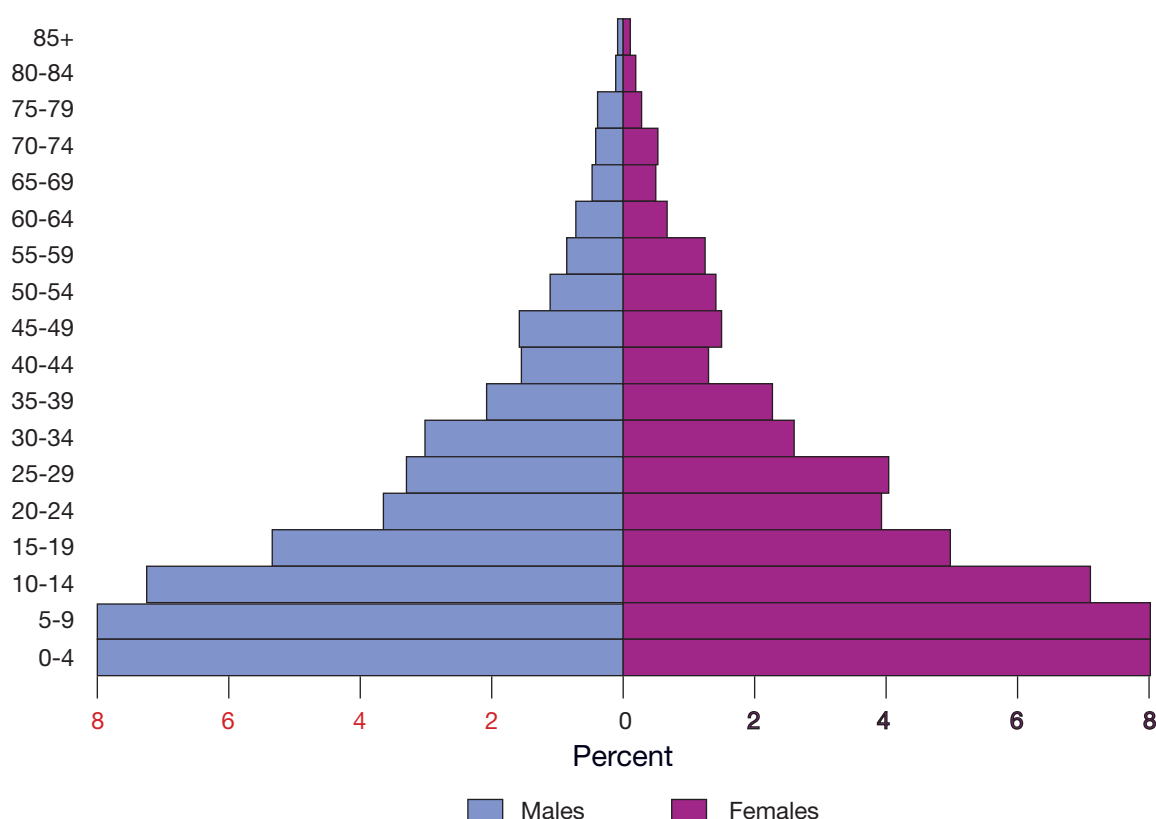
Table HH.3 - HH.5 provide basic information on the households, female respondents age 15-49, and children under-5 by presenting the unweighted, as well as the weighted numbers. Information on the basic characteristics of households, women and children under-5 interviewed in the survey is essential for the interpretation of findings presented later in the report and also can 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 household head 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 Homa Bay County, about 8 per cent of the residents live in the urban areas. The mean household size is 4.6 persons. About 40 per cent of the households are reportedly headed by females and approximately 52 per cent of the households have at least one child aged below 5 years. About 84 per cent of the households have at least one child below 18 years of age and 76 per cent have at least one female in the reproductive age group 15-49 years. Close to 20 per cent of the household heads have no education, 61 per cent have attained primary education and 18 per cent have attained secondary education or higher.

Table HH.3: Household composition

Per cent and frequency distribution of households by selected characteristics, Homa Bay County, 2011			
	Weighted per cent	Number of households	
		Weighted	Unweighted
Sex of household head			
Male	59.8	652	701
Female	40.2	438	463
Residence			
Urban	8.1	88	92
Rural	91.9	1002	1072
Number of household members			
1	9.7	105	112
2	9.5	104	114
3	15.8	172	179
4	16.2	177	188
5	14.5	158	167
6	13.5	147	158
7	10.1	110	117
8	5.6	61	66
9	3.2	35	39
10+	2.0	22	24
Education of household head			
None	20.1	219	234
Primary	61.2	666	707
Secondary+	17.9	195	214
Missing /DK	0.8	9	9
Total	**100.0**	**1089**	**1164**
Households with at least			
Households with at least: one child age 0-4 years	52.3	1089	1164
Households with at least: one child age 0-17 years	84.2	1089	1164
Households with at least: one woman age 15-49 years	76.4	1089	1164
Mean household size	**4.6**	**1089**	**1164**

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 equal, since sample weights have been normalized (standardized). 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, Homa Bay County, 2011		Weighted per cent	Number of women	
			Weighted	Unweighted
Area	Urban	9.2	87	94
	Rural	90.8	857	939
Age	15-19	22.2	210	229
	20-24	17.9	169	185
	25-29	20.8	197	210
	30-34	12.7	120	130
	35-39	11.8	112	125
	40-44	8.4	79	85
	45-49	6.1	58	69
Marital/Union status	Currently married/in union	65.5	618	682
	Widowed	10.6	100	105
	Divorced	0.3	2	3
	Separated	1.9	18	19
	Never married/in union	21.8	206	224
Motherhood status	Ever gave birth	81.8	772	845
	Never gave birth	18.2	172	188
Births in last two years	Had a birth in last two years	33.5	316	345
	Had no birth in last two years	66.5	628	688
Education	None	6.0	57	61
	Primary	72.4	684	752
	Secondary+	21.5	203	220
Wealth index quintiles	Poorest	21.1	199	217
	Second	18.9	179	200
	Middle	19.4	183	197
	Fourth	22.4	212	234
	Richest	18.2	172	185
Total		**100**	**944**	**1033**

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 last two years, education[3], and wealth index quintiles[4].

In Homa Bay County, the biggest proportion of women aged 15-49 years is in the age category of 15 to 19 years, accounting for 22 per cent of the sample. About 66 per cent of the women aged 15-49 years are currently married whilst 22 per cent have reported never having been married or in a union. Eighty two per cent of the women reported they had given birth, while eighteen per cent had never given birth. The findings suggest that most women in this county give birth within marriage or in a union. Thirty four per cent of women have had a birth in the last two years. The majority of women have attained primary education (72 per cent) but only 22 per cent have attained secondary education.

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 male to female children aged 0-4 years differs slightly with boys accounting for 52 per cent. About 10 per cent of children aged below five years belong to the 0-5 month age group, while a similar proportion is in the 6-11 month category. Seventy seven per cent of children have mothers who have attained primary level education, while seventeen per cent have mothers who have attained at least secondary education or higher.

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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, mobile 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

Percentage and frequency distribution of children under five years of age by selected characteristics, Homa Bay County, 2011		Weighted per cent	Number of children	
			Weighted	Unweighted
Sex	Male	52.2	453	475
	Female	47.8	415	436
Area	Urban	7.2	63	67
	Rural	92.8	806	844
Age	0-5 months	10.1	88	94
	6-11 months	10.1	88	87
	12-23 months	19.0	165	173
	24-35 months	19.8	172	183
	36-47 months	20.5	178	187
	48-59 months	20.5	178	187
Mother's education	None	6.1	53	52
	Primary	77.0	669	712
	Secondary+	16.9	147	147
Wealth index quintiles	Poorest	24.1	209	221
	Second	19.9	173	183
	Middle	20.8	180	182
	Fourth	19.9	173	189
	Richest	15.3	133	136
Total		**100**	**868**	**911**

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

IV. Child Mortality

One of the overarching goals of the Millennium Development Goals (MDGs) is the reduction of infant and under-five mortality. Specifically, the MDGs call 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 Homa Bay County Multiple Indicator Cluster Survey utilised direct measures of child mortality from birth stories 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 ten years immediately preceding the survey, the infant mortality rate is estimated at 51 deaths per 1000 live births, while the probability of dying under age 5 (U5MR) is approximately 130 deaths per 1000 live births. This implies that 1 in every 20 children born in Homa Bay County dies before their first birthday, while 1 in every 8 does not survive to age five. The estimated neonatal mortality rate is 19 deaths per thousand live births while the post-neonatal mortality rate is 26 deaths per thousand live births for the ten years immediately preceding the MICS survey. This shows that more than a third of infant deaths in Homa Bay County occur during the first month of life. The estimated child mortality rate is 77 deaths per 1000 children surviving to the first birthday.

Table CM.1: Early childhood mortality rates

Neonatal, post-neonatal, Infant, child and under-five mortality rates for ten year periods preceding the survey, Homa Bay County, 2011					
Years preceding the survey	Neonatal mortality rate [1]	Post-neonatal mortality rate [2]	Infant mortality rate [3]	Child mortality rate [4]	Under-five mortality rate [5]
0-9	26	51	77	57	130
10-19	30	97	126	79	195
[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

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[5]. 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 the MICS, weights and heights of all children under 5 years of age were measured using anthropometric equipment recommended by UNICEF (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.

Children whose full birth date (month and year) were not obtained (this should normally not exist in MICS surveys), and children whose measurements are outside a plausible range are excluded from Table

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5   http://www.who.int/childgrowth/standards/second_set/technical_report_2.pdf

NU.1. Children are excluded from one or more of the anthropometric indicators when their weights and heights have not been measured, whichever applicable. For example if a child has been weighed but his/her height has not been measured, the child is 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 Homa Bay County have either their month or year of birth taken. Ninety seven per cent have their height measured, 99 per cent have their weight measured and whilst 98 per cent have either their weights or heights 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 around 2 per cent have been excluded from calculations of the height-for-age and the weight-for-height indicators.

Approximately one in seven (15 per cent) children under age five in Homa Bay County is moderately or severely underweight (below -2SD from the WHO reference mean) whilst over 2 per cent are classified as severely underweight (below -3SDfrom the WHO reference mean) (Table NU.1). About one in four (26 per cent) children is moderately or severely stunted or too short for their age whilst about 1 in 10 (11 per cent) is severely stunted. About 1 in 25 (4 per cent) children is moderately wasted or too thin for their height, whilst 1 in 50 (2 per cent) is classified as overweight.

The proportion of children who are moderately or severely stunted is higher amongst boys (30 per cent) than girls (22 per cent). The proportion of children who are moderately or severely underweight is higher in rural (15 per cent) than urban households (10 per cent).Similarly, the proportion of children who are moderately or severely stunted is higher in rural (27 per cent) than urban households (17 per cent). The proportion of children who are moderately or severely wasted decreases as mother's education increases-it is 9 per cent amongst children whose mothers are uneducated and 3 per cent amongst children whose mothers have secondary level education.

In general, the proportion of children who are moderately or severely underweight or stunted decreases as wealth index increases.

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, Homa Bay County, 2011

	Weight for age				Height for age				Weight for height				
	Underweight		Mean Z-Score (SD)	Number of children under age 5	Stunted		Mean Z-Score (SD)	Number of children under age 5	Wasted		Overweight	Mean Z-Score (SD)	Number of children under age 5
	per cent below				per cent below				per cent below		per cent above		
	-2 SD [1]	-3 SD [2]			-2 SD [3]	-3 SD [4]			-2 SD [5]	-3 SD [6]	+2 SD		
Sex													
Male	16.9	2.8	-0.9	436	30.0	12.6	-1.3	436	5.6	1.5	2.1	-0.1	436
Female	13.0	1.4	-0.6	399	22.3	8.7	-0.9	399	2.8	0.0	2.6	0.0	399
Residence													
Urban	9.6	1.9	-0.5	57	17.3	4.3	-0.7	57	6.3	0.0	5.5	0.0	57
Rural	15.4	2.2	-0.8	779	27.0	11.2	-1.1	779	4.1	0.9	2.1	-0.1	779
Age													
0–5 months	2.7	1.5	0.3	74	2.1	0.9	0.0	74	3.3	0.9	3.5	0.3	74
6–11 months	16.4	2.2	-0.6	88	10.0	5.8	-0.4	88	9.3	1.8	2.1	-0.2	88
12–23 months	27.3	6.1	-1.1	162	31.7	12.4	-1.3	162	10.1	2.2	2.9	-0.4	162
24–35 months	15.7	1.9	-0.7	171	28.8	10.5	-1.1	171	2.0	0.0	3.6	0.0	171
36–47 months	8.8	0.0	-0.9	175	33.9	11.8	-1.3	175	1.9	0.0	0.9	0.0	175
48–59 months	13.6	1.0	-0.8	167	29.9	15.3	-1.4	167	1.0	0.5	1.7	0.0	167
Mother's education													
None	11.2	5.7	-0.5	51	8.8	5.7	-0.4	51	9.2	1.8	0.0	-0.2	51
Primary	16.1	2.1	-0.8	645	28.8	11.9	-1.2	645	4.1	0.8	2.0	-0.1	645
Secondary	11.3	1.1	-0.4	140	21.3	7.4	-0.8	140	3.0	0.5	4.7	0.1	140
Wealth index quintile													
Poorest	21.6	2.9	-1.0	201	37.7	16.9	-1.5	201	4.5	0.5	3.1	-0.1	201
Second	14.4	1.7	-0.8	166	26.2	10.2	-1.2	166	3.6	0.6	0.9	0.0	166
Middle	14.1	2.5	-0.7	178	22.9	8.7	-0.9	178	4.1	1.2	0.9	-0.2	178
Fourth	14.9	1.8	-0.8	165	27.5	12.6	-1.1	165	3.8	0.9	3.1	-0.1	165
Richest	6.7	1.6	-0.2	126	11.7	2.1	-0.5	126	5.2	0.7	4.1	0.1	126
Total	**15.0**	**2.2**	**-0.7**	**836**	**26.3**	**10.7**	**-1.1**	**836**	**4.2**	**0.8**	**2.4**	**-0.1**	**836**

[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

The age pattern shows that the highest percentage of children of children who are undernourished according to all the three indices occurs in the 12-23 months age group (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 the environment.

Figure NU.1 Percentage of children under age 5 who are underweight, stunted and wasted. Homa Bay County, 2011
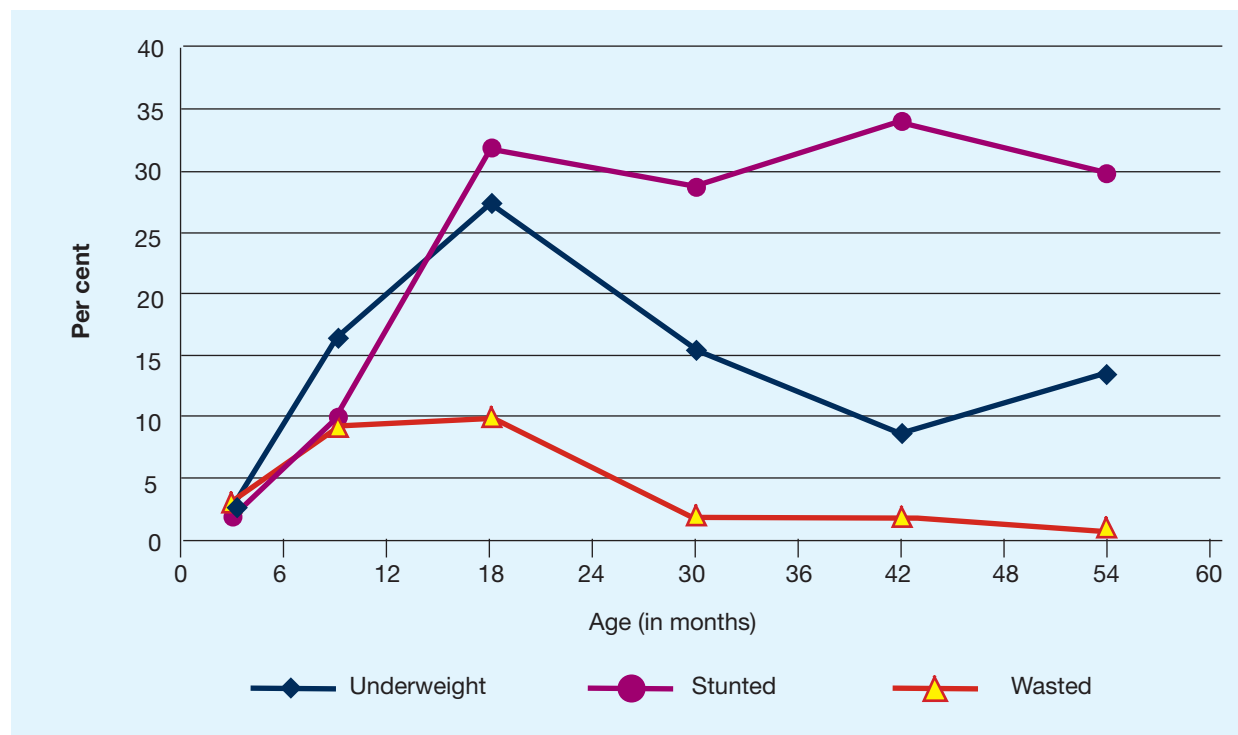
Breastfeeding and Infant and Young Child Feeding

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, Homa Bay 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	
Residence				
Urban	(*)	(*)	(*)	24
Rural	97.8	40.2	88.7	293
Months since birth				
0-11 months	98.9	40.4	91.8	165
12-23 months	96.6	42.4	86.6	143
Assistance at delivery				
Skilled attendant	97.7	43.6	88.9	157
Traditional birth attendant	99.0	40.2	90.1	103
Place of delivery				
Public sector health facility	97.0	47.4	88.6	120
Private sector health facility	(100.0)	(36.5)	(90.5)	30
Home	99.4	38.6	90.8	157
Mother's education				
None	(*)	(*)	(*)	15
Primary	98.0	37.3	87.8	244
Secondary+	95.8	50.1	91.3	57
Wealth index quintile				
Poorest	98.0	40.8	83.0	78
Second	100.0	29.1	96.6	63
Middle	97.2	33.4	87.0	56
Fourth	96.2	48.4	89.9	65
Richest	96.8	55.8	89.9	54
Total	**97.7**	**41.3**	**89.0**	**316**

[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, those who were first breastfed within one hour and within one day of birth. Overall, the majority (98 per cent) of children born in the 2 years preceding the survey in Homa Bay County had been breastfed. Breastfeeding is a very important step in management of lactation and establishment of a physical and emotional relationship between the baby and the mother. However, less than half (41 per cent) of babies are breastfed for the first time within one hour of birth, a proportion remarkably lower than the national (58 per cent) and provincial levels (61 per cent) reported in the 2008/9 KDHS. About 89 per cent of newborns start breastfeeding within one day of birth.

The proportion of children who are breastfed within one hour of birth ranges from 29 per cent in children born in households in the second wealth quintile to 56 per cent in children born in households in the highest wealth quintile.

In Table NU.3, breastfeeding status is 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, Homa Bay 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
Sex							
Male	(44.1)	(67.1)	43	(75.3)	31	(24.9)	26
Female	(26.1)	40.9	45	(86.0)	32	(51.4)	22
Residence							
Urban	(*)	(*)	5	(*)	3	(*)	5
Rural	34.6	54.5	83	83.1	60	(40.7)	43
Mother's education							
None	(*)	(*)	4	(*)	3	(*)	4
Primary	(37.5)	(55.0)	68	(80.7)	48	(36.0)	35
Secondary	(*)	(*)	16	(*)	12	(*)	9
Wealth index quintile							
Poorest	(*)	(*)	19	(*)	15	(*)	13
Second	(*)	(*)	11	(*)	16	(*)	9
Middle	(*)	(*)	16	(*)	15	(*)	9
Fourth	(*)	(*)	19	(*)	11	(*)	5
Richest	(*)	(*)	22	(*)	7	(*)	12
Total	**35.0**	**53.8**	**88**	**80.7**	**63**	**(36.8)**	**48**

[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

Only 35 per cent of children aged less than six months are being exclusively breastfed in Homa Bay County. This level is considerably lower than the recommended 100 per cent. By age 12-15 months, 81 per cent of children are still being breastfed.

Figure NU.3 Infant feeding patterns by age: Percent distribution of children aged under 2 years by feeding pattern by age group, Homa Bay County, Nyanza province, Kenya, 2011
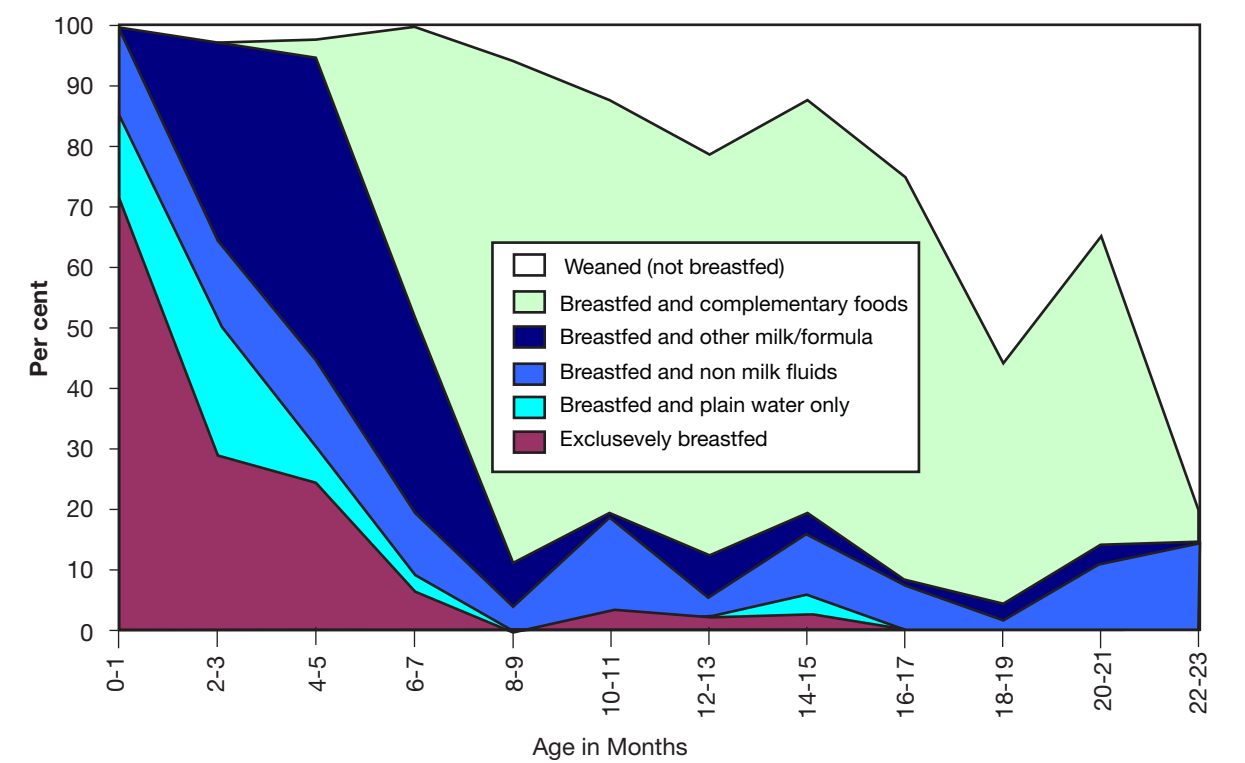
Table NU.4 shows the median duration of breastfeeding by selected background characteristics. Among children under age 3, the median duration is approximately 20 months for any breastfeeding, 2 months for exclusive breastfeeding, and 3 months for predominant breastfeeding.

Table NU.4: Duration of breastfeeding

Median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among children age 0-35 months, Homa Bay County, 2011				
	Median duration (in months) of			Number of children age 0-35 months
	Any breastfeeding [1]	Exclusive breastfeeding	Predominant breastfeeding	
Sex				
Male	19.1	2.2	3.9	255
Female	20.6	1.6	2.2	257
Residence				
Urban	(16.1)	(2.2)	(2.2)	41
Rural	19.7	1.8	2.9	471
Mother's education				
None	(22.6)	NA	NA	29
Primary	19.3	2.1	3.0	388
Secondary+	19.6	0.6	2.5	95
Wealth index quintile				
Poorest	18.0	2.4	3.1	118
Second	19.7	1.4	2.5	95
Middle	18.5	2.0	3.5	107
Fourth	21.2	1.4	2.4	99
Richest	19.3	.	3.5	93
Median	**19.5**	**1.8**	**2.9**	**512**

[1] MICS indicator 2.10
( ) Based on 25-49 unweighted cases

The adequacy of infant feeding in children 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 Homa Bay County, only 35 per cent of infants aged less than 6 months are exclusively breastfed, whilst about 55 per cent of those in the 6-23 months age group are adequately fed. Overall, half (50 per cent) of the children aged 0-23 months are appropriately breastfed.

The proportion that is adequately fed amongst children aged 0 -23 months is 43 per cent among children born of mothers with secondary or higher education and 51 per cent among children born of mothers with primary education.

Table NU.5: Age-appropriate breastfeeding

Percentage of children age 0-23 months who were appropriately breastfed during the previous day, Homa Bay 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
Sex						
Male	(44.1)	43	52.3	122	50.2	166
Female	(26.1)	45	57.9	130	49.8	175
Residence						
Urban	(*)	5	(*)	17	(*)	22
Rural	34.6	83	55.9	235	50.4	318
Mother's education						
None	(*)	4	(*)	15	(*)	20
Primary	37.5	68	56.3	188	51.3	256
Secondary+	(*)	16	(49.5)	49	42.5	64
Wealth index quintile						
Poorest	(*)	19	42.4	66	43.8	84
Second	(*)	11	61.7	54	57.0	65
Middle	(*)	16	54.3	50	47.9	66
Fourth	(*)	19	(75.7)	47	60.2	66
Richest	(*)	22	(43.4)	36	41.9	59
Total	**35.0**	**88**	**55.2**	**252**	**50.0**	**340**

[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 6-23 months of age is particularly important forgrowth 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.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, slightly more than a quarter (27 per cent) of children aged 6-23 months in Homa Bay County are receiving solid, semi-solid and soft foods the minimum number of timesand is 22 per cent among girls and 32 per cent among boys.

Among currently breastfeeding children aged 6-23 months, only about one in four (26 per cent) are receiving solid, semi-solid and soft foods the minimum number of times, whilst among non-breastfeeding children, about 3 out of 10 (29 per cent) are receiving solid, semi-solid and soft foods or milk feeds 4 times or more.

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, Homa Bay 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
Sex	Male	33.6	83	(22.2)	(28.2)	39	31.9	122
	Female	20.2	102	(14.4)	(30.2)	28	22.4	130
Age	6-8 months	(27.6)	44	(*)	(*)	1	(27.2)	45
	9-11 months	(37.4)	39	(*)	(*)	4	(33.9)	43
	12-17 months	21.4	71	(*)	(*)	18	27.5	89
	18-23 months	(21.3)	30	16.8	23.0	45	22.4	75
Residence	Urban	(*)	11	62.0	(*)	7	(*)	17
	Rural	25.5	174	14.4	25.5	61	25.5	235
Mother's education	None	(*)	12	73.2	(*)	3	(*)	15
	Primary	20.7	137	16.5	33.1	51	24.0	188
	Secondary	(33.8)	35	(*)	(*)	14	(28.2)	49
Wealth index quintiles	Poorest	(13.5)	42	(*)	(*)	23	21.9	66
	Second	(12.1)	42	(*)	(*)	12	12.6	54
	Middle	(36.9)	33	(*)	(*)	17	35.2	50
	Fourth	(40.7)	43	(*)	(*)	4	(37.0)	47
	Richest	(*)	24	(*)	(*)	12	(33.0)	36
Total		**26.2**	**184**	**18.9**	**29.0**	**68**	**27.0**	**252**

[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.

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

The continued practice of bottle-feeding is a concern because of the possible contamination due to unsafe water and lack of hygiene in preparation. Table NU.8 shows that bottle-feeding is still occurring in Homa Bay County with 13 per cent of children aged 0-23 months reported to have been fed using a bottle with a nipple. The prevalence of bottle feeding is 9 per cent in males and 16 per cent in female children aged 0-23 months

The proportion of children who are bottle fed in Homa Bay County is higher in households from the richest wealth quintile (24 per cent) than in those from the poorer wealth quintile (8 per cent in the poorest wealth quintile).

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, Homa Bay County, 2011		Percentage of children age 0-23 months fed with a bottle with a nipple [1]	Number of children age 0-23 months
Sex	Male	9.2	166
	Female	15.6	175
Age	0-5 months	19.7	88
	6-11 months	14.0	88
	12-23 months	7.8	165
Residence	Urban	(*)	22
	Rural	11.7	318
Mother's education	None	(*)	20
	Primary	12.2	256
	Secondary	8.1	64
Wealth index quintiles	Poorest	8.4	84
	Second	6.5	65
	Middle	12.0	66
	Fourth	13.8	66
	Richest	24.0	59
Total		**12.5**	**340**

[1] MICS indicator 2.11

(*) Not shown, based on less than 25 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) recommend that all salts meant for human consumption in Kenya 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, Homa Bay County, 2011								
	Percentage of households in which salt was tested	Number of households	Per cent of households with					Number of households in which salt was tested or with no salt
			No salt	Salt test result			Total	
				Not iodized 0 PPM	>0 and <15 PPM	15+ PPM [1]		
Residence								
Urban	78.5	88	18.7	1.2	80.1	100.0	85	269
Rural	82.3	1002	15.5	0.7	83.8	100.0	976	852
Wealth index quintile								
Poorest	75.3	247	22.2	0.7	77.1	100	239	272
Second	78.7	221	18	0.4	81.6	100	212	169
Middle	84.5	206	13.6	0.3	86.1	100	201	210
Fourth	87.5	226	11	1	88	100	222	212
Richest	85.5	189	13.1	1.3	85.5	100	186	258
Total	**82**	**1089**	**15.8**	**0.7**	**83.5**	**100**	**1061**	**1121**

[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 82 per cent of households, salt used for cooking was analysed for iodine content by using salt test kits and testing for the presence of potassium iodate. Table NU.9 shows that although 16 per cent of all households interviewed did not have salt, iodine content in all the house that have salt had the required 15ppm of iodine in salt.

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.

The Kenya Ministry of Health 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 capsules are linked to immunization services and are given when the child has contact with these services after six months of age. It is also recommended that mothers take a Vitamin A supplement within eight weeks of giving birth due to increased Vitamin A requirements during pregnancy and lactation.

Within the six months prior to the MICS, 42 per cent of children aged 6-59 months received a high dose Vitamin A supplement (Table NU.10). The proportion of children who received vitamin A supplementation is 41 per cent in rural areas and 44 per cent in urban areas. The proportion receiving Vitamin A supplementation ranges from 33 per cent in children in the 48-59 months age group to 65 per cent in the children in the 6-11 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, Homa Bay 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			
Sex	Male	5.6	2.9	49.3	38.9	40.2	410	
	Female	8.1	4.9	48.8	41.9	43.4	371	
Residence	Urban	11.7	6.8	52.7	42.6	46.3	58	
	Rural	6.4	3.6	48.8	40.2	41.3	723	
Age in months	6-11	12.6	10.8	67.8	65.3	65.3	88	
	12-23	16.1	8.5	61.1	43.0	46.6	165	
	24-35	8.1	2.6	39.5	30.9	32.7	172	
	36-47	0.9	0.9	49.4	42.4	43.3	178	
	48-59	0.0	0.0	37.5	32.7	32.7	178	
Mother's education	None	(4.4)	(2.3)	(49.1)	(37.7)	(40.0)	49	
	Primary	5.8	3.3	47.6	40.2	41.1	601	
	Secondary	12.5	6.7	55.8	41.9	45.0	131	
Wealth index quintiles	Poorest	7.8	4.0	49.7	40.0	40.5	191	
	Second	5.8	3.7	46.4	40.2	41.2	161	
	Middle	3.9	1.6	44.9	35.4	35.4	164	
	Fourth	6.7	4.4	55.5	47.0	49.4	154	
	Richest	11.0	6.0	49.1	39.2	43.1	110	
Total		**6.8**	**3.8**	**49.1**	**40.4**	**41.7**	**780**	

[1] MICS indicator 2.17
( ) Based on 25-49 unweighted cases

Low Birth Weight

Weight at birth is a good indicator not only of a mother's health and nutritional status but also the newborn's chances for survival, growth, long-term health and psychosocial development. Low birth weight (less than 2,500 grams) carries a range of grave health risks for children. Babies who were undernourished in the womb face a greatly increased risk of dying during their early months and years. Those who survive have impaired immune function and are at increased risk of disease; they are likely to remain undernourished, have 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 run the 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 newborns 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[6].

Overall, 46 per cent of births are weighed at birth and approximately 5 per cent of infants are estimated to have weighed less than 2500 grams at birth (Table NU.11 and Figure NU.5). It is noteworthy that the proportion of children weighed at birth is higher amongst children whose mothers have secondary level education (69 per cent) than amongst those whose mothers have primary level education (38 per cent). The proportion weighed at birth increases as wealth index increases and ranges from 33 per cent in the poorest wealth quintile to 73 per cent in the richest quintile.

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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.*

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, Homa Bay County, 2011			
	Per cent of live births:		Number of live births in the last 2 years
	Below 2500 grams [1]	Weighed at birth [2]	
Residence			
Urban	(*)	(*)	24
Rural	4.9	44.0	293
Mother's education			
None	(*)	(*)	15
Primary	5.0	37.8	244
Secondary +	5.2	69.3	57
Wealth index quintile			
Poorest	6.1	33.4	78
Second	3.5	36.2	63
Middle	4.1	43.5	56
Fourth	5.5	49.3	65
Richest	5.9	73.4	54
Total	**5.1**	**45.8**	**316**

[1] MICS indicator 2.18

[2] MICS indicator 2.19

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

Figure NU.5 Percentage of infants weighing less than 2500g and those weighed at birth, Homa Bay County, 2011
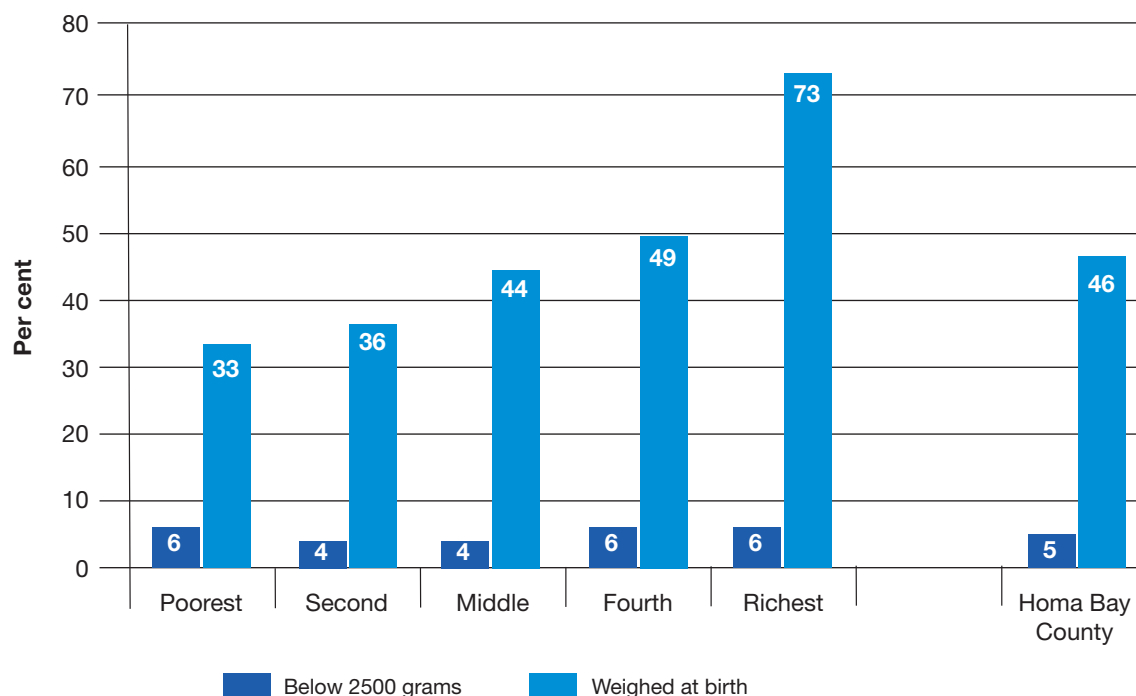
VI. Child Health

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 one year of age at 90 percent 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-HiB - Hepatitis B vaccine to protect against diphtheria, pertussis, tetanus, Hepatitis B and invasive *Hemophilus influenzae* type B disease, four doses of polio vaccine and a measles vaccination 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.

Table CH.1: Vaccinations in first year of life

Percentage of children age 12-23 months immunized against childhood diseases at any time before the survey and before the first birthday, Migori County, 2011				
	Vaccinated at any time before the survey according to:			Vaccinated by 12 months of age
	Vaccination card	Mother's report	Either	
BCG [1]	66.6	28.2	94.8	94.8
Polio (at birth)	65.3	20.1	85.4	85.4
Polio 1	66.6	30.7	97.2	96.3
Polio 2	66.0	23.5	89.4	88.0
Polio 3 [2]	64.3	11.4	75.6	73.8
DTP 1	66.6	29.0	95.6	95.0
DTP 2	66.6	25.6	92.2	90.5
DTP 3 [3]	66.6	20.2	86.7	85.1
Measles [4]	66.3	25.2	91.5	80.6
Yellow fever [5]	65.0	13.6	78.5	78.5
All vaccinations	67.0	1.5	68.5	57.1
No vaccinations	0.0	2.8	2.8	2.8
Number of children age 12-23 months	165	165	165	165

[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 3.5

[5] MICS indicator 3.6

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.

The majority (95 per cent) of children aged 12-23 months receive a BCG vaccination by the age of 12 months whilst a similar proportion receives the first dose of DPT. The percentage declines dramatically to 63 per cent for the second and third dose of DPT (Figure CH.1). Similarly, whilst 94per cent of children receive the Polio 1 vaccine by age 12 months, this proportion declines to 71per cent by the third dose. Although 90 per cent of children have received the measles vaccine at any time before the survey, the proportion receiving it by their first birthday is lower (80 per cent). As a result, the percentage of children receiving all the recommended vaccinations by their first birthday is much lower at 54 per cent.

Figure CH.1 Percentage of children aged 12-23 months who received the recommended vaccinations by 12 months, Homa Bay County, 2011
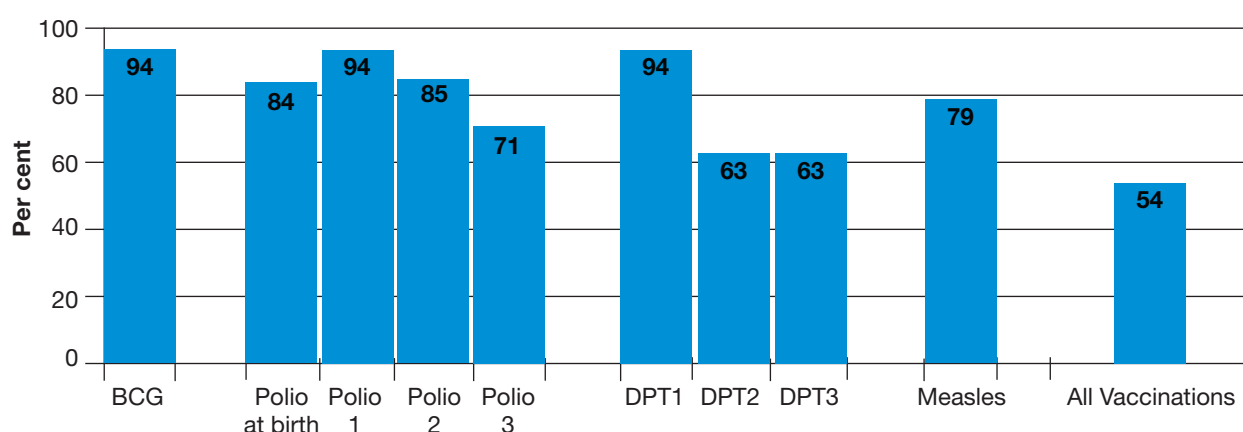
The Hepatitis B vaccine is also included in the immunization schedule in Kenya (to be given at birth), whilst the yellow fever vaccine is recommended (at 9 months) in selected districts. Although not on the national immunization schedule, the meningococcal vaccine is also recommended for children between 6 weeks and 1 year. The HiB and Pneumomococcal conjugate (PCV) vaccines were in introduced into the national immunization Programme in 2011. However data for immunization before 12 months of agefor 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, 67 per cent of children had 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. Overall, only slightly over two thirds (69per cent) of children aged 12-23 months have received all the vaccinations (BCG, 3 doses of DPT, 4 doses of Polio, yellow fever and measles), whilst about 3 per cent have not received any of the vaccines. The findings are consistent with those of the 2008/9 KDHS which showed that 65per cent of children in this age group have been vaccinated, and only 3 per cent have not received any vaccines in Nyanza province. It is noteworthy that the proportion of children who receive the yellow fever vaccine is lower than for all other vaccines.

The proportion of children who are vaccinated in Homa Bay County by gender is 71 per cent of female children and to 66 per cent of male children.

Table CH.2: Vaccinations by background characteristics

Percentage of children age 12-23 months currently vaccinated against childhood diseases, Homa Bay County, 2011

		Polio				DPT							Percentage with vaccination card seen	Number of children age 12-23 months
	BCG	At birth	1	2	3	1	2	3	Measles	Yellow fever	None	All		
Sex														
Male	97.0	84.7	97.0	89.3	71.4	97.0	94.3	88.7	91.8	78.2	3.0	66.0	66.0	84
Female	92.5	86.1	97.5	89.5	80.0	94.0	90.0	84.7	91.3	79.0	2.5	71.0	67.1	81
Area														
Urban	*	*	*	*	*	*	*	*	*	*	*	*	*	10
Rural	94.5	85.0	97.1	89.2	76.5	95.3	91.7	85.8	91.6	78.4	2.9	70.2	68.1	154
Mother's education														
None	*	*	*	*	*	*	*	*	*	*	*	*	*	7
Primary	94.1	83.4	96.5	90.5	77.0	95.1	91.5	85.3	90.0	76.7	3.5	70.0	69.0	128
Secondary	(96.5)	(93.4)	(100.0)	(85.8)	(75.9)	(96.5)	(93.1)	(89.7)	(96.2)	(86.7)	(0)	(68.7)	(65.6)	29
Wealth index quintile														
Poorest	(90.2)	(78.8)	(94.7)	(88.8)	(75.6)	(92.8)	(88.3)	(79.0)	(84.4)	(75.6)	(5.3)	(69.7)	(68.3)	48
Second	(90.9)	(85.8)	(93.7)	(90.9)	(84.2)	(90.9)	(90.9)	(85.7)	(90.9)	(75.7)	(6.3)	(73.7)	(71.4)	32
Middle	(97.2)	(82.8)	(100.0)	(98.0)	(80.2)	(97.2)	(95.2)	(92.4)	(95.6)	(89.1)	(0.0)	(75.4)	(70.4)	36
Fourth	(100.0)	(90.9)	(100.0)	(79.2)	(68.8)	(100.0)	(93.5)	(90.2)	(100.0)	(83.6)	(0.0)	(66.1)	(66.1)	26
Richest	*	*	*	*	*	*	*	*	*	*	*	*	*	24
Total	**94.8**	**85.4**	**97.2**	**89.4**	**75.6**	**95.6**	**92.2**	**86.7**	**91.5**	**78.5**	**2.8**	**68.5**	**66.6**	**165**

(*) 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. A World Fit for Children 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 newborn) 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. About 55 per cent of women receive at least two doses of tetanus toxoid vaccine during pregnancy as recommended. A higher proportion of women with secondary level education receive the recommended two doses (64 per cent) compared to those who had primary level education (52 per cent). The proportion receiving the recommended two doses of tetanus toxoid vaccine during pregnancy is directly correlated with wealth status -it is lowest amongst women from the poorest households (50 per cent) and highest amongst those from the richest households (63 per cent).

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, Homa Bay 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		
Area							
Urban	*	*	*	*	*	*	24
Rural	54.1	19.8	0.0	0.0	0.0	73.8	293
Education							
None	*	*	*	*	*	*	15
Primary	51.6	21.9	0.0	0.0	0.0	73.5	244
Secondary+	63.7	12.0	0.0	0.0	0.0	75.7	57
Wealth index quintile							
Poorest	49.7	21.0	0.0	0.0	0.0	70.6	78
Second	53.0	23.0	0.0	0.0	0.0	76.0	63
Middle	52.3	18.3	0.0	0.0	0.0	70.6	56
Fourth	57.3	18.3	0.0	0.0	0.0	75.7	65
Richest	62.5	17.0	0.0	0.0	0.0	79.5	54
Total	**54.6**	**19.7**	**0.0**	**0.0**	**0.0**	**74.2**	**316**
[1] MICS indicator 3.7							
(*) Not shown, based on less than 25 unweighted cases.							

Figure CH.2 shows the protection of women against neonatal tetanus by major background characteristics. Overall, about 3 out of 4 (74per cent) of women who have had a live birth in the last 2 years are protected against tetanus. The proportion of women protected against neonatal tetanus is highest amongst women from the highest wealth quintile.

Figure CH.2 Percentage of women with a live birth in the last 12 months who are protected against neonatal tetanus, Homa Bay County, 2011
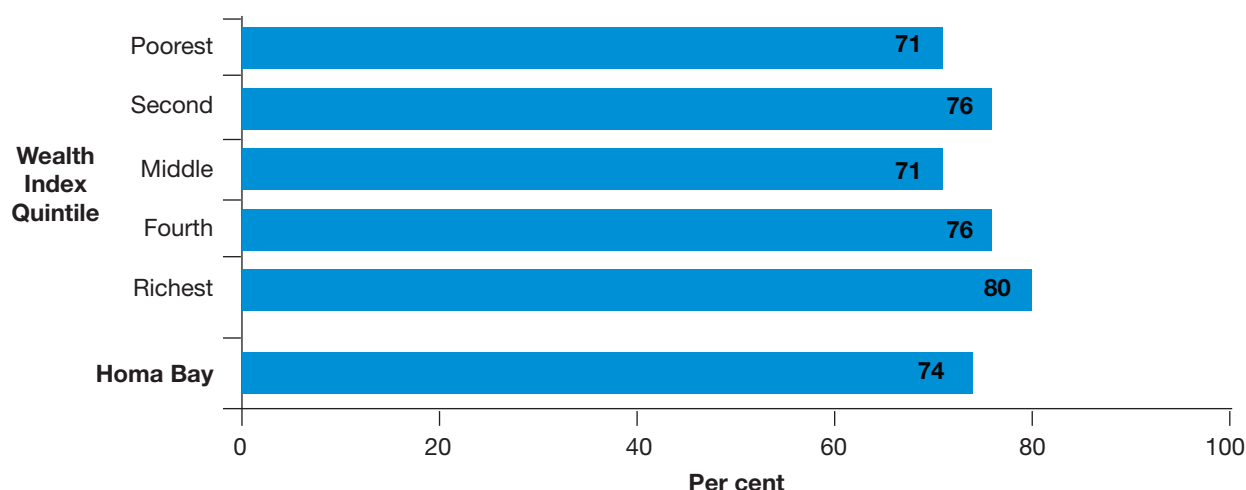
Oral Rehydration Treatment

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

The goals are to: 1) reduce by one half death due to diarrhoea among children under five by 2010 compared to 2000 (A World Fit for Children); and 2) reduce by two thirds the mortality rate among children under five by 2015 compared to 1990 (Millennium Development Goals). In addition, the World Fit for Children calls for a reduction in the incidence of diarrhoea by 25 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, 16 per cent of under five children had diarrhoea in the two weeks preceding the survey (Table CH.4). The proportion of children with diarrhoea was much higher in urban (26 per cent) than rural areas (15 per cent). Prevalence of diarrhoea is inversely proportional to child age-the highest proportion (21 per cent) was in the youngest (0-11 months) age group and lowest in the oldest (48-59 months) age group. Diarrhoea prevalence does not vary markedly by mother's education or wealth status.

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, Homa Bay 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		
Sex							
Male	16.9	453	30.9	9.2	9.2	36.8	77
Female	14.2	415	32.3	14.3	14.3	36.7	59
Area							
Urban	26.4	63	*	*	*	*	17
Rural	14.8	806	29.9	12.1	12.1	35.9	119
Age in months							
0-11	20.5	176	29.6	(19.6)	(19.6)	(36.1)	36
12-23	20.3	165	33.5	(14.4)	(14.4)	(44.9)	33
24-35	18.0	172	32.2	(11.6)	(11.6)	(35.2)	31
36-47	11.1	178	25.2	(0.0)	(0.0)	(25.2)	20
48-59	8.7	178	38.5	*	*	*	15
Mother's education							
None	13.6	53	42.9	*	*	*	7
Primary	15.6	669	32.6	11.9	11.9	37.2	104
Secondary	16.5	147	23.6	(12.7)	(12.7)	(33.0)	24
Wealth index quintile							
Poorest	16.5	209	27.0	(4.3)	(4.3)	(29.6)	34
Second	15.2	173	18.9	(2.2)	(2.2)	(21.1)	26
Middle	14.0	180	50.9	(24.9)	(24.9)	(54.0)	25
Fourth	15.1	173	(24.6)	(12.5)	(12.5)	(37.0)	26
Richest	17.7	133	39.1	*	*	*	24
Total	**15.6**	**868**	**31.5**	**11.4**	**11.4**	**36.7**	**136**

(*) 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 are able to name more than one type of liquid, the percentages do not necessarily add to 100. Only 37 per cent of children with diarrhoea receive ORS or recommended homemade fluids. The proportion of children receiving ORS or other recommended homemade fluids does not vary markedly by gender.

Six out of ten (60 per cent) of children with diarrhoea are given much less to eat or eat nothing whilst about in one in 4 (24per cent) eat the same. About two in five (40 per cent) are given much less to drink. About a quarter (27 per cent) is given more to drink (Table CH.5).

TableCH.6 provides the proportion of children aged 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, 38 per cent of children with diarrhoea receive ORS or increased fluids whilst 79 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 47 per cent of children receive ORT with continued feeding as is the recommendation. The proportion receiving ORT with continued feeding is comparable between boys and girls. Twenty oneper cent of children with diarrhoeaare not given any treatment or drug.

Table CH.5: Feeding practices during diarrhoea

Percentage 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, Homa Bay County, 2011

		Had diarrhoea in last two weeks	Number of children age 0-59 months	Drinking practices during diarrhoea:					Eating practices during diarrhoea:							Number of children age 0-59 months with diarrhoea in last two weeks
				Given much less to drink	Given about the same (or somewhat less)	Given more to drink	Missing/DK	Total	Given nothing to eat	Given much less to eat	Given somewhat less to eat	Given about the same to eat	Given more to eat	Missing/DK	Total	
Sex	Male	16.9	453	39.0	35.3	24.4	1.4	100.0	13.3	46.3	11.4	26.7	0.9	1.4	100.0	77
	Female	14.2	415	41.6	27.3	31.1	0.0	100.0	13.8	47.1	14.5	21.3	1.8	1.6	100.0	59
Area	Urban	26.4	63	*	*	*	*	*	*	*	*	*	*	*	*	17
	Rural	14.8	806	39.7	32.7	26.7	0.9	100.0	13.0	45.5	12.8	25.6	1.4	1.7	100.0	119
Age in months	0-11	20.5	176	(41.6)	(46.2)	(9.3)	(2.9)	(100.0)	(40.6)	(16.4)	(10.0)	(27.5)	(0.0)	(5.5)	(100.0)	36
	12-23	20.3	165	(39.8)	(27.8)	(32.4)	(0.0)	(100.0)	(5.9)	(57.3)	(15.1)	(21.7)	(0.0)	(0.0)	(100.0)	33
	24-35	18.0	172	(29.1)	(25.9)	(45.0)	(0.0)	(100.0)	(3.6)	(55.4)	(15.3)	(25.8)	(0.0)	(0.0)	(100.0)	31
	36-47	11.1	178	*	*	*	*	*	*	*	*	*	*	*	*	20
	48-59	8.7	178	*	*	*	*	*	*	*	*	*	*	*	*	15
Mother's education	None	13.6	53	*	*	*	*	*	*	*	*	*	*	*	*	7
	Primary	15.6	669	37.3	31.8	29.8	1.0	100.0	12.1	46.1	13.2	25.1	1.6	1.9	100.0	104
	Secondary	16.5	147	*	*	*	*	*	*	*	*	*	*	*	*	24
Wealth index quintiles	Poorest	16.5	209	(44.5)	(37.7)	(17.8)	(0.0)	(100.0)	(12.7)	(40.8)	(17.8)	(23.1)	(3.0)	(2.7)	(100.0)	34
	Second	15.2	173	(45.0)	(24.5)	(30.5)	(0.0)	(100.0)	(12.4)	(60.3)	(8.7)	(18.6)	(0.0)	(0.0)	(100.0)	26
	Middle	14.0	180	(27.8)	(37.5)	(34.7)	(0.0)	(100.0)	(6.8)	(54.9)	(9.0)	(29.3)	(0.0)	(0.0)	(100.0)	25
	Fourth	15.1	173	(21.2)	(48.5)	(30.3)	(0.0)	(100.0)	(10.8)	(23.9)	(21.5)	(41.3)	(2.5)	(0.0)	(100.0)	26
	Richest	17.7	133	*	*	*	*	*	*	*	*	*	*	*	*	24
Total		15.6	868	40.1	31.9	27.3	0.8	100.0	13.5	46.6	12.7	24.4	1.2	1.5	100.0	136

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

( ) Based on 25-49 unweighted cases

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

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

		Children with diarrhoea who received:			Pill or syrup: Antibiotic	Pill or syrup: Ant motility	Pill or syrup: Zinc	Pill or syrup: Other	Pill or syrup: Un-known	Injection: Antibiotic	Injection: Non-antibiotic	Injection: Unknown	Intravenous	Home remedy/ Herbal medicine	Other	Not given any treatment or drug	Number of children age 0-59 months with diarrhoea in last two weeks
		ORS or increased fluids	ORT (ORS or recommended home made fluids or increased fluids)	ORT with continued feeding [1]													
Sex	Male	34.3	79.7	46.7	20.3	6.8	0.0	2.2	5.5	4.9	0.0	2.1	0.0	12.7	13.8	20.3	77
	Female	35.5	77.7	46.8	26.1	0.0	4.3	0.0	0.0	0.0	0.0	2.1	0.0	12.7	19.4	22.3	59
Area	Urban	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	17
	Rural	33.7	79.7	47.3	21.1	4.4	2.1	1.4	3.5	1.3	0.0	2.4	0.0	14.5	16.0	20.3	119
Age in months	0-11	(36.1)	(72.9)	(45.0)	(25.1)	(2.9)	(4.5)	(4.7)	(2.8)	(0.0)	(0.0)	(0.0)	(0.0)	(9.7)	(11.8)	(27.1)	36
	12-23	(39.7)	(90.2)	(52.4)	(34.1)	(4.9)	(2.8)	(0.0)	(2.8)	(0.0)	(0.0)	(3.7)	(0.0)	(12.7)	(18.1)	(9.8)	33
	24-35	(35.2)	(72.4)	(48.5)	(12.7)	(4.1)	(0.0)	(0.0)	(0.0)	(3.6)	(0.0)	(3.2)	(0.0)	(18.3)	(12.1)	(27.6)	31
	36-47	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	20
	48-59	38.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	15
Mother's education	None	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	7
	Primary	34.7	75.9	48.0	22.2	2.6	2.4	.6	2.1	0.0	(0.0)	2.7	0.0	13.8	15.3	24.1	104
	Secondary	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wealth index quintiles	Poorest	(29.6)	(82.0)	(40.5)	(30.3)	(2.9)	(2.7)	(1.8)	(4.5)	(0.0)	(0.0)	(4.7)	(0.0)	(16.2)	(22.2)	(18.0)	34
	Second	(11.8)	(64.3)	(40.0)	(12.8)	(2.4)	(0.0)	(0.0)	(3.9)	(0.0)	(0.0)	(4.7)	(0.0)	(20.1)	(17.1)	(35.7)	26
	Middle	(50.9)	(86.9)	(61.4)	(19.8)	(0.0)	(6.3)	(0.0)	(4.0)	(6.2)	(0.0)	(0.0)	(0.0)	(12.1)	(15.9)	(13.1)	25
	Fourth	(39.5)	(80.5)	(63.4)	(18.6)	(9.6)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(10.3)	(11.4)	(19.5)	26
	Richest	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	24
Total		34.8	78.8	46.7	34.8	78.8	46.7	1.3	3.1	2.8	0.0	2.1	0.0	12.7	16.2	21.2	136

[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

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

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 presents the prevalence of suspected pneumonia and, if care was sought outside the home, the site of care. 9per cent of children aged 0-59 months are reported to have had symptoms of pneumonia during the two weeks preceding the survey, with those whose mothers has no education more likely to have had a case of suspected pneumonia than other children. Of all children with suspected pneumonia, only about half (50 per cent) are taken to an appropriate provider. Suspected pneumonia cases are mainly taken to dispensaries (15 per cent), private pharmacies (15 per cent), private clinics (10 per cent), health centres (12 per cent), government hospitals (10 per cent) and mission hospitals (6 per cent).

Table CH.7 also presents the use of antibiotics for the treatment of suspected pneumonia in under-5s by sex, age, region, residence, age, and socioeconomic factors. Only 61 per cent of under-5 children with suspected pneumonia have received an antibiotic during the two weeks prior to the survey. Fifty per cent of children with suspected pneumonia sought care from the appropriate provider.

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

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

| | | | Children with suspected pneumonia who were taken to: | | | | | | | | | | | | | | | | |
| | Had suspected pneumonia in the last two weeks | Number of children age 0-59 months | Public Sources | | | | Private Sources | | | | | | Other sources | | | | 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 |
			Government hospital	Government health centre	Government dispensary	Other public	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	453	(13.0)	(6.9)	(7.2)	(2.1)	(4.1)	(7.6)	(0.0)	(16.9)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(38.3)	(59.7)	41
Female	8.3	415	(0.0)	(17.9)	(23.5)	(0.0)	(8.2)	(14.3)	(0.0)	(11.7)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(63.9)	(62.1)	35
Area																			
Urban	8.1	63	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5
Rural	8.8	806	6.0	11.2	15.7	1.2	6.4	11.4	0.0	14.5	0.0	0.0	0.0	0.0	0.0	0.0	52.0	62.7	71
Age in months																			
0-11	10.3	176	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	18
12-23	8.3	165	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	14
24-35	6.0	172	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	10
36-47	9.3	178	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	17
48-59	9.6	178	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	17
Mother's education																			
None	18.4	53	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	10
Primary	8.5	669	5.6	11.3	10.8	1.5	4.3	12.6	0.0	17.5	0.0	0.0	0.0	0.0	0.0	0.0	46.0	60.6	57
Secondary	6.4	147	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	9
Wealth index quintiles																			
Poorest	7.4	209	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	15
Second	11.1	173	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	19
Middle	7.6	180	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	14
Fourth	7.5	173	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	13
Richest	10.9	133	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	14
Total	8.7	868	7.1	11.9	14.7	1.1	6.0	10.6	0.0	14.5	0.0	0.0	0.0	0.0	0.0	0.0	50.0	60.8	76

[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.

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 CO, polyaromatic hydrocarbons, SO_2, 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).

Overall, the majority (98 per cent) of households in Homa Bay County are using solid fuels for cooking. Use of solid fuels in urban areas is 92 per cent whereas in the rural areas it is 99 per cent. Use of solid fuel does not vary much by wealth quintile. The most common sources of solid fuel are wood (85 per cent) and charcoal (12 per cent).

Table CH.9: Solid fuel use

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

	Percentage of household members in households using:										Solid fuels for cooking [1]	Number of house-hold members
	Natural gas	Liquid pro-pane gas (LPG)	Natural gas	Kero-sene	Char-coal	Wood	Straw/ shrubs/ grass	Agricul-tural crop resi-due	Miss-ing	Total		
Area												
Urban	0.2	1.4	2.2	4.1	78.6	13.2	0.0	0.0	0.3	100.0	91.8	366
Rural	0.0	0.2	0.3	0.3	7.0	91.1	0.7	0.1	0.2	100.0	98.9	4645
Education of household head												
None	0.1	1.1	1.6	0.4	17.2	78.4	0.5	0.2	0.5	100.0	96.3	829
Primary	0.0	0.0	0.2	0.5	9.7	88.7	0.6	0.1	0.2	100.0	99.1	3181
Secondary+	0.0	0.5	0.3	1.3	16.3	80.5	0.9	0.0	0.1	100.0	97.8	966
Missing/DK	(0.0)	(0.0)	(0.0)	(0.0)	(12.1)	(87.9)	(0.0)	(0.0)	(0.0)	(100.0)	(100.0)	34
Wealth index quintiles												
Poorest	0.0	0.0	0.0	0.0	0.0	98.4	1.2	0.4	0.1	100.0	99.9	1110
Second	0.0	0.0	0.0	0.0	0.2	99.3	0.4	0.1	0.0	100.0	100.0	1038
Middle	0.0	0.0	0.0	0.0	3.0	95.6	0.9	0.0	0.5	100.0	99.5	998
Fourth	0.0	0.0	0.0	1.2	15.9	81.8	0.7	0.0	0.4	100.0	98.4	1062
Richest	0.1	1.7	2.9	2.2	51.3	41.5	0.0	0.0	0.3	100.0	92.8	802
Total	**0.0**	**0.3**	**0.5**	**0.6**	**12.2**	**85.4**	**0.7**	**0.1**	**0.2**	**100.0**	**98.4**	**5010**

[1] MICS indicator 3.11
(*) Not shown, based on less than 25 unweighted cases

Solid fuel use alone is a 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 most commonly used places of cooking in Homa Bay County are separate building used as a kitchen (34 per cent), room used for living or sleeping (27 per cent), separate room used as a kitchen (24 per cent) and outdoors (14 per cent).

The proportion cooking in a place used for living or sleeping is highest in urban households (60 per cent) or those in the poorest wealth quintile (42 per cent). On the other hand, the proportion cooking in a separate room used as a kitchen is highest in urban households (30 per cent), households where the head is uneducated (34 per cent) or households in the richest wealth quintile (38 per cent). Rural households are more likely to cook in a separate building than urban households (37 per cent and 5 per cent respectively).

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

	Place of cooking:							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	Others	Missing	Total	
Area								
Urban	60.3	30.4	4.5	3.6	0.0	1.3	100.0	336
Rural	24.2	23.8	36.6	15.0	0.1	0.4	100.0	4594
Education of household head								
None	29.3	33.8	32.4	3.9	0.0	0.6	100.0	798
Primary	27.2	20.3	35.1	17.0	0.1	0.3	100.0	3153
Secondary+	22.4	29.5	33.7	13.5	0.0	0.9	100.0	944
Missing/DK	(35.4)	(20.7)	(32.5)	(11.5)	(0.0)	(0.0)	(100.0)	34
Wealth index quintiles								
Poorest	42.4	18.1	21.2	18.0	0.3	0.0	100.0	1109
Second	22.6	21.0	37.6	18.4	0.0	0.5	100.0	1038
Middle	18.0	22.9	38.8	19.8	0.0	0.5	100.0	993
Fourth	19.4	25.5	47.1	7.2	0.0	0.8	100.0	1045
Richest	30.8	37.7	25.8	5.1	0.0	0.6	100.0	744
Total	**26.7**	**24.2**	**34.4**	**14.2**	**0.1**	**0.5**	**100.0**	**4930**

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 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, the current recommended first line treatment. 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 indoor residual spraying of households.

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

Percentage of households with at least one mosquito net, percentage of households with at least one long-lasting treated net, percentage of households with at least one insecticide treated net (ITN) and percentage of households which either have at least one ITN or have received spraying through an indoor residual spraying (IRS) campaign in the last 12 months, Homa Bay 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
Area	Urban	92.0	86.9	92.4	94.9	88
	Rural	94.2	90.7	92.3	94.3	1002
Education of household head	None	93.4	88.8	89.5	91.5	219
	Primary	93.5	90.8	92.6	94.7	666
	Secondary	96.2	90.9	94.8	96.5	195
	Missing/DK	*	*	*	*	9
Wealth index quintiles	Poorest	92.0	88.2	89.6	91.6	247
	Second	91.1	86.0	89.4	93.4	221
	Middle	97.5	95.7	95.9	97.4	206
	Fourth	94.4	90.3	92.5	93.6	226
	Richest	96.0	92.6	95.2	96.6	189
Total		**94.0**	**90.4**	**92.3**	**94.4**	**1089**

[1] MICS indicator 3.12,

[2] MICS indicator 3.13

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

In Homa Bay County, the survey results indicate a high level of net ownership with 92 percent of households having at least one ITN and 94 per cent having at least one mosquito net (Table CH.11). The availability of nets and vector control methods does not vary markedly by background characteristics.

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, Homa Bay 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:		Number of children age 0-59 months who slept in the household the previous night	Percentage of children who slept under an ITN living in households with at least one ITN	Number of children age 0-59 living in households with at least one ITN
				Slept under any mosquito net [1]	Slept under an insecticide treated net [2]			
Sex	Male	100.0	453	77.3	74.7	453	80.1	422
	Female	100.0	415	80.4	79.1	415	84.6	388
Area	Urban	100.0	63	86.0	84.9	63	90.4	59
	Rural	100.0	806	78.2	76.1	806	81.6	752
Age in months	0-11	100.0	176	81.3	79.4	176	84.7	165
	12-23	100.0	165	81.7	81.4	165	86.8	154
	24-35	100.0	172	80.2	77.9	172	82.8	162
	36-47	100.0	178	80.2	75.6	178	83.1	162
	48-59	100.0	178	70.8	70.0	178	74.3	167
Mother's education	None	100.0	53	84.4	82.0	53	84.0	51
	Primary	100.0	669	76.9	75.2	669	80.6	624
	Secondary	100.0	147	85.4	82.1	147	88.9	135
Wealth index quintiles	Poorest	100.0	209	75.9	74.2	209	79.8	195
	Second	100.0	173	75.6	72.1	173	82.5	151
	Middle	100.0	180	81.9	78.9	180	81.2	175
	Fourth	100.0	173	78.8	77.7	173	83.7	161
	Richest	100.0	133	83.4	82.9	133	85.3	129
Total		**100.0**	**868**	**78.8**	**76.8**	**868**	**82.2**	**810**

[1] MICS indicator 3.14,

[2] MICS indicator 3.15; MDG indicator 6.7

Results indicate that 79per cent of children under the age of five slept under any type of mosquito net the night prior to the survey and 77per cent slept under an ITN (Table CH.12). The proportion of children sleeping under any mosquito net ranges from 71 per cent among children in the 48 to 59 age group to 82 per cent among children in the 12 to 23 years age group. Use of any type of net is 78 per cent in the rural areas and 86 per cent in urban areas. The proportion of children sleeping under mosquito nets does not vary markedly by the other background characteristics.

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, Homa Bay 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
Area	Urban	*	6	*	*	6	*	5
	Rural	100.0	51	76.0	76.0	51	(85.9)	45
Age in months	15-19	*	14	*	*	14	*	13
	20-24	*	11	*	*	11	*	8
	25-29	*	22	*	*	22	*	22
	30-34	*	3	*	*	3	*	1
	35-39	*	4	*	*	4	*	4
	40-44	*	3	*	*	3	*	3
Education	None	*	2	*	*	2	*	2
	Primary	100.0	50	74.9	72.0	50	(81.7)	45
	Secondary +	*	5	*	*	5	*	4
Wealth index quintiles	Poorest	*	15	*	*	15	*	13
	Second	*	13	*	*	13	*	9
	Middle	*	14	*	*	14	*	14
	Fourth	*	8	*	*	8	*	8
	Richest	*	8	*	*	8	*	7
Total		**100.0**	**57**	**76.7**	**74.2**	**57**	**83.9**	**51**

[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 previous night. 77 percent of pregnant women slept under any mosquito net the night prior to the survey and 74 percent slept under an ITN.

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

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

| | | Had a fever in last two weeks | Number of children age 0-59 months | Children with a fever in the last two weeks who were treated with: | | | | | | | | | | | | | Percentage who took an anti-malarial drug same or next day [2] | Number of children with fever in last two weeks |
| | | | | Anti-malarials: | | | | | | | Other medications: | | | | | | |
				SP / Fansidar	Chloro-quine	Armodi-aquine	Quinine	Arte-misinin based combina-tions	Other Anti-malarial	Any anti-malarial drug [1]	Paracetamol/ Panadol/ Acetamino-phan	Aspirin	Ibuprofen	Other	Don't know		
Sex	Male	27.4	453	5.5	1.4	6.4	2.3	29.4	8.4	52.5	56.6	2.3	4.8	17.9	2.1	32.3	124
	Female	28.4	415	4.5	1.9	6.3	3.1	34.3	4.3	47.0	57.9	2.5	5.6	23.0	4.3	30.8	118
Area	Urban	22.5	63	7.0	*	*	*	*	*	*	*	*	*	*	*	*	14
	Rural	28.3	806	4.9	1.7	6.7	2.5	31.5	6.3	49.4	57.5	2.1	5.5	19.9	2.9	31.6	228
Age in months	0-11	16.4	176	(3.0)	(5.5)	(4.3)	(3.1)	(13.8)	(8.8)	(33.1)	(61.2)	(0.0)	(0.0)	(11.1)	(5.7)	(18.3)	29
	12-23	29.1	165	(2.5)	(3.6)	(8.2)	(0.0)	(29.5)	(4.8)	(46.6)	(64.3)	(2.1)	(5.4)	(23.9)	(4.0)	(31.1)	48
	24-35	29.0	172	3.8	1.2	4.6	5.2	28.3	9.0	47.6	62.1	0.0	3.2	20.5	2.0	16.9	50
	36-47	36.7	178	5.8	0.0	5.8	1.6	38.6	5.0	53.6	48.9	5.7	7.2	26.4	0.9	42.9	66
	48-59	28.1	178	8.8	0.0	8.0	3.9	38.8	5.7	59.7	54.2	2.0	7.4	14.3	5.0	39.6	50
Mother's education	None	24.6	53	*	*	*	*	*	*	*	*	*	*	*	*	*	13
	Primary	29.8	669	4.6	2.0	7.7	1.7	31.4	6.8	49.7	59.1	2.9	6.3	19.6	3.3	32.7	199
	Secondary	20.2	147	(10.2)	(0.0)	(0.0)	(7.3)	(35.2)	(6.7)	(59.4)	(49.6)	(0.0)	(0.0)	(27.4)	(0.0)	(28.8)	30
Wealth index quintiles	Poorest	29.6	209	1.7	2.8	1.2	0.0	33.1	3.3	40.5	60.7	2.9	5.8	16.4	4.1	29.6	62
	Second	33.3	173	2.7	1.1	7.5	1.5	35.2	7.0	52.2	59.8	1.7	3.4	21.7	2.7	34.1	58
	Middle	27.9	180	4.0	3.1	11.0	7.6	29.7	12.7	61.6	54.9	2.0	5.9	19.7	1.9	35.4	50
	Fourth	26.9	173	(14.2)	(0.0)	(6.8)	(2.3)	(25.2)	(4.1)	(45.8)	(52.7)	(2.1)	(4.7)	(28.6)	(3.5)	(25.6)	46
	Richest	19.3	133	(3.3)	(0.0)	(6.0)	(2.9)	(36.8)	(4.3)	(50.9)	(55.9)	(3.9)	(7.3)	(13.4)	(3.9)	(34.4)	26
Total		27.9	868	5.0	1.6	6.3	2.7	31.8	6.4	49.8	57.2	2.4	5.2	20.4	3.2	31.6	242

[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. 28 per cent of under five children were ill with fever in the two weeks prior to the survey. Prevalence of fever was 23 per cent and 28 per cent in children living in rural areas and in urban areas respectively.

There was no marked variation in the prevalence of fever amongst children by age group, mother's education or wealth quintiles. However, the prevalence of fever in the two week prior to the survey ranged from 16 per cent in children in the 0 to 11 months age group to 37 per cent in children in 36 to 47 month age group.

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, 32per cent of children with fever in the last two weeks were treated with artemisinin combination drugs (the recommended first line antimalarial) whilst about half (50 per cent) received any antimalarial. 32per cent receive anti-malarial drugs within 24 hours or on the next day after onset of symptoms.

Owing to widespread resistance, the anti-malarial drugs chloroquine, SP and amodiaquine have been replaced with artemisinin combinations for first line treatment of malarial fevers in Kenya. Consistent with the withdrawal of chloroquine and SP and the introduction of artemisinin combinations, 32 per cent of fevers are treated with artemisinin combinations whilst only 5 per cent of children are given SP. Other than antimalarials, children with fever are given other types of medicines including anti-pyretics such as paracetamol (57 per cent), ibuprofen (5 per cent), aspirin (2 per cent), and medicines (20 per cent).The promptness of treatment with artemisinin combination treatments or any other kind of antimalarial is comparable by gender at 32 per cent of male children and 31 per cent of female children.

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 anemia, 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 ITN and treatment during antenatal check-ups with drugs that prevent malaria infection (Intermittent preventive treatment or IPT). In the Homa Bay 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 IPT 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, 93 per cent of women aged 15-49 who have had a live birth in the 2 years preceding the survey receive antenatal care. Less than half (44 per cent) receive at least 1 dose of SP/Fansidar whilst only a quarter (25 per cent) per cent receive the recommended IPT dose (2 or more 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, Homa Bay County, 2011				Percentage of pregnant women who took:			Number of women who had a live birth in the last two years and who received antenatal care
		Percentage of women who received antenatal care (ANC)	Number of women who gave birth in the preceding two years	Any medicine to prevent malaria at any ANC visit during pregnancy	SP/Fansidar at least once	SP/Fansidar two or more times [1]	
Area	Urban	*	24	*	*	*	21
	Rural	92.8	293	64.2	44.1	24.9	272
Education	None	*	15	*	*	*	14
	Primary	92.5	244	64.9	45.3	25.1	226
	Secondary	93.1	57	59.7	34.2	22.3	53
Wealth index quintiles	Poorest	92.4	78	66.5	51.3	26.5	72
	Second	95.7	63	62.0	42.8	25.3	60
	Middle	89.5	56	67.5	49.3	25.7	51
	Fourth	92.5	65	57.7	31.7	17.3	60
	Richest	92.8	54	70.9	45.0	30.7	50
Total		**92.6**	**316**	**64.7**	**44.1**	**24.9**	**293**

[1] MICS indicator 3.20

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

VII. Water and Sanitation

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 handwashing and cooking.

Table WS.1: Use of improved water sources

Percentage distribution of household population according to main source of drinking water and percentage of household population using improved drinking water sources, Homa Bay County, 2011

	Main source of drinking water																	
	Improved sources										Unimproved sources							
	Piped water					Tube-well/ bore-hole	Protected well	Protected spring	Rain-water collection	Bottled water	Unpro-tected well	Unpro-tected spring	Tanker-truck	Cart with small tank/ drum	Surface water	Total	Percentage using improved sources of drinking water [1]	Number of household members
	Piped into dwelling	Piped into compound, yard or plot	Piped to neighbor	Piped to water kiosk	Public tap/ standpipe													
Residence																		
Urban	10.2	14.3	14.6	11	20.6	2	1.8	4.8	0	0.3	3.9	0	0	0.3	16.3	100	58.9	366
Rural	0.1	0.5	1.3	0.9	6.1	7.6	13.7	2.9	5.7	0	7.9	4.2	0	0.2	48.8	100	32.8	4645
Education of household head																		
None	2.1	2.2	3.2	1.7	5.2	8.1	12.3	2.8	4.6	0.1	12.5	2.3	0	0.7	42.3	100	37.1	829
Primary	0.4	1.2	2.2	1.9	7.9	7.3	13.8	2.6	4.5	0	6.3	4.4	0	0.1	47.4	100	33.8	3181
Secondary+	1.3	2.2	1.8	0.8	6.4	6.4	9.4	5.1	7.6	0	7.5	3.6	0	0.3	47.6	100	34.6	966
Missing /DK	0	0	0	0	0	0	26.5	0	32.5	0	12.8	0.0	0.0	0.0	19.6	100.0	59.0	34
Wealth index quintile																		
Poorest	0	0	0.3	0.4	1.2	5.8	16.4	2.7	0	0	5.5	2.8	0	0	64.8	100	25.7	1110
Second	0	0	0.7	1.4	4.9	7.2	15.6	3.7	1.9	0	10.6	5.3	0	0	48.6	100	30.6	1038
Middle	0	0.6	2.1	0.5	9.7	7.4	11.2	2.9	8.3	0	8.5	4.5	0	0	44.2	100	33.1	998
Fourth	0	0.8	3.1	1	9.2	10.1	11.9	2.8	7.7	0	5	5.7	0	0.5	42.2	100	37.3	1062
Richest	5.3	7.8	6.2	5.9	12.5	4.9	7.2	3.4	10.1	0.1	8.7	0.5	0.2	0.8	26.4	100	50.9	802
Total	**0.8**	**1.5**	**2.3**	**1.6**	**7.2**	**7.2**	**12.8**	**3.1**	**5.3**	**0**	**7.6**	**3.9**	**0**	**0.2**	**46.4**	**100**	**34.7**	**5010**

[1] MICS indicator 4.1; MDG indicator 7.8

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.

Overall, slightly more than 1 in 3 (35 per cent) of the population is using an improved source of drinking water in Homa Bay County. The most frequently used improved drinking water source is protected wells (13 per cent) whilst the most commonly used unimproved source of drinking water is surface water (46 per cent).

The proportion population using improved water sources differs by area of residence and household wealth status. Approximately 59 per cent of the household population in the urban regions has access to improved sources of drinking water compared to 33 per cent of their rural counterparts. The dominant improved source of drinking water in urban regions is public tap/standpipe (21 per cent), whereas in rural areas it is protected springs (14 per cent). The population in the richest Households is twice as likely to use improved source of drinking water as their poorer counterparts (51 per cent and 26 per cent respectively).

Figure WS.1: Percentage distribution of household members by source of drinking water, Homa Bay, 2011
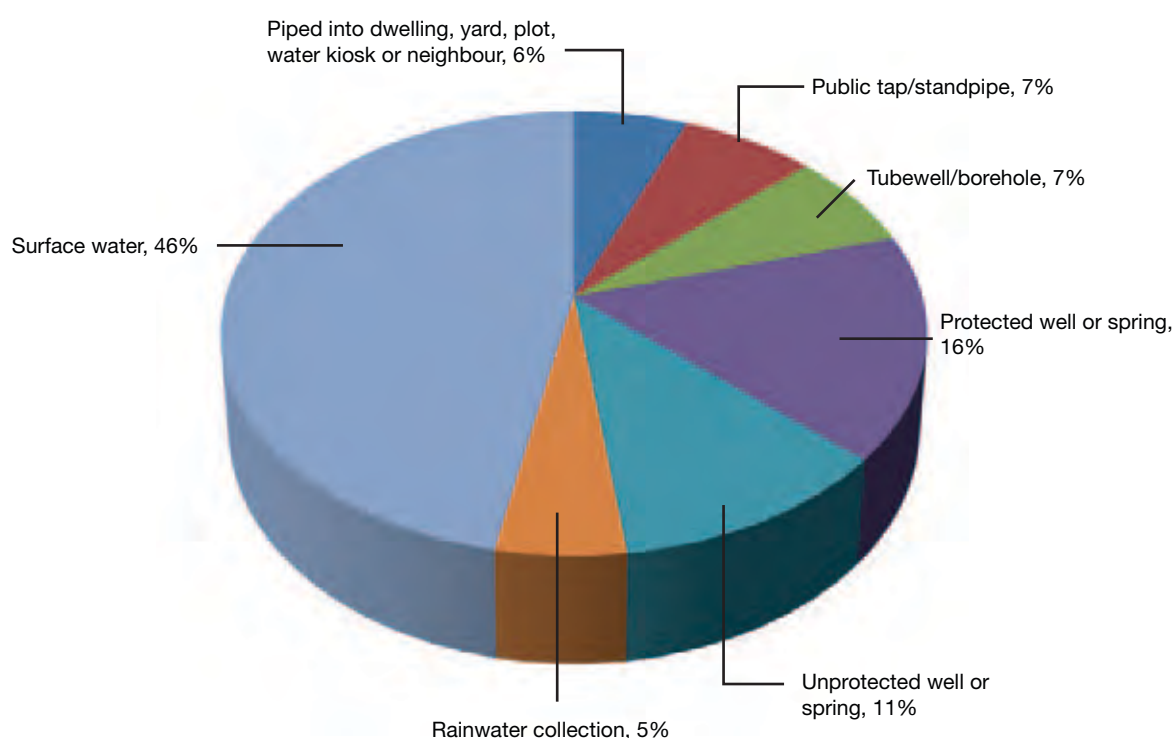
Use of Adequate Water Treatment Method

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 were 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, 73 per cent of the population in Homa Bay County use unimproved drinking water sources use an appropriate water treatment method. The water treatment methods commonly used are adding bleach/chlorine (58 per cent) and boiling (16 per cent). However, more than a quarter (27 per cent) of the population whose drinking water sources were unimproved is not using any water treatment methods.

Whilst only 72 per cent of the rural population use appropriate water treatment method, as high as 95 per cent of their urban counterparts use appropriate water treatment method. The use appropriate water treatment is 64 per cent of poorest household population and 88 per cent among the richest household population.

Table WS.2: Household water treatment

	Water treatment method used in the household									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
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, Homa Bay County, 2011											
	None	Boil	Add bleach / chlorine	Strain through a cloth	Use water filter	Solar disin-fection	Let it stand and settle	Other	Number of household members		
Residence											
Urban	10.8	16.6	77.9	2.7	0.6	0.0	1.2	1.8	366	95.1	75
Rural	28.7	16.3	56.9	3.9	0.7	0.3	1.5	0.3	4645	71.9	2839
Education of household head											
None	30.5	22.7	49.1	6.4	0.6	0.2	1.2	1.2	829	63.5	479
Primary	29.5	14.3	58.0	2.9	0.7	0.2	1.9	0.0	3181	70.4	1854
Secondary+	18.3	18.2	67.9	3.6	0.4	0.5	0.4	1.2	966	86.7	570
Missing /DK	(5.8)	(3.8)	(57.9)	(32.5)	(0.0)	(0.0)	(0.0)	(0.0)	34	*	11
Wealth index quintile											
Poorest	39.5	10.8	49.7	4.1	0.4	0.6	2.3	0.0	1110	63.6	811
Second	31.3	16.8	49.4	6.2	0.9	0.0	1.9	0.2	1038	64.3	670
Middle	27.4	13.0	60.5	1.7	0.0	0.0	0.0	0.5	998	78.3	571
Fourth	23.1	19.3	62.3	4.1	0.5	0.0	2.3	0.7	1062	81.1	568
Richest	11.2	23.7	74.3	2.8	1.9	0.8	0.6	0.8	802	87.8	294
Total	**27.4**	**16.3**	**58.4**	**3.8**	**0.7**	**0.3**	**1.5**	**0.4**	**5011**	**72.5**	**2914**

[1] MICS indicator 4.2
( ) Based on 25-49 unweighted cases.
* Not shown, based on less than 25 unweighted cases.

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 was not collected.

Overall, Table WS.3 shows that for 11 per cent of population, the improved drinking water source is on the premises. The prevalence of households with water on their premises is 9 per cent for rural households and 40 per cent for urban households. The percentage of those with water on premises by household wealth status ranges from 3 per cent in households in the lowest wealth quintile to 31 per cent in households in the highest 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, Homa Bay County, 2011									
	Time to source of drinking water								Number of house-hold members
	Users of improved drinking water sources				Users of unimproved drinking water sources				
	Water on prem-ises	Less than 30 minutes	30 min-utes or more	Missing/DK	Water on prem-ises	Less than 30 minutes	30 min-utes or more	Missing/DK	Total	
Area										
Rural	39.9	27.3	12.4	0.0	0.0	13.1	7.0	0.3	100.0	366
Urban	9.0	11.9	17.7	0.3	1.2	25.1	34.5	0.4	100.0	4645
Education of household head										
None	14.1	11.3	16.3	0.5	3.5	26.6	27.7	0.0	100.0	829
Primary	9.0	13.4	19.1	0.2	0.8	21.4	35.9	0.2	100.0	3181
Secondary+	15.2	12.4	12.9	0.5	0.0	31.7	26.0	1.3	100.0	966
Missing/DK	(32.5)	(35.1)	(0.0)	(0.0)	(0.0)	(12.1)	(20.3)	(0.0)	(100.0)	34
Wealth index quintiles										
Poorest	3.0	6.4	17.5	0.0	0.0	27.1	45.6	0.4	100.0	1110
Second	3.1	12.8	19.1	0.5	1.7	26.0	36.8	0.0	100.0	1038
Middle	9.7	10.9	21.3	0.8	0.4	21.3	35.5	0.0	100.0	998
Fourth	14.1	17.8	14.5	0.1	1.8	22.6	28.7	0.5	100.0	1062
Richest	31.2	18.8	13.4	0.0	1.6	23.5	10.2	1.2	100.0	802
Total	**11.2**	**13.0**	**17.3**	**0.3**	**1.1**	**24.2**	**32.5**	**0.4**	**100.0**	**5010**
(*) Not shown, based on less than 25 unweighted cases.										

Thirteen per cent of household members take less than 30 minutes to fetch water from their improved drinking water source, whilst this task requires 30 minutes or more for 17 per cent of the household population.

Person Collecting Water

Table WS.4 shows that for the majority of households where the source of drinking water is not on the premises (89 per cent), an adult female is usually the person collecting the water (84 per cent). An adult woman is responsible for water collection for use in 85 per cent of rural households and in 80 per cent of urban households. The proportion of households where women are responsible for water collection increases as the level of education of household head increases - 76 per cent of households where the head has no education compared to 87 per cent where the head has attained either primary or secondary education or higher.

Table WS.4: Person collecting water

	Percentage of house-holds with-out 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)	DK	Missing	Total	
Residence										
Urban	71.4	88	79.6	13.9	3.3	3.3	0.0	0.0	100.0	65
Rural	90.2	1002	84.9	7.3	5.6	2.0	0.1	0.2	100.0	994
Education of household head										
None	85.7	219	76.0	10.5	10.1	3.4	0.0	0.0	100.0	209
Primary	90.6	666	86.6	6.4	4.9	1.7	0.1	0.3	100.0	654
Secondary+	85.7	195	86.5	9.2	2.6	1.7	0.0	0.0	100.0	187
Missing/DK	(*)	9	(*)	(*)	(*)	(*)	(*)	(*)	100.0	9
Wealth index quintile										
Poorest	97.9	247	84.2	6.8	5.5	2.9	0.0	0.6	100.0	247
Second	93.3	221	87.2	4.2	7.1	1.5	0.0	0.0	100.0	221
Middle	88.1	206	86.3	6.7	5.7	1.3	0.0	0.0	100.0	205
Fourth	88.5	226	86.8	6.1	4.5	2.6	0.0	0.0	100.0	225
Richest	71.8	189	75.5	18.2	4.2	1.5	0.6	0.0	100.0	162
Total	**88.6**	**1089**	**84.5**	**7.7**	**5.5**	**2.0**	**0.1**	**0.2**	**100.0**	**1059**

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, Homa Bay County, 2011

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

Overall, only 8 per cent of Homa Bay County households have an adult man responsible for collection of water - 7 per cent in rural areas and double this proportion (14 per cent) in urban areas.

Cumulatively, children under age 15 engage in water collection activities in 8 per cent of the households, with similar proportion in both rural and urban areas (8 per cent and 7 per cent respectively). Female children under 15 years of age are three times more likely engage in water collection activities compared to their male counterparts (6 per cent and 2 per cent respectively). Children from households where the heads has had no education are more than three times more likely to be collecting water, compared to those from households where the head has secondary education or higher (14 per cent versus 4 per cent cumulatively for both male and female children under 15 years).

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, pit latrine with slab, and composting toilet.

According to Table WS.5, 38 per cent of the household population in Homa Bay County use improved sanitation facilities. Overall, of all improved sanitation facilities, pit latrines with slabs are the most frequently used (29 per cent) - 48 per cent in urban areas and 28 per cent in rural areas. Only 2 per cent

use the flush system in their households. On the other hand, as high as 34 per cent of Homa Bay County households simply have no facilities at all and therefore resort to open defecation. One out of every three (37 per cent) household members in rural areas lack sanitation facilities compared to 2 per cent urban dwellers.

Use of improved sanitation facilities is higher in urban (82 per cent) compared to rural (34 per cent). Approximately 3 per cent of the poorest wealth quintile has improved sanitation facilities and 78 per cent in of household population in the highest wealth quintile.

Sixty two per cent of the population in Homa Bay County use unimproved sanitation facilities (including open defecation). Majority of this population is located in rural areas (66 per cent) where a great proportion of them use pit latrines without slab/open pit (28 per cent). There is a notable difference between the proportion of household members using unimproved sanitation facilities and wealth status of household. Whilst this proportion of unimproved sanitation facilities users in the poorest quintile is as high at 97 per cent, it is 22 per cent in household populations in the highest wealth quintile (22 per cent).

Table WS.5: Types of sanitation facilities

Per cent distribution of household population according to type of toilet facility used by the household, Homa Bay County, 2011

| | 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	Pit latrine	To somewhere else	Unknown place/not sure/DK where	Ventilated improved pit latrine	Pit latrine with slab	Composting toilet	Pit latrine without slab/open pit	Hanging toilet/Hanging latrine	Other	Missing	Open defecation (no facility, bush, field)	Total	Number of household members
Area															
Urban	12.3	4.2	5.2	0.3	3.2	8.5	47.8	0.0	16.8	0.0	0.0	0.0	1.7	100.0	366
Rural	0.0	0.1	0.6	0.0	0.0	5.5	27.9	0.1	28.4	0.3	0.4	0.2	36.5	100.0	4645
Education of household head															
None	3.1	0.6	0.5	0.0	0.0	8.6	28.7	0.0	28.8	0.0	0.4	0.0	29.3	100.0	829
Primary	0.1	0.4	0.5	0.0	0.3	4.3	26.6	0.2	28.5	0.5	0.3	0.3	38.1	100.0	3181
Secondary+	1.6	0.4	2.6	0.0	0.0	7.9	38.9	0.0	23.2	0.0	0.6	0.0	24.8	100.0	966
Missing/DK	(0.0)	(0.0)	(0.0)	(0.0)	8.6	(0.0)	(32.5)	(0.0)	38.6	(0.0)	(0.0)	(0.0)	(20.3)	100.0	34
Wealth index quintile															
Poorest	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	27.0	0.0	0.0	0.2	70.0	100.0	1110
Second	0.0	0.0	0.0	0.0	0.0	0.0	13.1	0.0	36.3	0.9	0.6	0.6	48.5	100.0	1038
Middle	0.0	0.0	0.5	0.0	0.0	2.4	42.6	0.5	29.2	0.0	0.6	0.0	24.2	100.0	998
Fourth	0.0	0.0	1.7	0.0	0.3	8.0	49.8	0.0	25.2	0.6	0.7	0.0	13.7	100.0	1062
Richest	5.6	2.6	2.6	0.1	1.1	22.0	43.6	0.0	18.3	0.0	0.0	0.0	4.2	100.0	802
Total	**0.9**	**0.4**	**0.9**	**0.0**	**0.2**	**5.7**	**29.3**	**0.1**	**27.6**	**0.3**	**0.4**	**0.2**	**33.9**	**100.0**	**5010**

( ) Based on 25–49 unweighted cases.

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.

Table WS.6, shows that sharing of improved sanitation facilities is 23 per cent whereas sharing of unimproved sanitation facilities is 14 per cent. The proportion of households with private facilities is similar for both improved and unimproved sanitation facilities (15 per cent and 14 per cent respectively).The use of improved unshared sanitation facilities ranges from less than 1 per cent in household populations in the lowest wealth quintile to 26 per cent in household populations in the highest wealth quintile.

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, Homa Bay County, 2011

| | Users of improved sanitation facilities | | | | | Users of unimproved sanitation facilities | | | | | Open defecation (no facility, bush field) | Total | Number of household members |
	Not shared [1]	Public facility	Shared by: 5 households or less	Shared by: More than 5 households	Missing/ DK	Not shared	Public facility	Shared by: 5 households or less	Shared by: More than 5 households	Missing/ DK			
Residence													
Urban	15.5	1.2	25.2	37.1	2.5	2.7	3	3.2	8	0	1.7	100	366
Rural	14.5	1.2	16	2.1	0.3	14	1.1	13.4	0.7	0.2	36.5	100	4645
Education of household head													
None	18.8	1	18.1	3	0.6	12.6	1.4	14	1.2	0	29.3	100	829
Primary	11.4	1.4	15.2	4	0.4	14	1.1	13.2	1.2	0.1	38.1	100	3181
Secondary +	22.1	0.8	19.9	8.1	0.4	11.5	1.2	9.3	1.3	0.5	24.8	100	966
Missing/DK	(0.0)	(0.0)	(32.5)	(8.6)	(0.0)	(0.0)	(12.1)	(22.7)	(3.8)	(0.0)	(20.3)	100.0	34
Wealth index quintile													
Poorest	0.7	0	2.1	0	0	13.6	1.8	11.4	0	0.4	70	100	1110
Second	6.2	0	5.6	1.3	0	16.4	1.2	19	1.7	0	48.5	100	1038
Middle	19.3	1.7	21.9	2.5	0.7	13.7	1.3	14.6	0.1	0	24.2	100	998
Fourth	24.3	2.7	27.6	4.7	0.5	14.4	0.2	9.5	2	0.5	13.7	100	1062
Richest	26.3	1.7	30.3	18.1	1.1	6	1.9	7.7	2.7	0	4.2	100	802
Total	**14.6**	**1.2**	**16.7**	**4.7**	**0.4**	**13.2**	**1.3**	**12.6**	**1.2**	**0.2**	**33.9**	**100**	**5010**

[1] MICS indicator 4.3; MDG indicator 7.9
( ) Based on 25-49 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 Homa Bay County, stools are disposed safely for slightly over a half (53 per cent) of children aged 0-2 years. The most common method of disposing children's stools in households where there is a sanitation facility is to put/rinse into toilet or latrines (51 per cent).

The percentage of children whose stools was disposed of safely is 75 per cent in households using improved sanitation facilities and 80 per cent in households using unimproved sanitation facilities

Places of disposal varied with area of residence and wealth status. Children's waste is more likely to be disposed in toilets or latrines in urban (81 per cent) compared to rural areas (48 per cent). The level of household wealth is an important factor in the prevalence of children whose stools were disposed off safely. This is 25 per cent in households within the poorest wealth quintile whereas it is 87 per cent in the richest wealth quintile.

Table WS.7: Disposal of child's faeces

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

	Child used toilet/latrine	Place of disposal of child's faeces								Total	Percentage of children whose stools were disposed of safely [1]	Number of children age 0-2 years
		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			
Type of sanitation facility in dwelling												
Improved	4.4	70.9	3.6	5.5	4.4	7.6	0.4	0.5	2.8	100.0	75.3	209
Unimproved	1.3	79.1	2.5	2.0	5.9	5.6	0.8	0.8	2.1	100.0	80.3	125
Open defecation	0.0	5.8	6.5	13.3	35.1	31.7	3.4	0.6	3.7	100.0	5.8	172
Residence												
Urban	(6.6)	(81.3)	(5.1)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(6.9)	(100.0)	(88.0)	41
Rural	1.7	48.1	4.2	7.9	16.6	16.7	1.7	0.6	2.5	100.0	49.8	466
Mother's education												
None	(2.1)	(80.3)	(0.0)	(6.9)	(0.0)	(3.5)	(7.1)	(0.0)	(0.0)	(100.0)	(82.5)	29
Primary	2.1	44.4	4.9	7.5	18.4	18.1	1.0	0.3	3.4	100.0	46.5	383
Secondary+	2.3	67.6	3.2	6.5	7.1	7.5	2.0	2.1	1.8	100.0	69.8	95
Wealth index quintile												
Poorest	0.5	24.4	5.9	10.4	26.7	27.9	2.4	0.0	1.8	100.0	24.9	117
Second	0.0	36.7	2.3	8.3	20.3	25.0	4.1	0.0	3.3	100.0	36.7	95
Middle	1.8	48.9	6.2	9.1	15.1	13.1	1.0	2.0	2.7	100.0	50.8	103
Fourth	5.4	66.4	2.4	6.3	11.1	6.3	0.0	0.0	2.1	100.0	71.7	99
Richest	3.2	83.7	4.2	1.4	0.0	1.6	0.0	1.1	4.9	100.0	86.9	93
Total	**2.1**	**50.8**	**4.3**	**7.3**	**15.2**	**15.3**	**1.5**	**0.6**	**2.9**	**100.0**	**52.9**	**507**

[1] MICS indicator 4.4
( ) Based on 25-49 unweighted cases.

Drinking water and sanitation ladders

In its 2008 report[7], 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 Homa Bay County, 35 per cent of the population use improved drinking water (piped into dwelling/plot/yard, other improved), and only 15 per cent use improved sanitation facilities. These two proportions increase with increasing levels of household wealth status - 26 and 51 per cent respectively of households in the poorest and richest quintiles that have improved drinking water sources, and 1 and 26 per cent for households in the poorest and richest quintiles have improved sanitation facilities respectively.

Only 1 out of 20 persons (5 per cent) have both improved drinking water sources and improved sanitation facilities. This differs by area of residence and the level of household wealth. 5 per cent of the rural household population and 10 per cent of urban household population have access to both improved drinking water and improved sanitation. None in the households categorized in the poorest quintile has both improved sanitation facilities and drinking water whereas 15 per cent of the population from households in the richest quintile has both improved drinking water and improved sanitation facilities.

7   *WHO/UNICEF JMP (2008), MDG assessment report* - http://www.wssinfo.org/download?id_document=1279

Table WS.8: Drinking water and sanitation ladders

Percentage of household population by drinking water and sanitation ladders, Homa Bay County, 2011

	Percentage of household population using:										
	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			
Residence											
Urban	24.7	34.2	41.1	100.0	15.5	66.0	16.8	1.7	100.0	9.6	366
Rural	0.6	32.1	67.2	100.0	14.5	19.6	29.4	36.5	100.0	5.0	4645
Education of household head											
None	4.4	32.7	62.9	100.0	18.8	22.7	29.2	29.3	100.0	4.9	829
Primary	1.6	32.2	66.2	100.0	11.4	20.9	29.6	38.1	100.0	4.1	3181
Secondary+	3.5	31.2	65.4	100.0	22.1	29.2	23.8	24.8	100.0	10.0	966
Missing/DK	*	100.0	*	100.0	*	*	100.0	*	100.0	*	3
Wealth index quintile											
Poorest	0.0	25.7	74.3	100.0	0.7	2.1	27.2	70.0	100.0	0.0	1110
Second	0.0	30.6	69.4	100.0	6.2	7.0	38.4	48.5	100.0	1.4	1038
Middle	0.6	32.4	66.9	100.0	19.3	26.8	29.8	24.2	100.0	2.7	998
Fourth	0.8	36.6	62.7	100.0	24.3	35.5	26.6	13.7	100.0	9.9	1062
Richest	13.2	37.7	49.1	100.0	26.3	51.2	18.3	4.2	100.0	15.0	802
Total	**2.4**	**32.3**	**65.3**	**100.0**	**14.6**	**23.0**	**28.5**	**33.9**	**100.0**	**5.3**	**5010**

[1] MICS indicator 4.1; MDG indicator 7.8
[2] MICS indicator 4.3; MDG indicator 7.9
( ) Based on 25-49 unweighted cases.
*Less than 25 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 handwashing.

In Homa Bay County, a place of handwashing is observed in merely 3 per cent of the households. The remaining 97 per cent of households did not have their handwashing place observed as this designated area is not in the dwelling/plot/yard (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, Homa Bay County, 2011

	Percentage of households where place for hand washing was observed	Percentage of households where place for handwashing was not observed				Number of house holds	Per cent distribution of households where place for handwashing was observed, where:					Number of house holds where place for hand washing was observed
		Not in dwelling/ plot/yard	No permis sion 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	Total	
Area												
Urban	7.3	92.7	0.0	0.0	100.0	88	(*)	(*)	(*)	(*)	(*)	6
Rural	2.5	97.3	0.1	0.2	100.0	1002	(58.7)	(7.9)	(22.6)	(10.8)	(100.0)	25
Education of household head												
None	5.5	94.5	0.0	0.0	100.0	219	(*)	(*)	(*)	(*)	(*)	12
Primary	1.5	98.2	0.1	0.2	100.0	666	(*)	(*)	(*)	(*)	(*)	10
Secondary+	4.4	95.3	0.0	0.3	100.0	195	(*)	(*)	(*)	(*)	(*)	9
Missing/DK	*	*	*	*	*	9	*	*	*	*	*	0
Wealth index quintiles												
Poorest	0.5	99.5	0.0	0.0	100.0	247	(*)	(*)	(*)	(*)	(*)	1
Second	0.7	99.3	0.0	0.0	100.0	221	(*)	(*)	(*)	(*)	(*)	2
Middle	1.1	98.9	0.0	0.0	100.0	206	(*)	(*)	(*)	(*)	(*)	2
Fourth	2.4	96.9	0.0	0.7	100.0	226	(*)	(*)	(*)	(*)	(*)	5
Richest	10.8	88.9	0.3	0.0	100.0	189	(*)	(*)	(*)	(*)	(*)	20
Total	**2.8**	**97.0**	**0.1**	**0.1**	**100.0**	**1089**	**(67.2)**	**(6.3)**	**(17.9)**	**(8.6)**	**(100.0)**	**31**

[1] MICS indicator 4.5
(*) Not shown, based on less than 25 unweighted cases.
( ) Based on 25–49 unweighted cases.

Availability of soap

The place of handwashing was observed in only 3 per cent of Homa Bay County households. Of these, 2 per cent have had their soap observed. Even so, in household that the handwashing place was not observed (97 per cent), the survey observer is shown soap in 82 per cent of the household. Majority are households in urban areas (86 per cent) or those headed by one who has attained secondary education and higher (84 per cent). Fifteen per cent, however, do not have a designated place for handwashing or soap isn't shown either.

Overall, 85 per cent of the Homa Bay County households have soap anywhere in the dwelling - 84 per cent in rural households and 94 per cent in urban households. The proportion of household that have soap anywhere in the dwelling is comparableacross households by the education background of the household head and ranges between 83 per cent in households headed by a person with primary school education to 89 per cent in households headed by a person with secondary education or higher.

Table WS.10: Availability of soap

Per cent distribution of households by availability of soap in the dwelling, Homa Bay County, 2011

| | Place for handwashing observed | | | | Place for handwashing not observed | | | | Percentage of households with soap anywhere in the dwelling [1] | Number of households |
| | | Soap not observed at place for handwashing | | | | | | | | |
	Soap observed	Soap shown	No soap in household	Total	Soap shown	No soap in household	Not able/Does not want to show soap	Total		
Area										
Urban	7.3	0.0	0.0	7.3	86.4	6.3	0.0	92.7	93.7	88
Rural	2.0	0.4	0.1	2.5	81.4	16.1	0.1	97.5	83.8	1002
Education of household head										
None	4.0	1.5	0.0	5.5	80.4	14.1	0.0	94.5	85.9	219
Primary	1.4	0.0	0.1	1.5	81.5	16.8	0.1	98.5	83.0	666
Secondary+	4.1	0.4	0.0	4.4	84.0	11.5	0.0	95.6	88.5	195
Missing/DK	*	*	*	*	*	*	*	*	*	9
Wealth index quintile										
Poorest	0.3	0.0	0.2	0.5	78.5	21.0	0.0	99.5	78.8	247
Second	0.7	0.0	0.0	0.7	82.8	16.5	0.0	99.3	83.5	221
Middle	1.1	0.0	0.0	1.1	78.9	20.1	0.0	98.9	79.9	206
Fourth	1.6	0.9	0.0	2.4	85.7	11.8	0.0	97.6	88.2	226
Richest	9.7	1.1	0.0	10.8	83.5	5.4	0.3	89.2	94.3	189
Total	**2.4**	**0.4**	**0.1**	**2.8**	**81.8**	**15.3**	**0.1**	**97.2**	**84.6**	**1089**

[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 Homa Bay County is 5.2 children per woman The adolescent birth rate (age-specific fertility rate for women age 15-19) in the two years preceding the survey is 203 births per 1000 women. ASFR is highest in the 20-24 age group. 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, Homa Bay 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	203 [1]	231	230	240	211
20-24	279	312	323	303	387
25-29	222	264	288	276	217
30-34	199	216	262	194	251
35-39	89	169	114	190	253
40-44	35	60	101	108	NA
45-49	8	44	NA	NA	NA
Total Fertility Rate	**5.2**	**6.5**	**6.6**	**6.6**	**6.6**

[1] MICS indicator 5.1; MDG indicator 5.4
Note: Age-specific fertility rates are per 1,000 women.

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 3.5 and that of children surviving is 2.9. Women in Homa Bay County attain a parity of 7.3 children per woman at the end of their childbearing period. This is 2.1 children above the current total fertility rate (5.2 children per woman).

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

Mean and total numbers of children ever born and children surviving by age of women, Homa Bay County, 2011					
	Children ever born		Children surviving		Number of women
	Mean	Total	Mean	Total	
Age					
15-19	0.5	112	0.5	105	229
20-24	1.9	356	1.7	323	185
25-29	3.5	726	3.0	632	210
30-34	4.7	615	3.9	513	130
35-39	5.9	733	4.7	584	125
40-44	6.1	519	4.8	407	85
45-49	7.3	503	5.6	388	69
Total	**3.5**	**3564**	**2.9**	**2952**	**1033**

Early childbearing

Sexual activity and childbearing early in life carry significant risks for young people all around the world. Table RH.2 presents some early childbearing indicators for women age 15-19 and 20-24 while Table RH.3 presents the trends for early childbearing. As shown in Table RH.2, 37 per cent of women age 15-19 have already had a birth, three per cent are pregnant with their first child, 40 per cent have begun childbearing and eight per cent have had a live birth before age 15. Forty seven per cent of 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, Homa Bay County, 2011							
	Percentage of women age 15-19 who:					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	Number of women age 15-19		
Residence							
Urban	(*)	(*)	(*)	(*)	19	(*)	20
Rural	37.9	2.1	40.0	9.2	191	47.7	150
Education							
None	(*)	(*)	(*)	(*)	2	(*)	9
Primary	40.4	4.0	44.4	8.4	142	64.6	108
Secondary +	30.5	0.0	30.5	8.4	66	17.8	52
Wealth index quintile							
Poorest	35.8	2.0	37.7	13.0	50	(64.0)	34
Second	(35.7)	(3.3)	(39.0)	(7.1)	30	(57.4)	34
Middle	(33.6)	(3.7)	(37.3)	(14.7)	33	(40.6)	26
Fourth	(40.0)	(1.6)	(41.6)	(6.0)	53	(46.2)	36
Richest	(39.7)	(3.8)	(43.4)	(2.2)	45	(29.6)	39
Total	**37.3**	**2.7**	**40.0**	**8.4**	**210**	**47.3**	**169**

[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, 12 per cent of women aged 15-49 years have a live birth before age 15 while more than half (52 per cent) of women aged 20-49 years have had a live birth before age 18 as shown in Table RH.3. Fifty four per cent of the women aged 20-49 who reside in rural areas and 39 per cent of women residing in urban areas had a live birth before they were 18 years old.

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, Homa Bay County, 2011

	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
Age												
15-19	(*)	19	NA	0	9.2	191	NA	0	8.4	210	NA	0
20-24	(*)	20	(*)	20	12.9	150	47.7	150	12.3	169	47.3	169
25-29	(*)	21	(*)	21	10.7	176	56.2	176	11.9	197	54.9	197
30-34	(*)	16	(*)	16	11.5	105	50.1	105	10.9	120	47.8	120
35-39	(*)	8	(*)	8	9.8	104	55.5	104	10.9	112	54.3	112
40-44	(*)	2	(*)	2	13.3	77	58.0	77	13.0	79	56.5	79
45-49	(*)	3	(*)	3	20.3	55	60.0	55	19.3	58	59.0	58
Total	**10.3**	**87**	**39.3**	**68**	**11.6**	**857**	**53.7**	**666**	**11.5**	**944**	**52.4**	**734**

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

Note: Figures in the total row are based on women age 15-49 and 20-49 for live births before age 15 and age 18, respectively.

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 42 per cent of women currently married or in union (Table RH.4). Modern methods of contraception are more commonly used (40 per cent) than traditional methods (two per cent) with injectable contraceptives being the most popular method which was used by at least one in four (27 per cent) married women in Homa Bay County. The next most popular method is the pill, accounting for 5 per cent of married women. Between 1 and 4 per cent of women reported use of one of the following methods of contraception; male condom, female sterilization, lactational amenorrhoea method (LAM), intrauterine devices (IUDs) or implants. Less than one per cent use periodic abstinence, withdrawal and the female condom.

Contraceptive prevalence among currently married women in the urban areas is 57 per cent and is 40 per cent in married women residing in rural areas.Contraceptive use ranges from 12 per cent in women with no children to 47 per cent in women with four or more children and from 32 to 51 per cent in women from households with the lowest wealth index and women rom households in the highest wealth index respectively.

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 Homa Bay County stands at 58 per cent. Sixty per cent of the married rural women are not using any method compared to 43 per cent of the married urban women. Similarly, 69 per cent of the women with one living child are not using any method. Women in households in the poorest wealth quintile and those where women have primary education register 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

	Not using any method	Female sterilization	Male sterilization	IUD	Injecta-bles	Implants	Pill	Male con-dom	Female con-dom	Dia-phragm/ Foam/ Jelly	Lactational amenor-rhoea method (LAM)	Periodic absti-nence	With-drawal	Other	Any modern method	Any tradi-tional method	Any method [1]	Number of women currently married or in union
Residence																		
Urban	42.9	0.0	0.0	4.0	34.6	5.0	9.6	1.9	0.0	0.0	2.0	0.0	0.0	0.0	55.1	2.0	57.1	50
Rural	59.6	2.8	0.0	0.7	26.0	1.8	4.0	3.1	0.1	0.0	0.8	0.4	0.2	0.4	38.6	1.7	40.4	568
Age																		
15-19	71.8	0.0	0.0	0.0	21.7	0.0	0.0	5.2	1.2	0.0	0.0	0.0	0.0	0.0	28.2	0.0	28.2	52
20-24	58.5	0.0	0.0	0.8	29.4	1.5	4.8	1.6	0.0	0.0	3.4	0.0	0.0	0.0	38.1	3.4	41.5	120
25-29	57.1	2.4	0.0	0.0	29.0	4.4	3.2	3.9	0.0	0.0	0.0	0.0	0.0	0.0	42.9	0.0	42.9	170
30-34	48.2	0.9	0.0	2.9	32.1	1.5	6.4	4.2	0.0	0.0	1.6	0.0	1.2	1.0	48.1	3.8	51.8	91
35-39	45.2	6.3	0.0	1.9	35.7	2.3	5.0	2.7	0.0	0.0	0.0	1.0	0.0	0.0	53.8	1.0	54.8	82
40-44	64.6	7.9	0.0	1.5	12.8	0.0	9.2	2.8	0.0	0.0	0.0	1.1	0.0	0.0	34.3	1.1	35.4	55
45-49	(81.5)	(3.6)	(0.0)	(0.0)	(7.4)	(0.0)	(3.6)	(0.0)	(0.0)	(0.0)	(0.0)	(1.6)	(0.0)	(2.4)	(14.5)	(4.0)	(18.5)	48
Number of living children																		
0	(87.9)	(2.2)	(0.0)	(0.0)	(4.1)	(0.0)	(0.0)	(5.8)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(12.1)	(0.0)	(12.1)	30
1	68.5	0.0	0.0	0.0	23.9	0.8	1.5	2.6	0.8	0.0	1.2	0.0	0.0	0.7	29.6	1.9	31.5	83
2	56.5	2.2	0.0	0.9	24.6	1.4	5.3	6.2	0.0	0.0	2.8	0.0	0.0	0.0	40.7	2.8	43.5	108
3	59.4	1.6	0.0	1.0	27.6	3.8	5.9	0.7	0.0	0.0	0.0	0.0	0.0	0.0	40.6	0.0	40.6	98
4+	52.8	3.9	0.0	1.3	30.2	2.2	5.0	2.5	0.0		0.5	0.7	0.4	0.5	45.1	2.1	47.2	299
Education																		
None	(62.1)	(4.0)	(0.0)	(0.0)	(20.8)	(1.7)	(6.9)	(1.9)	(0.0)	(0.0)	(0.0)	(0.0)	(2.7)	(0.0)	(35.3)	(2.7)	(37.9)	40
Primary	59.4	2.7	0.0	1.1	26.8	2.1	3.4	2.8	0.1	0.0	0.9	0.3	0.0	0.4	38.9	1.7	40.6	477
Secondary +	51.6	1.9	0.0	0.8	28.7	1.6	8.9	4.7	0.0	0.0	1.0	0.8	0.0	0.0	46.6	1.8	48.4	102
Wealth index quintile																		
Poorest	68.2	2.5	0.0	0.0	25.2	0.0	0.0	2.8	0.0	0.0	0.5	0.0	0.0	0.8	30.5	1.3	31.8	122
Second	62.6	3.6	0.0	0.0	26.5	3.8	0.5	1.9	0.0	0.0	0.6	0.5	0.0	0.0	36.3	1.1	37.4	127
Middle	59.9	2.1	0.0	1.2	24.6	1.9	5.6	3.1	0.0	0.0	1.5	0.0	0.0	0.0	38.6	1.5	40.1	135
Fourth	50.2	3.5	0.0	0.6	29.6	0.5	6.6	5.1	0.5	0.0	1.5	1.2	0.0	0.8	46.3	3.4	49.8	139
Richest	49.3	0.9	0.0	3.7	27.6	4.7	11.0	1.7	0.0	0.0	0.0	0.0	1.1	0.0	49.6	1.1	50.7	95
Total	**58.3**	**2.6**	**0.0**	**1.0**	**26.7**	**2.0**	**4.5**	**3.0**	**0.1**	**0.0**	**0.9**	**0.4**	**0.2**	**0.3**	**40.0**	**1.7**	**41.0**	**618**

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

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

• Blood pressure measurement

• Urine testing for bacteriuria and proteinuria

• Blood testing to detect syphilis and severe anaemia

• Weight/height measurement (optional)

The type of personnel providing antenatal care to women aged 15-49 years who gave birth in the two years preceding is presented in Table RH.6. Coverage of antenatal care (by a doctor, nurse, midwife, clinical officer or community nurse) in Homa Bay County is at 93 per cent of women receiving antenatal care at least once during the pregnancy, with almost 3 out of 5 (62 per cent) of them received care from a nurse or midwife per cent. About 2 per cent of women received antenatal care from traditional birth attendants while four per cent did not receive any antenatal care.

Table RH.6: Antenatal care coverage

Per cent distribution of women age 15-49 who gave birth in the two years preceding the survey by type of personnel providing antenatal care, Migori County, 2011

	Person providing antenatal care										Any skilled personnel [1]	Number of women who gave birth in the preceding two years
	Medical doctor	Nurse/ Midwife	Commu nity nurse	Clinical officer	Traditional birth attendant	Commu nity health worker	Relative/ Friend	Other	No anten atal care received	Total		
Residence												
Urban	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	24
Rural	10.3	62.0	8.1	12.4	1.9	0.2	0.5	0.5	4.1	100.0	92.8	293
Mother's age at birth												
Less than 20	8.1	67.3	6.7	11.0	2.0	0.7	0.0	0.0	4.1	100.0	93.2	82
20-34	9.9	61.1	8.4	12.9	2.3	0.0	1.2	0.3	3.8	100.0	92.4	211
35-49	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	23
Education												
None	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	15
Primary	8.9	62.3	7.3	13.9	2.1	0.2	0.7	0.6	3.9	100.0	92.5	244
Secondary +	11.2	63.6	6.2	12.0	2.6	0.0	1.7	0.0	2.6	100.0	93.1	57
Wealth index quintiles												
Poorest	8.6	67.9	5.1	10.7	2.0	0.0	0.0	1.3	4.3	100.0	92.4	78
Second	8.9	59.9	13.5	13.4	1.8	0.0	0.0	0.0	2.5	100.0	95.7	63
Middle	6.9	52.8	6.9	22.9	2.3	0.0	2.7	0.0	5.5	100.0	89.5	56
Fourth	10.5	64.0	6.2	11.9	1.6	0.9	0.0	0.9	4.1	100.0	92.5	65
Richest	14.9	63.7	6.2	7.9	2.8	0.0	2.0	0.0	2.5	100.0	92.8	54
Total	**9.8**	**62.1**	**7.5**	**13.2**	**2.1**	**0.2**	**0.8**	**0.5**	**3.8**	**100.0**	**92.6**	**316**

[1] MICS indicator 5.5a; MDG indicator 5.5
(*) Not shown, based on less than 25 unweighted cases.

Antenatal Care Visits

United Nations Children's Fund (UNICEF) and World Health Organization (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 during the two years preceding the survey, regardless of provider by selected characteristics.

Almost nine in ten mothers (87 per cent) received antenatal care more than once whilst more than half of mothers (53 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, Homa Bay County, 2011								
	Per cent distribution of women who had:							Number of women who had a live birth in the preceding two years
	No antenatal care visits	One visit	Two visits	Three visits	4 or more visits [1]	Missing/ DK	Total	
Residence								
Urban	(*)	(*)	(*)	(*)	(*)	(*)	(*)	24
Rural	4.1	8.6	11.1	23.0	51.8	1.4	100.0	293
Mother's age at birth								
Less than 20	4.1	14.5	8.9	27.6	44.2	0.7	100.0	82
20-34	3.8	5.2	11.6	21.7	56.6	1.1	100.0	211
35-49	(*)	(*)	(*)	(*)	(*)	(*)	(*)	23
Education								
None	(*)	(*)	(*)	(*)	(*)	(*)	(*)	15
Primary	3.9	8.8	11.3	24.7	49.7	1.6	100.0	244
Secondary +	2.6	3.5	11.7	24.8	57.5	0.0	100.0	57
Wealth index quintile								
Poorest	4.3	10.5	9.1	28.2	46.6	1.3	100.0	78
Second	2.5	11.1	14.6	23.6	48.1	0.0	100.0	63
Middle	5.5	4.9	9.9	21.5	54.9	3.3	100.0	56
Fourth	4.1	11.1	10.0	23.0	50.1	1.8	100.0	65
Richest	2.5	0.0	10.7	19.6	67.2	0.0	100.0	54
Total	**3.8**	**8.0**	**10.8**	**23.5**	**52.6**	**1.3**	**100.0**	**316**

[1] MICS indicator 5.5b; MDG indicator 5.5
(*) Not shown, based on less than 25 unweighted cases.

The types of services pregnant women received are shown in Table RH.8. Among those women who have given birth to a child during the two years preceding the survey, 59 per cent reported that a blood sample had been taken during antenatal care visits, 91 per cent reported that their blood pressure had been checked whilst urine samples were taken in 81 per cent of the cases. Slightly over half (56 per cent) of the women received all three services. That is, they had their blood pressure measured, urine sample taken, and blood sample taken during antenatal care visits. Over half (51 per cent) of women from the poorest households received all three services compared to almost seven out of 10 (68 per cent) of women from the richest households.

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, Homa Bay 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]	
Residence					
Urban	(*)	(*)	(*)	(*)	24
Rural	91.3	80.9	58.2	54.9	293
Mother's age at birth					
Less than 20	89.0	84.9	67.1	62.4	82
20-34	91.8	78.9	57.3	54.9	211
35-49	(*)	(*)	(*)	(*)	23
Education					
None	(*)	(*)	(*)	(*)	15
Primary	90.0	80.7	54.0	51.8	244
Secondary +	94.8	80.6	72.6	65.2	57
Wealth index quintile					
Poorest	89.5	84.0	52.1	50.8	78
Second	90.5	83.5	52.3	49.9	63
Middle	93.5	79.1	58.8	54.9	56
Fourth	89.6	71.9	62.9	56.9	65
Richest	92.8	88.2	69.8	68.0	54
Total	**91.0**	**81.3**	**58.6**	**55.5**	**316**

[1] MICS indicator 5.6

(*) Not shown, based on less than 25 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). Thirty five per cent of women delivered with the assistance of a nurse or midwife in the two years preceding the MICS survey. Doctors and clinical officers assisted with the delivery of seven per cent of births each. Traditional birth attendants assisted with the delivery of 33 per cent of all births. Nine per cent of births were assisted by a relative or friend while another five per cent of births had no attendant. The proportion of births assisted by skilled personnel increased from 26 per cent among women in the poorest households to 57 per cent among those in the richest households.

Table RH.9: Assistance during delivery

Percentage 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, Homa Bay County, 2011

	Person assisting at delivery									Total	Delivery assisted by any skilled attendant [1]	Per cent delivered by C-section [2]	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				
Residence													
Urban	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	24
Rural	7.3	33.3	1.2	7.7	31.8	2	9.4	1.7	5.6	100	41.8	7.1	293
Mother's age at birth													
Less than 20	6.5	37.1	2.8	12.1	38.8	1.8	0	0	0.9	100	46.5	6.6	82
20-34	6.9	36.8	0.6	5.7	30	2.4	11.2	1.9	4.6	100	44.2	8.1	211
35-49	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	23
Place of delivery													
Public sector health facility	13.2	67.4	2.9	16.4	0	0	0	0	0	100	83.6	15.2	120
Private sector health facility	(14.7)	(75.2)	0	(10.1)	0	0	0	0	0	(100)	(89.9)	(16.3)	30
Home	0.7	3.7	0	0	65.7	4.1	16.1	0.6	9.1	100	4.3	0	157
Other	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	7
Education													
None	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	15
Primary	6	29.3	1	6.2	37.1	2.3	10	1.6	6.4	100	36.3	6.5	244
Secondary +	6.6	49	1.7	12	21.8	1.7	6	0	1.2	100	57.3	10.3	57
Missing/DK	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	3.0
Wealth index quintiles													
Poorest	5	19.5	1.5	6.3	40.7	2	14.9	3.3	6.7	100	26	4.3	78
Second	5.5	35.8	1.1	6.6	30.6	2.5	5.4	1.3	11.3	100	42.3	3.3	63
Middle	8.3	33.6	0	11	29.4	1.6	14.5	0	1.7	100	41.8	6.3	56
Fourth	6.1	43	1	7.1	32.9	0	5.2	2.5	2.3	100	50.1	13.7	65
Richest	10	45.6	1.8	5.1	26.3	4.5	3.6	0	3	100	57.4	9.7	54
Total	**6.8**	**34.5**	**1.1**	**7.2**	**32.6**	**2**	**9.1**	**1.6**	**5.2**	**100**	**42.4**	**7.3**	**316**

[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-seven per cent of births were delivered in a health facility while 50 per cent of births occurred at home. More than a third (38 per cent) of deliveries occurred in public sector facilities whilst 10 per cent occurred in private sector facilities. The proportion of births delivered in health facilities was 40 per cent among women with primary education and 68 per cent among those with secondary education or higher. The proportion of births delivered in health facilities ranged from 30 per cent among women in the poorest households to 63 per cent among those in the richest households.

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, Homa Bay County, 2011								
	Place of delivery							Number of women who had a live birth in preceding two years
	Public sector health facility	Private sector health facility	Home	Other	Missing/ DK	Total	Delivered in health facility [1]	
Residence								
Urban	(*)	(*)	(*)	(*)	(*)	(*)	(*)	24
Rural	36.9	10.3	50.0	1.9	1.0	100.0	47.2	293
Mother's age at birth								
Less than 20	47.8	8.2	44.0	0.0	0.0	100.0	56.0	82
20-34	36.9	10.8	49.1	2.6	0.6	100.0	47.7	211
35-49	(*)	(*)	(*)	(*)	(*)	(*)	(*)	23
Number of antenatal care visits								
None	(*)	(*)	(*)	(*)	(*)	(*)	(*)	12
1-3 visits	36.4	8.6	53.5	1.5	0.0	100.0	45.0	134
4+ visits	40.7	11.2	45.3	2.8	0.0	100.0	52.0	166
Education								
None	(*)	(*)	(*)	(*)	(*)	(*)	(*)	15
Primary	32.5	7.5	56.4	2.7	0.9	100.0	40.0	244
Secondary +	56.3	12.0	30.5	0.0	1.2	100.0	68.3	57
Missing/DK	(*)	(*)	(*)	(*)	(*)	(*)	(*)	4
Wealth index quintiles								
Poorest	23.4	6.9	65.6	2.8	1.3	100.0	30.3	78
Second	26.5	17.6	54.6	1.3	0.0	100.0	44.1	63
Middle	45.1	6.6	45.3	3.0	0.0	100.0	51.7	56
Fourth	46.8	7.9	43.5	0.0	1.8	100.0	54.7	65
Richest	53.5	9.1	32.5	3.6	1.3	100.0	62.6	54
Total	**37.8**	**9.6**	**49.6**	**2.1**	**0.9**	**100.0**	**47.4**	**316**

[1] MICS indicator 5.8
(*) Not shown, based on less than 25 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 Homa Bay 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 characteristics.

Table CD.1: Early childhood education

Percentage of children age 36-59 months who are attending an organized early childhood education programme, Homa Bay County, 2011		Percentage of children age 36-59 months currently attending early childhood education [1]	Number of children age 36-59 months
Sex	Male	50.8	198
	Female	50.9	159
Residence	Urban	(*)	22
	Rural	51.0	335
Age of child	36-47 months	30.7	178
	48-59 months	71.1	178
Mother's education	None	(*)	24
	Primary	47.7	280
	Secondary +	59.7	51
	Missing/DK	(*)	3
Wealth index quintile	Poorest	41.5	91
	Second	41.4	78
	Middle	53.4	73
	Fourth	57.1	74
	Richest	(74.5)	40
Total		**50.9**	**356**

[1] MICS indicator 6.7
* Not shown, based on less than 25 unweighted cases.

About 51 per cent of children aged 36-59 months are attending pre-school (Table CD.1. Forty eight per cent of children born to mothers with primary education and 60 per cent of children born to mothers with secondary or higher education attends pre-school. The proportions of children currently attending early childhood education by gender are similar. About 71 per cent of children ages 36-47 months attend pre-school, while the figure drops to 31 per cent among children aged 48-59 months.

Findings on adult participation in childhood development are presented in Table CD.2. For 23 per cent of children under five, an adult household member engaged in more than four activities that promote learning and school readiness during the 3 days preceding the survey. The proportion of male and

female children where an adult household member engaged in four or more activities with them is 25 per cent and 22 per cent respectively. Adult household members were more engaged in four or more activities with older than younger children (30 per cent among 48-59 months old compared to 17 per cent among 36-47 months old). Father's involvement with children in one or more activities is 13 per cent. There are no major differences in the proportions of children with whom the father engaged in one or more activities by child's gender, age, mother's level of education and household wealth index.

Notably, 2 out of 5 (40 per cent) children live in a household without their natural fathers. There are no major differences in the proportion of children who live in a household without their fathers by child's gender and mother's level of education.

Table CD.2: Support for learning

	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		
Sex						
Male	24.5	13.8	2.0	0.3	39.4	198
Female	21.5	12.7	1.9	0.2	36.0	159
Residence						
Urban	(*)	(*)	(*)	(*)	(*)	22
Rural	21.8	13.0	1.9	0.2	37.9	335
Age						
36-47 months	16.8	11.6	1.7	0.2	34.9	178
48-59 months	29.5	15.1	2.2	0.3	40.9	178
Mother's education						
None	(*)	(*)	(*)	(*)	(*)	24
Primary	20.3	13.9	1.9	0.2	36.7	280
Secondary+	27.9	12.6	2.1	0.3	35.0	51
Father's education						
None	(*)	(*)	(*)	(*)	(*)	18
Primary	18.1	18.4	1.8	0.3	0.0	152
Secondary+	(17.1)	(17.7)	(1.9)	(0.3)	(0.0)	49
Father not in household	30.1	3.7	2.1	0.1	100.0	135
Missing/DK	(*)	(*)	(*)	(*)	(*)	3
Wealth index quintiles						
Poorest	23.2	12.9	1.9	0.2	42.1	91
Second	23.4	12.0	1.8	0.2	39.4	78
Middle	20.5	12.8	1.8	0.3	26.3	73
Fourth	17.0	16.7	2.0	0.3	40.0	74
Richest	(38.6)	(11.8)	(2.3)	(0.2)	(42.7)	40
Total	**23.1**	**13.3**	**1.9**	**0.2**	**37.9**	**356**

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, Homa Bay County, 2011

[1] MICS indicator 6.1

[2] MICS Indicator 6.2

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

( ) Based on 25-49 unweighted cases.

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 Homa Bay County, only 3 per cent of children aged 0-59 months live in households where at least 3 children's books are present (Table CD.3). The proportion of children with 10 or more books is less than 1 per cent. There are marginal differentials in the proportions of households reporting 3 or more children's books by child's age, gender, residence and mother's level of education. The proportion of households reporting 3 or more children's books in urban areas is 5 per cent while it is 2 per cent in rural areas. The proportion of households with 3 or more children's books by wealth quintile ranges from less than 1 per cent in the second wealth quintile to 5 per cent in the highest wealth quintile.

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, Homa Bay, 2011							
	Household has for the child:		Child plays with:				
	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	Two or more types of playthings [2]	Number of children under age 5
Sex							
Male	2.3	0.0	67.9	30.5	75.8	66.2	453
Female	2.9	0.2	62.5	30.9	76.1	63.6	415
Residence							
Urban	4.6	0.0	69.6	62.4	70.9	72.8	63
Rural	2.4	0.1	65.0	28.2	76.4	64.3	806
Age							
0-23 months	0.3	0.0	47.0	23.0	57.1	46.2	340
24-59 months	4.1	0.2	77.1	35.6	88.1	77.0	528
Mother's education							
None	4.6	0.0	76.0	64.0	86.9	85.8	53
Primary	2.0	0.1	64.9	24.6	75.5	62.9	669
Secondary+	4.5	0.0	63.2	46.7	74.3	66.9	147
Wealth index quintiles							
Poorest	4.6	0.0	76.0	64.0	86.9	85.8	53
Second	2.0	0.1	64.9	24.6	75.5	62.9	669
Middle	4.5	0.0	63.2	46.7	74.3	66.9	147
Fourth	4.6	0.0	76.0	64.0	86.9	85.8	53
Richest	2.0	0.1	64.9	24.6	75.5	62.9	669
Total	**2.6**	**0.1**	**65.3**	**30.7**	**76.0**	**64.9**	**868**

[1] MICS indicator 6.3
[2] MICS indicator 6.4

Table CD.3 also shows that 65 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).

About 31 per cent of children play with toys that come from a store while 65 per cent play with homemade toys. Majority of children (76 per cent) play with household objects or other objects found outside the home. The proportion of children who have 2 or more playthings is comparable across child's gender - 66 per cent among male children and 63 per cent among female children. The proportion of children who have 2 or more playthings is higher among children living urban (73 per cent) than those living in rural (64 per cent) areas. Similarly, the proportion of children who have 2 or more playthings is 77 per cent among children aged 24-59 months and 46 per cent among those aged 0-23 months.

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 28 per cent of children aged 0-59 months were left in the care of other children younger than 10 years of age, while 52 per cent were left alone during the week preceding the interview. Combining the two care indicators, findings show that 57 per cent of children were left with inadequate care during the week preceding the survey, either by being left alone or in the care of another child. No marked differences are observed by the sex of the child and area of residence; 53 per cent in urban and 58 per cent in rural areas. Inadequate care is61 per cent among children whose mothers have primary education only and 31 per cent among children whose mothers have secondary or higher education (49 per cent). Sixty four per cent of children aged 24-59 months and 47 per cent of children aged 0-23 months were left with inadequate care. Children left with inadequate care ranged from 37 per cent to 67 per cent in households in the highest wealth quintile and children in the middle wealth quintile respectively.

Table CD.4: Inadequate care

Percentage of children under age 5 left alone or left in the care of another child younger than 10 years of age for more than one hour at least once during the past week, Homa Bay County, 2011					
		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]	
Sex	Male	52.8	27.3	57.2	453
	Female	50.5	28.0	57.1	415
Residence	Urban	47.8	25.6	53.1	63
	Rural	52.0	27.8	57.5	806
Age	0-23 months	43.4	22.4	47.1	340
	24-59 months	57.0	31.0	63.7	528
Mother's education	None	29.7	10.4	31.4	53
	Primary	55.7	28.7	61.1	669
	Secondary+	41.3	28.8	48.5	147
Wealth index quintiles	Poorest	60.8	27.7	64.7	209
	Second	51.5	28.4	57.9	173
	Middle	58.4	35.5	67.2	180
	Fourth	45.9	28.1	52.4	173
	Richest	36.0	15.3	36.8	133
Total		**51.7**	**27.6**	**57.2**	**868**

[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 Homa Bay.

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 are presented in Table CD.5.

In Homa Bay County, 30 per cent of children aged 36-59 months are developmentally on track. ECDI is comparable by gender at 29 per cent among boys and 30 per cent among girls. ECDI is 43 per cent among 43 per cent among 48-59 months old and to 16 per cent among 36-47 months old. Higher ECDI scores are observed among children attending pre-school (45 per cent) compared to 14 per cent among those who are not attending preschool. The analysis of four domains of child development shows that 78 per cent of children are on track in the physical domain, 32 per cent on the social-emotional, 34 per cent on literacy-numeracy and 45 per cent on learning domains. In both literacy-numeracy and learning domains, higher scores are observed among older children, children attending preschool and those born to mothers with secondary or higher education. In both physical and social-emotional domains, higher scores are observed among older children and among those whose mothers have secondary or higher education.

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, Homa Bay 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		
Sex						
Male	32.2	80.7	29.9	44.8	29.0	198
Female	36.2	74.7	34.5	44.3	30.3	159
Residence						
Urban	(*)	(*)	(*)	(*)	(*)	22
Rural	33.0	78.0	31.9	43.6	28.2	335
Age						
36-47 months	18.0	71.0	26.6	41.8	15.9	178
48-59 months	50.1	85.0	37.3	47.4	43.4	178
Preschool attendance						
Attending preschool	54.8	83.6	32.8	53.3	44.8	181
Not attending preschool	12.5	72.2	31.1	35.6	13.8	175
Mother's education						
None	(*)	(*)	(*)	(*)	(*)	24
Primary	29.9	76.9	31.0	42.0	26.5	280
Secondary	42.5	79.6	39.6	47.2	32.6	51
Wealth index quintiles						
Poorest	28.6	71.6	38.4	38.8	27.7	91
Second	25.0	76.9	28.4	38.7	17.8	78
Middle	44.7	81.5	27.8	45.1	32.5	73
Fourth	29.3	81.4	34.8	43.8	29.4	74
Richest	(52.9)	(82.1)	(26.4)	(69.6)	(51.8)	40
Total	**34.0**	**78.0**	**31.9**	**44.6**	**29.6**	**356**

[1] MICS indicator 6.6

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

( ) Based on 25-49 unweighted cases.

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.

The per cent literate is presented in Table ED.1. Table ED.1 indicates that 74 per cent of women in Homa Bay County are literate. Literacy varies by age, education level and levels of household wealth index. Sixty eight per cent of young women aged 20 to 24 and 79 per cent of young women aged 15 to 19 years are literate. Also, 63 per cent of women and 98 per cent of women who have attained primary school and secondary school or higher education respectively are literate. Literacy rate ranges from 61 per cent in women from the lowest wealth quintile to 87 per cent in women from the highest wealth quintile.

Table ED.1: Literacy among young women

Percentage of women age 15-24 years who are literate, Homa Bay County, 2011			
	Percentage literate [1]	Percentage not known	Number of men age 15-24 years
Residence			
Urban	(71.8)	(0.0)	38
Rural	74.6	1.0	341
Education			
None	*	*	11
Primary	63.1	0.6	250
Secondary+	98.0	0.7	118
Age			
15-19	79.0	1.2	210
20-24	68.4	0.5	169
Wealth index quintile			
Poorest	60.8	2.9	83
Second	68.3	1.3	64
Middle	74.5	0.0	59
Fourth	79.4	0.0	89
Richest	86.6	0.0	84
Total	**74.3**	**0.9**	**379**

[1] MICS indicator 7.1; MDG indicator 2.3

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

( ) Based on 25-49 unweighted cases.

School Readiness

Attendance to pre-school education in an organised learning or child education programme is important for the readiness of children to school. Table ED.2 shows the proportion of children in the first grade of primary school who attended pre-school the previous year. Overall, 78 per cent of children who are currently attending the first grade of primary school were attending pre-school the previous year.

Table ED.2: School readiness

Percentage of children attending first grade of primary school who attended pre-school the previous year, Homa Bay County, 2011			
		Percentage of children attending first grade who attended preschool in previous year [1]	Number of children attending first grade of primary school
Sex	Male	75.2	76
	Female	80.6	75
Area	Urban	*	8
	Rural	77.3	143
Mother's education	None	*	9
	Primary	80.4	119
	Secondary+	*	19
	Mother not in household	*	2
Wealth index quintiles	Poorest	(90.3)	35
	Second	(73.2)	41
	Middle	(71.9)	36
	Fourth	*	22
	Richest	*	16
Total		**77.8**	**151**

[1] MICS indicator 7.2

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

( ) Based on 25-49 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

Among children who are of primary school entry age 6 in Homa Bay County, 11 per cent are attending the first grade of primary school (Table ED.3). Grade 1 enrolment among girls is 13 per cent and 10 per cent among boys.

Table ED.3: Primary school entry

Percentage of children of primary school entry age entering grade 1 (net intake rate), Homa Bay County, 2011			
		Percentage of children of primary school entry age entering grade 1 [1]	Number of children of primary school entry age
Sex	Male	10.1	94
	Female	12.6	91
Area	Rural	*	10
	Urban	12.0	175
Mother's education	None	*	19
	Primary	11.4	143
	Secondary +	*	24
Wealth index quintiles	Poorest	(9.8)	46
	Second	(16.7)	42
	Middle	(4.5)	49
	Fourth	(9.4)	32
	Richest	*	17
Total		**11.3**	**185**

[1] MICS indicator 7.3

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

( ) Based on 25-49 unweighted cases.

Table ED.4 provides the percentage of children of primary school age 6 to 13 years who are attending primary or secondary school[8]. The majority (75 per cent) of children of primary school age are attending school. However, 25 per cent of the children are out of school when they are expected to be participating in school. In urban areas, 82 per cent of children attend school while in rural areas attendance is at 74 per cent. Primary school attendance increases with increasing levels of household wealth index. For example, 70 per cent of the primary school age children from poorest wealth index households are currently attending primary school contrasted with 85 per cent for those from the richest wealth index households. The proportion of children attending primary school in households where the mother has no education compared to secondary and higher education are comparable.

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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), Homa Bay 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
Area	Urban	80.6	36	82.8	43	81.8	79
	Rural	72.5	606	76.0	617	74.3	1223
Age	6	13.0	94	12.6	91	12.8	185
	7	45.8	88	48.1	75	46.9	164
	8	69.7	84	72.0	89	70.9	173
	9	86.0	64	92.3	77	89.5	142
	10	91.8	89	95.9	85	93.8	174
	11	98.1	77	99.2	72	98.6	149
	12	99.2	75	98.8	88	99.0	163
	13	100.0	71	99.3	82	99.6	153
Mother's education	None	81.3	90	82.5	86	81.9	176
	Primary	69.7	479	74.6	485	72.2	963
	Secondary +	83.7	74	80.4	89	81.9	163
Wealth index quintiles	Poorest	72.4	149	68.1	157	70.3	306
	Second	63.5	142	78.7	141	71.1	283
	Middle	73.8	143	71.9	138	72.9	281
	Fourth	78.6	143	80.0	134	79.3	276
	Richest	80.4	66	88.6	92	85.2	157
Total		**72.9**	**642**	**76.4**	**660**	**74.7**	**1302**

[1] MICS indicator 7.4; MDG indicator 2.1

The secondary school net attendance ratio is presented in Table ED.5[9]. Twenty five per cent of the children are not attending school at all, is the fact that only 20 per cent of the children of secondary school age are attending secondary school. Of the remaining 80 per cent, majority are out of school or attending primary school i.e. (69 per cent) of the children of secondary school age are attending primary school when they should be attending secondary school. For children whose mothers had no education at all the proportion of children who attend secondary school is 18 per cent and is 36 per cent for those whose mothers had at least secondary education. About 35 per cent of children from the richest households attended secondary school, whereas the proportion of children attending secondary school from the poorest households is 10 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

	Male			Female			Total		
Percentage of children of secondary school age attending secondary school or higher (adjusted net attendance ratio) and percentage of children attending primary school, Homa Bay County, 2011									
	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
Residence									
Urban	29.9	62.4	13	19.8	55.8	21	23.7	58.4	34
Rural	20.8	72.2	251	18.1	67.8	221	19.5	70.1	472
Age at beginning of school year									
14	3.2	96.8	65	9.1	89.6	81	6.5	92.8	147
15	13.6	79.4	81	13.4	79.0	58	13.5	79.2	138
16	31.0	59.7	54	25.6	43.5	58	28.2	51.3	111
17	41.3	46.3	64	31.0	40.2	46	37.0	43.8	110
Mother's education									
None	12.3	84.6	33	31.5	64.3	14	18.2	78.4	48
Primary	14.9	82.9	133	13.2	78.6	138	14.0	80.7	271
Secondary+	49.1	44.0	19	27.0	73.0	27	36.1	61.0	46
Mother not in household	28.5	54.6	78	22.9	38.4	63	26.0	47.3	141
Missing/DK	(*)	(*)	2	(*)	(*)	2	(*)	(*)	4
Wealth index quintile									
Poorest	9.8	85.7	55	10.4	70.6	57	10.1	78.0	112
Second	23.7	69.7	66	13.8	78.0	42	19.9	72.9	107
Middle	13.2	75.6	50	17.1	73.1	47	15.1	74.4	97
Fourth	25.1	68.1	60	20.5	60.6	52	23.0	64.6	113
Richest	40.1	53.4	33	30.9	51.7	44	34.9	52.4	78
Total	**21.3**	**71.7**	**264**	**18.2**	**66.8**	**242**	**19.8**	**69.3**	**506**

[1] MICS indicator 7.5
(*) Not shown, based on less than 25 unweighted cases.

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. This number includes children who repeat grades and those who eventually move up to reach last grade. There is a high progression rate between the different grades - over 99 per cent in most grades. Girls and children living in the rural areas have slightly lower progression rate compared to boys and children living in the urban areas. There are no marked differentials between progressions at any grade by background characteristics like mother's education. The proportion of children who reach grade 8 of those who entered grade 1 is 89 per cent among boys and 91 per cent among girls.

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), Homa Bay County, 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]
Sex	Male	100.0	100.0	100.0	100.0	100.0	93.7	97.3	91.1
	Female	100.0	100.0	100.0	98.8	98.6	98.0	89.2	85.1
Area	Rural	100.0	100.0	100.0	100.0	100.0	100.0	91.0	91.0
	Urban	100.0	100.0	100.0	99.3	99.3	95.8	94.2	89.0
Mother's education	None	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Primary	100.0	100.0	100.0	100.0	100.0	98.7	94.5	93.3
	Secondary +	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Mother not in household	NA	NA	100.0	69.1	100.0	93.5	91.1	NA.
Wealth index quintiles	Poorest	100.0	100.0	100.0	97.3	100.0	95.4	95.5	88.7
	Second	100.0	100.0	100.0	100.0	97.3	91.3	94.1	83.6
	Middle	100.0	100.0	100.0	100.0	100.0	100.0	95.3	95.3
	Fourth	100.0	100.0	100.0	100.0	100.0	97.0	91.1	88.4
	Richest	100.0	100.0	100.0	100.0	100.0	95.5	94.8	90.5
Total		**100.0**	**100.0**	**100.0**	**99.3**	**99.4**	**96.1**	**93.9**	**89.0**

[1] MICS indicator 7.6; MDG indicator 2.2

The primary school completion rate and transition rate to secondary education are presented in Table ED.7. The primary completion rate is the ratio of the total number of students, regardless of age, entering the last grade of primary school for the first time, to the number of children of the primary graduation age at the beginning of the current (or most recent) school year. At the time of undertaking the survey, the primary school completion rate was 72 per cent.

The primary school completion rate is 94 per cent among boys and 69 per cent among girls. Also the primary school completion rate is 41 per cent for children born to mother with primary education levels and 76 per cent for mothers with at secondary education or higher.

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

Primary school completion rates and transition rate to secondary school, Homa Bay 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
Sex	Male	93.5	71	50.0	48
	Female	53.5	82	51.9	41
	Missing	.	0	.	0
Area	Rural	69.1	144	47.8	82
	Urban	122.7	8	86.0	7
Mother's education	None	36.5	28	60.7	7
	Primary	41.0	104	57.3	27
	Secondary +	75.8	20	71.1	5
	Mother not in household	.	0	42.8	23
Wealth index quintiles	Poorest	47.9	38	53.5	11
	Second	98.6	26	47.3	17
	Middle	70.0	29	47.0	19
	Fourth	78.4	36	52.6	22
	Richest	73.5	24	54.1	21
Total		**72.0**	**153**	**50.9**	**90**

[1] MICS indicator 7.7

[2] MICS indicator 7.8

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

( ) Based on 25-49 unweighted cases.

The ratio of girls to boys attending primary and secondary education is provided in Table ED.8. These ratios are better known as the Gender Parity Index (GPI). Notice that the ratios included here are obtained from net attendance ratios rather than gross attendance ratios. The last ratios provide an erroneous description of the GPI mainly because in most of the cases the majority of over-aged children attending primary education tend to be boys.

Table ED.8 shows that gender parity for primary school is 1.05. This indicates that there is no marked difference in attendance between girls and boys. GPI for primary school does not vary much across levels of mother's education. There are no major variation between primary school NAR for both boys and girls, across levels of household wealth quintiles.

The GPI indicator for secondary education is 0.86. For secondary school, boys and girls have an adjusted NAR of 21 per cent and 18 per cent respectively. The GPI for secondary school is 0.66 in urban areas and 0.87 in rural areas.

Table ED.8: Education gender parity

Ratio of adjusted net attendance ratios of girls to boys, in primary and secondary school, Homa Bay 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]
Area	Rural	76.0	72.5	1.05	17.7	20.5	0.86
	Urban	82.8	80.6	1.03	19.8	29.9	0.66
Mother's education	None	82.5	81.3	1.02	31.5	12.3	2.56
	Primary	74.6	69.7	1.07	12.6	14.2	0.88
	Secondary +	80.4	83.7	0.96	27.0	49.1	0.55
	Mother not in household	NA	NA	NA	22.9	28.5	0.80
Wealth index quintiles	Poorest	68.1	72.4	0.94	10.4	9.8	1.06
	Second	78.7	63.5	1.24	13.8	22.4	.62
	Middle	71.9	73.8	0.97	15.2	13.2	1.15
	Fourth	80.0	78.6	1.02	20.5	25.1	0.81
	Richest	88.6	80.4	1.10	30.9	40.1	0.77
Total		**76.4**	**72.9**	**1.05**	**17.9**	**20.9**	**0.85**

[1] MICS indicator 7.9; MDG indicator 3.1

[2] MICS indicator 7.10; MDG indicator 3.1

XI. Child Protection

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 are presented in Table CP.1. In Homa Bay, births of half (50 per cent) the population of children under five years are registered (Table CP.1). Although half the children under 5 were registered, only 7 per cent of children registered have birth certificates seen by a survey observer and a further 28 percent do not have a birth certificate.

Those from richer households are more likely to have a birth certificate than those from poorer households - 15 per cent compared to 4 per cent. However, the Homa Bay County birth registration and birth certificate possession estimates are much less than the national estimates given in the 2008/9 KDHS report. Nationally, 60 per cent of children under age 5 were registered and 24 per cent had a birth certificate. For those not registered, only 10 percent of the mothers/caretakers stated they have knowledge of how to register births though did not register their children's birth. Registration ranges from 41 per cent in children from second wealth quintile to 71 per cent for children in the richest wealth quintile. Sixty six per cent of children residing in urban areas and 49 per cent of those residing in the rural areas have been registered. Fifty three per cent of boys and 47 per cent of girls have been registered.

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, Homa Bay County, 2011							
		Children under age 5 whose birth is registered with civil authorities					Children under age 5 whose birth is not registered	
		Has birth certificate						
		Seen	Not seen	No birth certificate	Total registered [1]	Number of children	Per cent of children whose mother/ caretaker knows how to register birth	Number of children without birth registration
Sex	Male	7.3	14.6	30.9	52.9	453	11.0	213
	Female	7.0	14.6	25.1	46.7	415	9.7	221
Area	Urban	8.3	22.7	34.7	65.7	63	*	21
	Rural	7.1	14.0	27.6	48.7	806	9.9	413
Age	0-11	7.8	9.9	29.1	46.8	176	8.8	93
	12-23	4.8	17.0	32.6	54.4	165	10.8	75
	24-35	10.2	17.7	27.3	55.2	172	10.2	77
	36-47	6.1	12.3	28.9	47.3	178	10.3	94
	48-59	6.8	16.4	23.1	46.3	178	11.4	95
Mother's education	None	13.7	26.9	23.6	64.2	53	*	19
	Primary	5.9	13.5	26.5	45.8	669	10.1	363
	Secondary+	10.7	15.4	37.5	63.6	147	9.2	53
Wealth index quintiles	Poorest	4.0	13.9	26.0	43.9	209	6.1	117
	Second	5.1	11.3	24.7	41.1	173	4.9	102
	Middle	8.3	12.9	26.7	47.9	180	17.9	94
	Fourth	5.9	11.9	34.3	52.2	173	12.6	83
	Richest	14.9	25.7	29.9	70.6	133	(13.7)	39
Total		**7.1**	**14.6**	**28.2**	**49.9**	**868**	**10.3**	**435**

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

• 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 Homa Bay, County, 34 per cent of children aged 5-14 years are engaged in child labour. Thirty per cent and 57 per cent of children residing in urban and rural areas respectively are involved in child labour. Fifty three per cent of male children and 58 per cent of female children are involved in child labour. Children involved in child labour range from 34 per cent in children from households in the richest wealth quintile to 57 per cent in children from households in the second wealth quintile.Children of ages between 5-11 years are more than three times more likely to be involved in child labour activities compared to the older age group of 12-14 years (69 versus 21 percent). Thirty per cent and 57 per cent of children in urban and rural areas are involved in child labour. Over half (56 percent) of the children involved in child labour activities attend also school. Two per cent of younger children aged 5 to 11 years and 8 per cent of older children aged 12 to 14 years are involved in paid work outside the household. However 4 per cent and 5 per cent of the children aged 5 to 11 years and those aged 12 to 14 years are involved in unpaid work outside the home.

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, Homa Bay County, 2011

	Percentage of children age 5-11 involved in								Percentage of children age 12-14 involved in											
	Economic activity				Household chores less than 28 hours	Household chores for 28 hours or more	Child labour	Number of children age 5-11	Economic activity					Household chores less than 28 hours	Household chores for 28 hours or more	Child labour	Number of children age 12-14	Total child labour [1]	Number of children age 5-14 years
	Working outside household		Working for family business	Economic activity for at least one hour					Working outside household		Working for family business	Economic activity less than 14 hours	Economic activity for 14 hours or more						
	Paid work	Unpaid work							Paid work	Unpaid work									
Sex																			
Male	2.3	3.9	63.8	65.1	48.7	0.4	65.6	603	5.1	4.0	84.5	67.3	17.7	78.3	0.4	17.7	211	53.2	813
Female	2.4	4.1	71.8	72.5	63.9	1.2	72.5	569	9.8	5.8	92.3	68.5	23.7	87.7	0.9	23.7	252	57.6	821
Missing	*	*	*	*	*	*	*	1	*	*	*	*	*	*	*	*	0	*	1
Residence																			
Urban	0.0	1.5	40.7	40.7	43.7	0.0	40.7	72	(9.4)	(0.0)	(80.8)	(74.1)	(6.7)	(77.8)	(0.0)	(6.7)	32	30.2	105
Rural	2.5	4.1	69.5	70.6	57.0	0.9	70.8	1100	7.6	5.3	89.3	67.5	22.0	83.8	0.7	22.0	430	57.1	1530
School attendance																			
Yes	2.4	4.0	69.2	70.1	57.4	0.8	70.3	1126	7.7	5.0	88.7	68.0	20.9	83.4	0.7	20.9	460	56.0	1586
No	(0.0)	(3.3)	(32.6)	(36.0)	(25.6)	(0.0)	(36.0)	47	*	*	*	*	*	*	*	*	3	(36.1)	49
Mother's education																			
None	6.5	2.1	73.4	74.7	64.4	0.0	74.7	131	9.8	1.9	82.4	67.1	15.2	80.9	0.0	15.2	90	50.6	221
Primary	1.8	4.7	68.5	69.6	56.4	1.1	69.9	901	7.8	6.8	91.3	67.1	24.6	85.2	1.0	24.6	314	58.2	1214
Secondary+	1.7	1.2	57.4	57.4	46.8	0.0	57.4	141	3.6	0.0	84.8	74.2	10.6	77.5	0.0	10.6	59	43.6	200
Wealth index quintile																			
Poorest	5.0	2.8	70.9	71.2	56.8	1.0	71.2	265	16.4	3.5	91.7	69.7	22.9	86.3	0.0	22.9	110	57.1	375
Second	1.3	5.6	71.2	72.1	56.8	1.6	73.0	274	4.3	4.7	89.4	67.3	22.2	83.6	2.4	22.2	92	60.2	366
Middle	2.3	4.1	68.8	70.2	57.5	0.4	70.2	261	5.0	4.4	84.0	63.1	20.9	84.0	0.0	20.9	87	57.9	349
Fourth	1.4	3.4	70.5	72.1	58.9	0.6	72.1	244	6.2	7.9	93.3	67.9	25.4	81.6	0.9	25.4	98	58.7	342
Richest	1.0	3.5	46.3	46.9	45.1	0.0	46.9	128	4.1	4.4	83.0	72.2	10.8	80.5	0.0	10.8	75	33.5	202
Total	**2.3**	**4.0**	**67.7**	**68.7**	**56.1**	**0.8**	**69.0**	**1173**	**7.7**	**5.0**	**88.7**	**68.0**	**21.0**	**83.4**	**0.7**	**21.0**	**462**	**55.4**	**1635**

[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. More specifically, of the 97 per cent of the children 5-14 years of age attending school, 56 percent are also involved in child labour activities (student labourers). On the other hand, out of the 55 percent of child labourers, the majority of them were attending school (98 percent). The percentage of child labourers attending school does not vary with gender, area of residence, mother's education or wealth quintile. Thirty one per cent and 58 per cent of children residing in urban and in rural areas respectively who attend school are involved in child labour. Seventy per cent of children aged 5 to 11 years and 30 per cent of children aged 12 to 14 years are involved in child labour.

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, Homa Bay 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
Sex	Male	53.2	96.5	813	97.5	432	53.7	785
	Female	57.6	97.5	821	98.6	473	58.2	800
Residence	Urban	30.2	98.0	105	(100.0)	32	30.8	103
	Rural	57.1	96.9	1530	98.0	874	57.7	1483
Age	5-11 years	69.0	96.0	1173	97.9	809	70.3	1126
	12-14 years	21.0	99.4	462	99.0	97	20.9	460
Mother's education	None	50.6	98.6	221	99.2	112	50.9	218
	Primary	58.2	96.6	1214	97.8	707	58.9	1174
	Secondary +	43.6	97.3	200	98.1	87	43.9	194
Wealth index quintiles	Poorest	57.1	97.6	375	98.3	214	57.5	366
	Second	60.2	95.5	366	98.1	220	61.9	350
	Middle	57.9	96.5	349	96.9	202	58.1	337
	Fourth	58.7	98.2	342	98.6	201	59.0	336
	Richest	33.5	97.3	202	98.6	68	34.0	197
Total		**55.4**	**97.0**	**1635**	**98.0**	**906**	**56.0**	**1586**

[1] MICS indicator 8.3
[2] MICS indicator 8.4
( ) Based on 25-49 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 Homa Bay County MICS survey, mothers/caretakers of children age 2-14 years were asked a series of questions on the ways parents tend to 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, Homa Bay County, 2011								
	Percentage of children age 2-14 years who experienced:					Number of children age 2-14 years	Respondent believesthat 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				
Sex								
Male	5.4	79.9	89.0	29.4	92.8	1061	50.9	409
Female	5.3	72.1	86.3	26.8	93.0	1111	50.1	428
Residence								
Rural	5.3	75.5	87.9	27.6	92.9	2027	50.9	771
Urban	6.2	81.9	84.0	34.7	93.0	145	45.8	66
Age								
2-4 years	2.6	83.1	95.1	32.8	96.4	536	55.4	228
5-9 years	4.1	72.6	92.0	26.5	95.6	808	49.0	292
10-14 years	8.3	74.5	78.5	26.5	88.0	828	48.4	317
Education of household head								
None	12.2	68.9	78.1	19.8	85.7	313	51.2	139
Primary	3.7	78.3	90.5	29.6	94.9	1445	53.2	533
Secondary +	6.0	72.1	85.9	30.0	91.1	404	42.2	160
Missing/DK	(*)	(*)	(*)	(*)	(*)	10	(*)	4
Respondent's education								
None	15.0	64.3	69.9	20.9	80.1	187	57.4	89
Primary	3.4	78.1	90.6	29.4	95.2	1578	52.2	577
Secondary +	8.3	72.8	84.2	26.3	90.0	407	41.0	170
Wealth index quintile								
Poorest	6.2	72.0	86.4	24.8	91.9	499	53.9	183
Second	1.5	80.4	94.3	26.0	97.8	481	56.6	180
Middle	5.6	73.7	88.9	36.6	92.5	462	50.9	164
Fourth	7.4	77.0	81.0	26.0	90.3	450	46.9	183
Richest	6.7	77.1	86.9	26.9	91.0	279	41.5	126
Total	**5**	**76**	**88**	**28**	**93**	**2172**	**50.5**	**837**

[1] MICS indicator 8.5
(*) Not shown, based on less than 25 unweighted cases.
( ) Based on 25-49 unweighted cases.

In Homa Bay County, over 9 out of every 10 (93 percent) children age 2-14 years are subjected to at least one form of violent discipline method by their mothers/caretaker. Fifty one percent of mothers/caretakers in Homa Bay believe that children should be physically punished.

Children of either gender are subjected to violent discipline of any form equally. 92.8 per cent for male children and 93 per cent for female children. There is also no difference for any form of violent discipline by area of residence 92.9 per cent and 93 per cent for children residing in rural and in urban areas respectively. Up to 88 per cent of children aged 2 – 14 undergo through any form of physical punishment whereas 76 per cent undergo through psychological aggression.

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. Required to perform heavy amounts of domestic work, under pressure to demonstrate fertility, and 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.

Two of the indicators are to estimate the percentage of women married before 15 years of age and percentage married before 18 years of age. The percentage of women married at various ages is provided in Table CP.5. The percentage of women in a polygynous union is also provided in Table CP.5.

Table CP.5 shows that the proportion of women married before their 15th birthday in Homa Bay County is 16 percent of women between ages of 15-49 year old women and 19 percent of women 20-49 years. Over half (58 percent) the women ages 20-49 years married/in union are married before age 18. As high as 25 percent of adolescent girls' age 15-19 years are presently married/in union. None of the women age 15-49 in Homa Bay County are in polygynous marriage/unions.

Fourteen per cent and 19 per cent of women married before age 15 resides in urban and in rural areas respectively. Among women married before age 18, 35 per cent reside in urban areas and 51 per cent reside in rural areas. The proportion of women married before age 15 ranges from 11 per cent in women in the 20 to 24 years age group to 35 per cent among women in the 45 to 49 years age group. Percentage of women married before age 15 is 8 per cent for women who have high school or higher education, 17 per cent for women who have no education and 21 per cent among those with primary school education. Fewer women are married/in union before ages 15 or 18 is seen amongst those with secondary education or higher. The proportion of women married before age 15 ranges from 12 per cent in women residing in the households in the richest wealth quintile to 24 per cent in women residing in households in the lowest wealth quintile. The proportion of women married before age 18 ranges from 32 per cent in women residing in the households in the richest wealth quintile to 72 per cent in women residing in households in the lowest wealth quintile.

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

	Percentage married before age 15 [1]	Number of women age 15-49 years	Percentage married before age 15	Percentage married before age 18 [2]	Number of women age 20-49 years	Percentage of women 15-19 years currently married/in union [3]	Number of women age 15-19 years	Percentage of women age 15-49 years in polygynous marriage/union [4]	Number of women age 15-49 years currently married/in union
County									
HOMA BAY	15.5	944	18.6	58.3	734	25.0	210	27.0	618
Residence									
Urban	15.9	857	19.0	60.7	666	25.7	191	27.6	568
Rural	12.3	87	14.3	34.7	68	17.9	19	19.9	50
Age									
15-19	4.8	210	.	.	0	25.0	210	.0	52
20-24	11.1	169	11.1	43.5	169	.	0	12.5	120
25-29	17.3	197	17.3	59.7	197	.	0	29.5	170
30-34	12.9	120	12.9	56.3	120	.	0	31.8	91
35-39	25.0	112	25.0	63.3	112	.	0	28.7	82
40-44	25.5	79	25.5	71.6	79	.	0	49.0	55
45-49	34.9	58	34.9	73.7	58	.	0	47.2	48
Education									
None	16.5	57	17.0	30.6	55	42.5	2	29.6	40
Primary	18.3	684	21.4	67.6	542	31.3	142	28.3	477
Secondary +	5.9	203	8.0	32.9	137	10.9	66	20.0	102
Wealth index quintile									
Poorest	19.5	199	23.9	71.9	149	24.1	50	29.4	122
Second	20.4	179	22.8	72.3	149	25.3	30	33.0	127
Middle	15.7	183	17.8	57.1	151	29.6	33	26.2	135
Fourth	12.5	212	15.7	54.4	159	25.8	53	23.7	139
Richest	9.4	172	11.9	32.2	127	21.4	45	22.1	95
Total	**15.5**	**944**	**18.6**	**58.3**	**734**	**25.0**	**210**	**27.0**	**618**

[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 married before age 15 and 18 by different age groups allow us to see the trends in early marriage over time.In Homa Bay County, 17 per cent of women are married before the age of 15 and this proportion increases by three fold (57 per cent) for those for those married before the age of 18.

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.

Overall, the biggest proportion (46 per cent) of women population age 15-19 years is currently married/in union with a husband/partner who is 0-4 years older. In the older age group of women age 20-24 years, over 2 in 5 (43 percent) have husbands/partners who are 5-9 years older than them. Twelve per cent of women aged 15 to 49 years is married to/ in union with a husband/partner who is ten years or older than them. Of the women 20-24 years, almost 1 out of 5 (16 percent) are married to/in union with a husband/ partner ten or more years older than them. Only 2 percent of women aged 20-24 years had partners/ husbands who were younger than them.

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			
		Percentage of women married before age 15	Number of women age 15-49	Percentage of women married before age 18	Number of women age 20-49	Percentage of women married before age 15	Number of women age 15-49	Percentage of women married before age 18	Number of women age 20-49	Percentage of women married before age 15	Number of women age 15-49	Percentage of women married before age 18	Number of women age 20-49
Age	15-19	10.4	150	NA	0	2.2	52	NA	0	8.3	202	NA	0
	20-24	17.8	142	57.1	142	(7.8)	42	(29.0)	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	(22.0)	34	14.8	129	46.7	129
	35-39	26.3	92	62.0	92	*	15	*	15	24.0	107	61.5	107
	40-44	17.1	54	55.5	54	*	11	*	11	21.5	65	58.6	65
	45-49	28.4	60	70.2	60	*	10	*	10	34.8	71	72.5	71
Total		18.5	761	59.4	611	11.2	202	45.5	150	17.0	963	56.6	761

Figures in the total row are based on women age 15-49 and 20-49 for marriage before age 15 and age 18, respectively
* Not shown, based on less than 25 unweighted cases.
( ) Based on 25-49 unweighted cases.

Table CP.7: Spousal age difference

Percent distribution of women currently married/in union age 15-19 and 20-24 years according to the age difference with their husband or partner, Homa Bay County, 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:						
		Younger	0-4 years older	5-9 years older	10+ years older [1]	Husband/ partner's age unknown	Total	Number of women age 15-19 currently married/in union	Younger	0-4 years older	5-9 years older	10+ years older [2]	Husband / partner's age un-known	Total	Number of women age 20-24 years currently married/in union
Area	Rural	*	*	*	*	*	*	3	*	*	*	*	*	*	13
	Urban	(1.4)	(44.7)	(29.8)	(11.3)	(12.8)	(100.0)	49	1.7	36.5	41.0	16.8	4.0	100.0	107
Age	15-19	(1.3)	(45.5)	(29.2)	(12.0)	(12.0)	(100.0)	52	-	-	-	-	-	-	0
	20-24	-	-	-	-	-	-	0	2.4	34.2	42.7	15.6	5.1	100.0	120
Education	None	*	*	*	*	*	*	*	*	*	*	*	*	*	3
	Primary	(1.5)	(47.4)	(28.7)	(8.2)	(14.1)	(100.0)	44	3.2	33.4	37.4	19.2	6.7	100.0	91
	Secondary +	*	*	*	*	*	*	*	(0.0)	(32.5)	(62.5)	(5.0)	(0.0)	(100.0)	26
Wealth index quintiles	Poorest	*	*	*	*	*	*	12	(3.9)	(34.7)	(34.6)	(26.8)	(0.0)	(100.0)	25
	Second	*	*	*	*	*	*	8	(3.2)	(38.8)	(38.6)	(14.0)	(5.5)	(100.0)	27
	Middle	*	*	*	*	*	*	10	*	*	*	*	*	*	21
	Fourth	*	*	*	*	*	*	14	(0.0)	(40.7)	(37.2)	(17.0)	(5.1)	(100.0)	25
	Richest	*	*	*	*	*	*	10	*	*	*	*	*	*	21
Total		1.3	45.5	29.2	12.0	12.0	100.0	52	2.4	34.2	42.7	15.6	5.1	100.0	120

[1] MICS indicator 8.10a
[2] MICS indicator 8.10b
* Not shown, based on less than 25 unweighted cases.
() Based on 25-49 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. The procedure is generally carried out on girls between the ages of 4 and 14. 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. Female genital mutilation is widely practiced in many Kenyan communities. According to the 2008/9 KDHS report, up to 27 percent of women in Kenya are circumcised.

Table CP.8 presents the prevalence of FGM/C among women and the type and extent of the procedure. Overall, the proportion of women age 15-49 years who have undergone FGM/C in Homa Bay County is relatively low - 2 percent have some form of FGM/C. There are no variations in the proportion of women who have undergone FGM/C by area of residence, age, level of education or wealth index.

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

Percent distribution of women age 15-49 years by FGM/C status, Homa Bay County, 2011								
		Per cent distribution of women age 15-49 years:						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	Total	Percentage who had any form of FGM/C [1]
Residence	Urban	98.4	0.0	0.0	0.0	1.6	100.0	1.6	87
	Rural	98.1	0.7	0.3	0.4	0.5	100.0	1.9	857
Age	15-19	98.9	0.0	0.0	0.8	0.3	100.0	1.1	210
	20-24	96.7	1.8	0.9	0.0	0.6	100.0	3.3	169
	25-29	98.7	0.5	0.5	0.0	0.4	100.0	1.3	197
	30-34	98.9	0.6	0.0	0.0	0.6	100.0	1.1	120
	35-39	97.9	0.0	0.0	1.4	0.8	100.0	2.1	112
	40-44	99.0	1.0	0.0	0.0	0.0	100.0	1.0	79
	45-49	96.0	1.2	0.0	0.0	2.9	100.0	4.0	58
Education	None	95.9	2.9	0.0	0.0	1.3	100.0	4.1	57
	Primary	98.4	0.6	0.3	0.4	0.3	100.0	1.6	684
	Secondary+	98.1	0.0	0.3	0.3	1.3	100.0	1.9	203
Wealth index quintiles	Poorest	99.0	0.0	1.0	0.0	0.0	100.0	1.0	199
	Second	94.8	2.5	0.3	0.9	1.4	100.0	5.2	179
	Middle	98.3	0.0	0.0	0.8	0.9	100.0	1.7	183
	Fourth	99.7	0.3	0.0	0.0	0.0	100.0	0.3	212
	Richest	98.6	0.6	0.0	0.0	0.8	100.0	1.4	172
Total		**98.2**	**0.6**	**0.3**	**0.3**	**0.6**	**100.0**	**1.8**	**944**

[1] MICS indicator 8.12

Approval of Female Genital Mutilation/Cutting

Table CP.10 presents the woman's attitudes towards FGM/C. Sixty three percent of the women age 15-49 years have heard of FGM/C. Most of these are women who reside in households in the richest quintile (67 percent) or those who have no education (73 percent). Regarding opinion as to whether the practice should be continued or discontinued, majority of the women believe that the practise should be discontinued (58 percent). On the other hand of every 5 women in Homa Bay County, 1 woman wants the FGM/C practise to continue (21 percent). Majority of those who want FGM/C practise discontinued have not experienced FGM/C (58 percent).

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 percent distribution of women according to attitudes towards whether the practice of FGM/C should be continued, Homa Bay 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	Total	
Residence	Urban	61.9	87	26.6	53.5	11.0	8.9	100.0	54
	Rural	63.2	857	20.0	58.3	12.9	8.8	100.0	541
Age	15-19	56.7	210	26.6	65.2	3.1	5.1	100.0	119
	20-24	62.3	169	21.9	57.6	16.4	4.1	100.0	106
	25-29	70.5	197	21.3	55.3	16.4	7.1	100.0	139
	30-34	63.1	120	19.1	59.2	12.1	9.5	100.0	76
	35-39	59.6	112	16.8	57.4	12.7	13.1	100.0	66
	40-44	69.2	79	17.2	55.2	13.8	13.8	100.0	55
	45-49	61.2	58	(10.0)	(46.9)	(18.9)	(24.2)	(100.0)	35
Education	None	72.6	57	(10.6)	(62.3)	(11.2)	(15.9)	(100.0)	41
	Primary	60.6	684	22.9	54.6	12.8	9.7	100.0	414
	Secondary +	68.8	203	16.8	66.3	12.9	4.1	100.0	140
FGM/C experience	No FGM/C	62.4	927	19.7	58.3	13.1	8.9	100.0	578
	Had FGM/C	*	17	*	*	*	*	*	17
Wealth index quintiles	Poorest	57.2	199	23.1	55.0	13.4	8.6	100.0	114
	Second	61.0	179	23.4	55.3	12.2	9.1	100.0	109
	Middle	62.8	183	17.3	62.5	13.4	6.7	100.0	115
	Fourth	67.1	212	21.6	58.4	9.3	10.7	100.0	142
	Richest	67.4	172	17.6	58.1	15.9	8.4	100.0	116
Total		**63.1**	**944**	**20.6**	**57.9**	**12.7**	**8.8**	**100.0**	**595**

[1] MICS indicator 8.11
* Not shown, based on less than 25 unweighted cases.
( ) Based on 25-49 unweighted cases.

Attitudes toward Domestic Violence

whether husbands are justified to hit or beat their wives/partners for a variety of scenarios. These questions were asked to have an indication of cultural beliefs that tend to be associated with the prevalence of violence against women by their husbands/partners. The main assumption here is that women that agree with the statements indicating that husbands/partners are justified to beat their wives/partners under the situations described in reality tend to be abused by their own husbands/partners. The responses to these questions can be found 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, Homa Bay 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]	
Area	Urban	28.9	55.8	46.9	33.5	14.0	68.1	87
	Rural	37.6	54.3	48.2	34.7	19.0	70.4	857
Age	15-19	37.4	53.1	45.5	26.1	16.1	65.7	210
	20-24	27.4	53.6	45.0	30.3	14.1	68.7	169
	25-29	40.5	54.3	47.8	37.3	20.1	72.4	197
	30-34	36.9	58.0	47.9	34.3	17.2	68.1	120
	35-39	40.5	54.2	54.9	46.0	26.0	76.6	112
	40-44	42.2	50.5	57.5	42.0	21.6	73.4	79
	45-49	35.3	61.1	42.6	37.4	18.7	70.1	58
Marital/ Union status	Currently married/ in union	37.7	57.6	50.7	38.7	18.9	74.4	618
	Formerly married/in union	44.8	55.9	51.3	35.2	22.6	70.1	120
	Never married/in union	29.7	44.1	38.5	21.9	15.0	57.3	206
Education	None	20.1	42.1	22.8	15.0	11.5	51.5	57
	Primary	40.7	56.8	52.2	39.7	20.5	73.8	684
	Secondary +	28.4	50.2	41.6	22.8	13.8	63.0	203
Wealth index quintiles	Poorest	41.6	58.7	51.5	41.6	24.0	72.0	199
	Second	44.9	55.7	53.3	36.2	21.2	71.5	179
	Middle	40.4	56.0	50.0	37.2	19.0	75.8	183
	Fourth	32.6	52.2	47.7	32.7	14.6	70.1	212
	Richest	24.3	49.5	37.3	24.2	13.6	60.6	172
Total		**36.8**	**54.5**	**48.1**	**34.6**	**18.5**	**70.1**	**944**

[1] MICS indicator 8.14

A large proportion (70 percent) of women aged 15-49 years in Homa Bay County responded that their husband/partner has the 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 the wife beating is 'if she neglects the children' (55 percent). Other reasons given by women were 'if she argues with him' (48 percent), 'if she goes out without telling him' (37 percent), or 'if she refuses sex with him' (34 percent).

Disparities by marital status exist. Women who are currently married/in union are most likely (74 percent) to justify domestic violence for any of the reasons given. Attitudes towards domestic violence do not vary between rural and urban areas (70 percent and 68 percent respectively). Women aged 35-39 years are most likely to justify domestic violence compared to all other age groups. Across the wealth index, the proportion of women indicating that they would justify wife beating for any of the reasons mentioned ranges from 61 per cent among those residing in households from the richest wealth quintile to 76 per cent in women residing in households in the middle wealth quintile.

XII. HIV/AIDS, Sexual Behaviour, and Orphan

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 per cent of young women who have comprehensive and correct knowledge of HIV prevention and transmission. In Homa Bay 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.

The percentage of women aged 15 to 49 with comprehensive knowledge of HIV is 48 per cent. Comprehensive knowledge of HIV is 47 per cent in rural and 53 per cent in urban dwelling women population. Comprehensive knowledge of HIV ranges from 58 per cent in women residing in households in the second wealth quintile to 74 per cent among women residing in the highest wealth quintile.

HIV/AIDS, Sexual Behaviour, and Orphan

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 | Percentage with comprehensive knowledge [1] | 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			
Area	Rural	99.0	81.1	81.6	81.0	71.3	64.5	89.9	75.1	92.5	90.1	64.4	47.1	857
	Urban	99.2	78.3	87.1	81.4	71.4	64.8	90.3	82.2	94.1	93.8	72.8	53.4	87
Age	15-24	99.1	79.2	79.9	79.6	68.1	61.7	88.6	83.4	93.1	92.2	69.4	49.4	379
	25-29	99.2	83.8	87.0	86.3	78.1	71.1	90.0	74.0	91.8	91.4	64.9	49.9	197
	30-39	98.7	82.3	83.8	81.4	72.8	66.5	90.6	70.0	92.6	89.7	61.0	46.9	232
	40-49	98.9	78.8	78.2	77.0	67.9	59.9	92.3	66.6	92.9	85.3	60.8	40.9	137
Marital status	Ever married/in union	98.8	82.3	83.6	81.4	73.4	66.4	90.6	72.0	92.4	89.6	62.9	47.4	738
	Never married/in union	99.5	75.8	76.7	79.7	63.7	58.1	87.6	89.3	93.6	93.3	73.2	48.7	206
Education	None	98.9	88.2	81.7	87.3	78.8	73.6	97.1	90.6	94.7	92.3	88.8	71.6	57
	Primary	98.8	81.4	81.9	79.7	71.9	64.9	88.7	71.0	91.9	89.3	59.8	44.3	684
	Secondary +	99.6	77.0	83.0	83.7	67.0	61.1	92.1	87.7	94.8	93.5	76.7	52.2	203
Wealth index quintiles	Poorest	99.1	81.5	79.6	76.3	71.7	61.6	90.9	75.9	89.9	86.9	65.3	47.1	199
	Second	98.2	81.6	78.5	79.2	70.4	65.6	88.7	68.9	93.5	84.6	57.6	43.0	179
	Middle	99.2	83.5	85.8	86.8	74.6	69.5	93.6	70.1	93.5	91.9	62.3	47.7	183
	Fourth	98.8	76.3	82.8	81.8	68.1	62.7	88.5	78.0	92.8	93.0	67.0	47.0	212
	Richest	99.6	82.1	83.9	81.4	72.2	64.0	88.0	85.9	94.1	95.6	73.6	54.1	172
Total		99.0	80.9	82.1	81.0	71.3	64.6	89.9	75.8	92.7	90.4	65.2	47.7	944

[1] MICS indicator 9.1

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

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

		Percentage who have heard of AIDS	Percentage who know transmission can be prevented by:					Percentage who know that a healthy looking person can have the AIDS virus	Percentage who know that HIV cannot be transmitted by:			Percentage who reject the two most common misconceptions and know that a healthy looking person can have the AIDS virus	Percentage with comprehensive knowledge [1]	Number of women age 15-24
			Having only one faithful uninfected sex partner	Using a condom every time	By abstaining	Percentage of women who know both ways	Percentage of women who know all three ways		Mosquito bites	Supernatural means	Sharing food with someone with AIDS			
Area	Urban	(100.0)	(78.4)	(79.4)	(79.0)	(65.1)	(26.0)	(92.2)	(81.7)	(93.0)	(91.6)	(70.2)	(45.5)	38
	Rural	99.0	79.2	80.0	79.7	68.4	20.2	88.2	83.6	93.1	92.2	69.3	49.9	341
Age	15-19	99.1	73.6	76.5	77.5	61.5	22.5	86.9	87.1	92.7	93.1	72.4	46.3	210
	20-24	99.0	86.1	84.2	82.3	76.2	18.6	90.6	78.9	93.5	91.0	65.6	53.3	169
Marital status	Ever married/in union	98.6	84.0	84.0	80.0	74.1	18.2	88.8	77.6	92.0	91.2	65.1	50.8	182
	Never married/in union	99.5	74.7	76.2	79.2	62.5	23.2	88.4	88.8	94.1	93.0	73.4	48.2	197
Education	None	*	*	*	*	*	*	*	*	*	*	*	*	11
	Primary	98.6	79.9	79.4	78.7	69.6	17.0	86.4	79.4	91.3	90.1	63.1	46.9	250
	Secondary +	100.0	76.4	79.8	81.2	62.5	29.5	92.2	91.0	96.8	96.4	80.5	50.7	118
Wealth index quintiles	Poorest	100.0	80.4	79.0	80.3	68.5	23.7	88.1	86.4	90.8	90.6	67.9	48.9	83
	Second	98.5	77.5	77.2	76.6	67.2	13.1	93.9	75.0	94.0	87.8	64.6	46.9	64
	Middle	100.0	83.4	82.4	85.2	71.2	19.5	93.2	85.6	100.0	93.7	73.5	54.0	59
	Fourth	97.2	75.7	80.7	79.6	66.2	18.4	82.6	80.4	92.2	91.5	66.1	47.5	89
	Richest	100.0	79.8	80.5	77.4	68.2	27.1	88.2	88.6	90.6	96.7	75.1	50.8	84
Total		99.1	79.2	79.9	79.6	68.1	20.8	88.6	83.4	93.1	92.2	69.4	49.4	379

[1] MICS indicator 9.2; MDG indicator 6.3

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

( ) Based on 25-49 unweighted cases.

The results for women age 15-24 are separately presented in Table HA.2. Comprehensive knowledge of HIV among young women aged 15 to 24 years is 49 per cent. Comprehensive knowledge of HIV among this age group is 47 per cent and 51 per cent in women with primary school education and in women with secondary education or higher respectively. One out of five (21 per cent) young women knows of the three ways of HIV prevention. Seventy-nine per cent of young women know of having only one faithful uninfected sex partner, 80 per cent know of using a condom every time, and 80 per cent know of abstaining from sex as main ways of preventing HIV transmission. The proportion of young women who know all three ways is 23 per cent in the 15 to 19 year age group and 19 per cent in the 20 to 24 year age group. Knowledge of all the three ways of HIV prevention is 17 per cent in young women with primary school education and 30 per cent in young women with secondary education or higher.

More than a third (68 per cent) of women aged 15-24 years know of the two main ways of HIV prevention. Seventy four per cent of women who have previously been married or in union and 63 per cent of women who have never been married or in union know the two main ways of HIV prevention. Knowledge of two main ways of HIV prevention is comparable across levels of the household wealth index (69 per cent among women from the poorest households and 68 per cent among those from the richest).

Table HA.1 and HA.2 also presents the findings for women who can correctly identify misconceptions concerning HIV. The indicator is based on the two most common and relevant misconceptions in Kenya i.e. that HIV can be transmitted by mosquito bites and supernatural means. The table also provides information on whether women know that HIV cannot be transmitted by 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, 65 per cent reject the two most common misconceptions and know that a healthy-looking person can be infected. Seventy-six (76) per cent of women know that HIV cannot be transmitted by mosquito bites, 90 per cent of women know that HIV cannot be transmitted by sharing food with someone with AIDS, and 90 per cent of women know that a healthy-looking person can be infected.

Overall, women in 73 per cent urban areas reject the two most common misconceptions and know that a healthy looking person can have the AIDS virus whereas 64 per cent of women residing in rural areas reject the same misconception. The proportion of women who reject the two most common misconceptions and knowledge that a healthy looking person can have the AIDS virus ranges from 69 per cent in the 15 to 24 years age group to 61 per cent in the 40 to 49 year age group.

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. Amongst women age 15-49 years (Table HA.1), comprehensive knowledge of HIV prevention methods and transmission is still fairly low in Homa Bay County (48 per cent). Comprehensive knowledge is higher in urban areas (53 per cent) compared to rural areas (47 per cent).
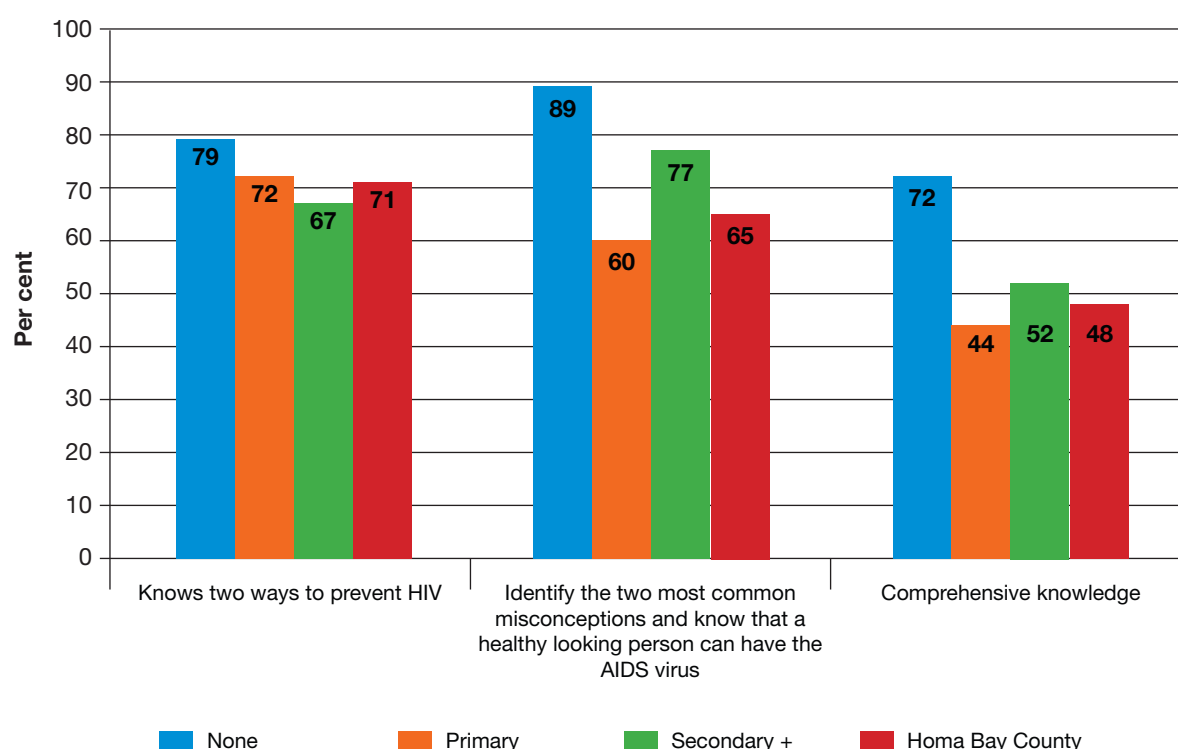
There are no major variations in the proportion of women with comprehensive knowledge across marital status. The levels are comparable across the first four wealth quintiles. Among younger women aged 15-24 years (Table HA.2), comprehensive knowledge is comparable across socioeconomic and other background characteristics.

Knowledge of mother-to-child transmission of HIV is also an important first step for women to seek HIV testing when they are pregnant to avoid infection in the baby. Women should know that HIV can be transmitted during pregnancy, 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, 94 per cent of women know that HIV can be transmitted from mother to child. The percentage of women who know all three ways of mother-to-child transmission is 50 per cent, while 5 per cent of women do not know of any specific way of mother-to-child HIV transmission.

Knowledge of the three ways of mother-to-child transmission is 49 per cent among women residing in rural areas and 60 per cent among women residing in urban areas. 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, household wealth index and status of marriage/union.

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, Homa Bay 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]		
Area	Urban	97.1	63.9	92.8	90.4	60.3	2.0	87
	Rural	94.0	58.2	87.9	85.1	49.3	5.0	857
Age group	15-24	92.8	57.9	85.1	84.2	49.1	6.3	379
	25+	95.3	59.2	90.6	86.5	51.1	3.6	565
Age group	15-19	89.1	57.4	80.1	79.9	47.6	10.0	210
	20-24	97.3	58.5	91.1	89.5	50.8	1.7	169
	25-29	95.6	57.2	90.4	88.1	48.4	3.6	197
	30-39	95.2	63.5	91.1	86.1	56.0	3.4	232
	40-49	95.0	54.8	89.9	85.0	46.8	3.9	137
Marital status	Ever married/in union	95.4	60.2	90.2	86.3	51.2	3.4	738
	Never married/in union	90.2	53.4	81.9	83.2	47.0	9.3	206
Education	None	93.2	50.3	88.3	87.8	45.4	5.7	57
	Primary	94.5	60.0	88.6	84.8	51.5	4.2	684
	Secondary +	93.7	56.6	87.6	87.6	47.7	5.9	203
Wealth index quintiles	Poorest	93.6	58.6	89.0	84.9	49.9	5.5	199
	Second	92.3	57.1	85.9	82.0	49.1	5.9	179
	Middle	96.1	62.5	88.0	89.5	52.2	3.1	183
	Fourth	93.4	58.2	88.2	85.9	50.6	5.4	212
	Richest	96.2	56.9	90.9	85.6	49.5	3.4	172
Total		**94.3**	**58.7**	**88.4**	**85.6**	**50.3**	**4.7**	**944**

[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 Homa Bay 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 HIV status of a family member a secret' (53 per cent).

Seventeen per cent of women who have ever married or been in union and their 13 per cent of never married or union counterparts (13 per cent)express accepting attitudes on all four indicators. Women from urban and rural areas express similar proportions of accepting attitudes on all four indicators (16 per cent). Similarly, the proportion of women with accepting attitudes on all four indicators is generally comparable across levels of women's education and household wealth index.

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

		Per cent of women who:	
\multicolumn{2}{|l|}{**Percentage of women age 15-49 years who have heard of AIDS who express an accepting attitude towards people living with HIV/AIDS, Homa Bay County, 2011**}	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]	Number of women who have heard of AIDS
Area	Urban	95.3	85.9	86.8	25.0	100.0	16.2	86
	Rural	92.7	78.5	82.3	26.0	99.1	16.3	848
Age	15-24	90.4	81.6	82.7	21.8	98.8	12.3	375
	15-19	87.3	78.6	82.7	22.8	98.4	11.2	208
	20-24	94.3	85.3	82.8	20.5	99.2	13.7	168
	25-29	94.7	76.2	84.3	26.0	99.4	18.7	195
	30-39	94.4	79.2	82.7	30.2	99.6	19.6	229
	40-49	94.8	77.0	80.6	30.0	99.3	18.3	135
Marital status	Ever married/in union	94.0	78.1	81.8	26.6	99.2	17.3	730
	Never married/ in union	89.3	83.3	86.2	23.4	98.9	12.6	205
Education	None	91.6	80.7	86.8	31.2	98.2	18.2	56
	Primary	92.6	77.3	80.0	25.1	99.2	15.2	675
	Secondary +	94.5	85.4	90.7	27.2	99.4	19.4	203
Wealth index quintiles	Poorest	92.3	70.3	77.4	30.7	99.4	12.9	197
	Second	91.1	78.4	82.3	25.2	98.2	18.2	175
	Middle	93.9	81.3	82.2	25.6	100.0	16.5	182
	Fourth	94.6	83.4	84.8	23.2	98.4	17.3	209
	Richest	92.4	83.0	87.5	24.7	100.0	16.7	171
Total		**92.9**	**79.2**	**82.7**	**25.9**	**99.2**	**16.3**	**934**

[1] MICS indicator 9.4

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 Homa Bay County, 94 per cent of women know where to be tested but only 53 per cent have actually been tested.

There are no major differences (2 per cent) in the proportion of women who know a place to get tested among women in rural and urban areas. The proportion of women who have been tested is 52 per cent for women residing in rural areas and 60 per cent for women residing in urban areas.

There are no major differences in the proportion of women with knowledge of a place to get tested by woman's age. Ninety six per cent of women who have previously been married or been in union are and 90 per cent of women who have never been married know of a place to get tested and 55 per cent and 46 per cent have been tested respectively.

Knowledge of a place to get tested ranges from 91 per cent to 91 per cent in women residing in households from the poorest and the richest wealth quintiles respectively. Testing ranges from 42 per cent to 55 per cent in women residing in the poorest and richest households.

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

Percentage of women age 15-49 years who know where to get an HIV test and percentage of women who have ever been tested, Homa Bay County, 2011		Percentage of women who:		Number of women
		Know a place to get tested [1]	Have ever been tested	
Area	Urban	96.3	60.1	87
	Rural	94.0	52.0	857
Age	15-19	89.3	37.8	210
	20-24	93.8	42.1	169
	25-29	96.6	51.9	197
	30-34	91.2	50.8	120
	35-39	98.3	64.2	112
	40-44	98.9	81.9	79
	45-49	97.5	83.9	58
Marital status	Ever married/in union	95.5	54.7	738
	Never married/in union	89.6	45.8	206
Education	None	93.7	61.1	57
	Primary	93.4	51.4	684
	Secondary +	97.2	55.1	203
Wealth index quintiles	Poorest	90.9	47.2	199
	Second	93.4	52.4	179
	Middle	95.3	55.1	183
	Fourth	94.8	54.3	212
	Richest	97.1	55.2	172
Total		**94.2**	**52.8**	**944**
[1] MICS indicator 9.5				

Table HA.6 presents the results knowledge of HIV testing and actual testing for HIV for sexually active young women aged 15 to 24 years. The proportion of young women who have been tested for HIV 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.

More than two thirds (69 per cent) of the women aged 15-24 years had sex in the last 12 months preceding the survey, but only 39 per cent of them have ever been tested for HIV. More than a third (39 per cent) of young women who have never been married or been in union had sex in the last 12 months preceding the survey. Fifty five per cent of young women who have never been married or been in union and 33 per cent of young women who have been married or in union have been tested for HIV.

Women aged 20-24 years are more likely (89 per cent) to have had sex in the last 12 months preceding the survey compared to those aged 15-19 years (52 per cent). There are no markeddifferences in the proportions of women who know of a place to get tested and have ever been tested between the two age groups.

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

		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]	
Area	Urban	(75.3)	38	(91.3)	(59.9)	(59.9)	29
	Rural	67.8	341	94.5	36.7	36.4	231
Age	15-19	51.9	210	94.7	38.3	38.3	109
	20-24	89.0	169	93.8	40.0	39.5	151
Marital status	Ever married/ in union	100.0	182	93.7	32.8	32.4	182
	Never married/ in union	39.3	197	95.4	54.5	54.5	77
Education	None	*	11	*	*	*	8
	Primary	73.6	250	94.4	36.2	36.2	184
	Secondary +	57.4	118	94.3	46.3	45.3	68
Wealth index quintiles	Poorest	65.1	83	94.8	29.3	29.3	54
	Second	70.0	64	(96.5)	(36.8)	(35.3)	45
	Middle	69.5	59	(100.0)	(43.5)	(43.5)	41
	Fourth	74.6	89	88.5	37.1	37.1	67
	Richest	63.5	84	94.2	50.9	50.9	53
Total		**68.5**	**379**	**94.2**	**39.3**	**39.0**	**260**

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, Homa Bay County, 2011

[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 per cent who received counselling and HIV testing during antenatal care is presented in Table HA.7. Ninety three per cent of women who gave birth in the last two years received antenatal care from a health care professional during the last pregnancy. Seventy seven per cent of all women received HIV counselling during antenatal care, 73 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, Homa Bay County, 2011

		Per cent of women who:					
		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	Number of women who gave birth in the 2 years preceding the survey
Area	Urban	*	*	*	*	*	24
	Rural	92.8	72.5	72.5	83.9	71.4	293
Young women	15-24	91.3	74.9	72.4	83.6	70.9	156
Age	15-19	91.1	75.9	74.9	86.9	73.6	63
	20-24	91.4	74.2	70.7	82.4	69.1	93
	25-29	91.3	71.7	67.8	80.5	67.8	79
	30-34	(97.6)	(88.1)	(88.1)	(96.3)	(88.1)	49
	35-49	(95.1)	(79.8)	(74.2)	(79.7)	(71.5)	32
Marital status	Ever married/ in union	93.5	77.3	74.1	85.2	73.5	275
	Never married/in union	(87.0)	(72.2)	(72.2)	(79.4)	(68.2)	41
Education	None	*	*	*	*	*	15
	Primary	92.5	75.7	72.1	82.7	71.1	244
	Secondary +	93.1	79.9	79.9	91.0	78.5	57
Wealth index quintiles	Poorest	92.4	77.1	71.6	78.1	69.7	78
	Second	95.7	75.1	73.2	90.2	73.2	63
	Middle	89.5	69.3	67.0	82.4	67.0	56
	Fourth	92.5	74.3	71.2	81.2	68.7	65
	Richest	92.8	88.2	88.2	92.8	88.2	54
Total		**92.6**	**76.6**	**73.9**	**84.4**	**72.8**	**316**

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

About 73 per cent of women aged 15-49 years in Homa Bay County were offered an HIV test and were tested for HIV during antenatal care, and received the results. Seventy nine per cent of, women with secondary or higher education and 71 per cent of women with primary receivedcounselling were offered an HIV test and tested for HIV during antenatal care and received the results. The proportion of women who received counselling, were offered an HIV test and were tested for HIV during antenatal care and received the results ranges from 70 per cent among women from households in the lowest wealth quintile to 88 per cent among women from households in the highest wealth quintile.

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 countries 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, Homa Bay 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
Residence	Urban	*	19	(24.2)	38	(7.5)	29
	Rural	42.1	177	31.3	341	13.0	231
Age	15-19	49.0	157	30.0	210	6.3	109
	20-24	(13.5)	40	31.3	169	16.8	151
Marital status	Ever married/ in union	.	0	35.7	182	17.7	182
	Never married/in union	41.8	197	25.9	197	0.0	77
Education	None	*	6	*	11	*	8
	Primary	49.3	109	36.1	250	13.9	184
	Secondary +	32.4	82	20.9	118	8.2	68
Wealth index quintiles	Poorest	(48.3)	45	30.2	83	14.7	54
	Second	(60.9)	27	31.0	64	(19.2)	45
	Middle	(35.2)	26	38.8	59	(8.9)	41
	Fourth	(27.2)	49	39.6	89	11.8	67
	Richest	43.0	50	15.4	84	7.9	53
Total		**41.8**	**197**	**30.6**	**379**	**12.4**	**260**

[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 wealth index, Homa Bay County, 2011

Women 15-24 who had sex before age 15

Women 15-24 who had sex in last 12 months with a man 10 years or more older
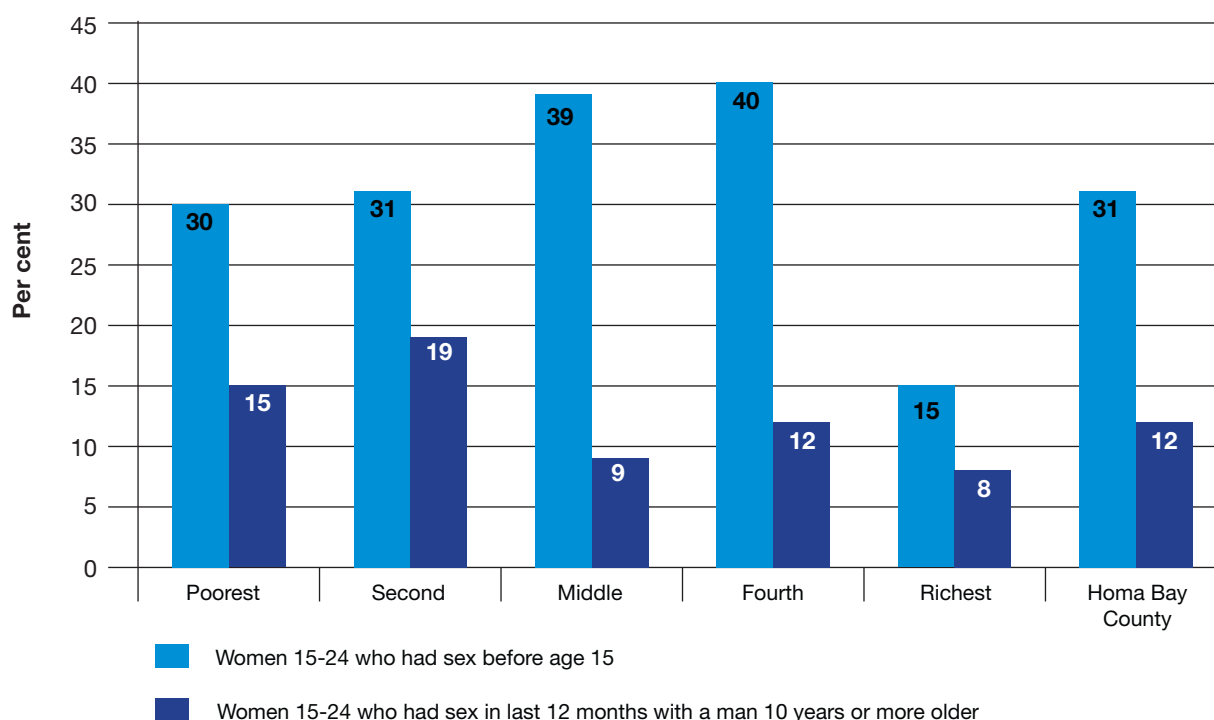
Less than half (42 per cent) of never-married young women aged 15-24 years have never had sex. Almost a third (31 per cent) of young women aged 15-24 years had sex before age 15. The proportion of young women who have sex before age 15 was 36 per cent among those who have ever-married or been in union and 26 per cent among women who have never been married or in union.

Twelve 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 almost thrice (17 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 age 15-19 years (6 per cent). 18 per cent women age 15-24 years who have had sex in the last 12 months with a man 10 or more years older have ever been married or in union. On the other hand, none of the women age 15-24 years who have never married or been in union has had sex in the last 12 months with a man 10 or more years older than them.

Sexual behaviour and condom use during sex with more than one partner was assessed in all women and separately for women age 15-24 years of age 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, Homa Bay County, 2011

		Percentage of women who:				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]	Number of women age 15-49 years		
Residence	Urban	91.4	81.1	7.6	87	*	7
	Rural	91.3	79.8	3.1	857	(37.0)	26
Age	15-19	63.4	51.9	3.2	210	*	7
	20-24	96.8	89.0	5.6	169	*	10
	25-29	100.0	95.4	3.5	197	*	7
	30-34	100.0	89.1	2.3	120	*	3
	35-39	100.0	83.0	2.5	112	*	3
	40-44	100.0	75.8	1.9	79	*	2
	45-49	100.0	82.7	4.6	58	*	3
Marital status	Ever married/in union	100.0	91.2	3.6	738	(40.9)	27
	Never married/in union	60.1	39.6	3.0	206	*	6
Education	None	96.4	82.6	1.8	57	*	1
	Primary	92.2	82.9	3.6	684	(41.7)	24
	Secondary +	86.9	69.1	3.6	203	*	7
Wealth index quintiles	Poorest	89.1	74.9	3.4	199	*	7
	Second	90.7	83.7	3.8	179	*	7
	Middle	95.0	81.9	2.8	183	*	5
	Fourth	93.7	82.7	3.3	212	*	7
	Richest	87.6	76.2	4.0	172	*	7
Total		**91.3**	**79.9**	**3.5**	**944**	**(46.7)**	**33**

[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

Table HA.10: Sex with multiple partners among young women

		Percentage of women who:				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]	Number of women age 15-24 years		
Residence	Urban	(80.5)	(75.3)	(12.8)	38	*	5
	Rural	78.1	67.8	3.3	341	*	11
Age	15-19	63.4	51.9	3.2	210	*	7
	20-24	96.8	89.0	5.6	169	*	10
Marital status	Ever married/in union	100.0	100.0	6.1	182	*	11
	Never married/ in union	58.2	39.3	2.6	197	*	5
Education	None	*	*	*	11	.	0
	Primary	78.6	73.6	4.3	250	*	11
	Secondary +	77.5	57.4	4.6	118	*	5
Wealth index quintiles	Poorest	73.9	65.1	2.4	83	*	2
	Second	73.8	70.0	4.2	64	*	3
	Middle	84.4	69.5	4.1	59	*	2
	Fourth	85.2	74.6	4.2	89	*	4
	Richest	74.6	63.5	6.5	84	*	5
Total		**78.3**	**68.5**	**4.3**	**379**	*****	**16**

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, Homa Bay County, 2011

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

Overall, 78 per cent of young women aged 15-24 have ever had sex, 69 per cent had sex in the last 12 months preceding the survey and 4 per cent had sex with more than one partner in the same period as shown in Table HA.10.

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 5 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 proportions of women who have had sex with a non-marital, non-cohabiting partner in the last 12 months preceding the survey are similar (5 per cent) across the two age groups. The proportion of young women who had sex with a non-marital, non-cohabiting partner in the last 12 months preceding the survey was 9 per cent among the never married or in union women and 3 per cent among the ever married or in union counterparts.

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, Homa Bay 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 15-24 years who had sex in last 12 months with a non-marital, non-cohabiting partner
	Ever had sex	Had sex in the last 12 months					
Residence							
Urban	(80.5)	(75.3)	38	(13.6)	29	*	4
Rural	78.1	67.8	341	3.6	231	*	8
Age							
15-19	63.4	51.9	210	4.7	109	*	5
20-24	96.8	89.0	169	4.7	151	*	7
Marital status							
Ever married/in union	100.0	100.0	182	2.9	182	*	5
Never married/in union	58.2	39.3	197	9.1	77	*	7
Education							
None	*	*	11	*	8	*	0
Primary	78.6	73.6	250	4.3	184	*	8
Secondary +	77.5	57.4	118	6.3	68	*	4
Wealth index quintiles							
Poorest	73.9	65.1	83	3.8	54	*	2
Second	73.8	70.0	64	(1.3)	45	*	1
Middle	84.4	69.5	59	(4.1)	41	*	2
Fourth	85.2	74.6	89	7.3	67	*	5
Richest	74.6	63.5	84	5.8	53	*	3
	78.3	**68.5**	**379**	**4.7**	**260**	*****	**12**

1 MICS indicator 9.15
2 MICS indicator 9.16; MDG indicator 6.2
* Not shown, based on less than 25 unweighted cases.
( ) Based on 25-49 unweighted cases

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. Over half (54 per cent) of children aged 0-17 years in Homa Bay County live with both parents. Fifty five per cent of female and 52 per cent male children in Homa Bay are living with both parents. Similarly, there is no difference in the proportion of children who live with both parents in urban and rural areas. The proportion of children living with both parents decreases with increasing age of child and ranges from 63 per cent in children in the 0 to 4 years age group to 36 per cent in children in 15 to 17 years age group.

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

Per cent 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, Homa Bay 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	Mother dead					
Sex	Male	52.4	1.5	2.9	4.7	6.2	13.0	13.4	2.2	1.9	1.8	100.0	15.3	26.1	1469
	Female	54.8	1.6	3.5	6.1	5.7	13.2	10.8	1.4	1.2	1.8	100.0	17.0	22.8	1398
Residence	Urban	54.8	0.0	3.5	4.0	7.1	12.0	11.9	5.3	0.8	0.5	100.0	14.6	23.8	188
	Rural	53.5	1.7	3.2	5.5	5.9	13.1	12.2	1.5	1.6	1.9	100.0	16.2	24.5	2680
Age	0-4	63.3	0.4	0.9	2.9	0.4	19.7	7.0	1.1	0.4	3.9	100.0	4.7	9.1	873
	5-9	57.1	1.3	3.2	5.2	3.6	11.3	14.1	2.0	1.5	0.8	100.0	13.3	23.8	850
	10-14	47.1	2.7	4.7	6.9	10.3	10.3	13.1	2.3	2.2	0.5	100.0	24.6	32.9	785
	15-17	35.5	2.6	5.6	8.8	15.5	7.2	18.0	2.0	3.0	2.0	100.0	32.4	45.2	360
Wealth index quintiles	Poorest	49.3	2.1	2.0	5.4	5.8	11.9	19.1	2.5	0.6	1.3	100.0	15.3	29.9	671
	Second	59.1	1.7	3.3	4.7	4.9	12.2	10.8	0.6	1.4	1.3	100.0	14.6	22.1	615
	Middle	58.9	0.6	3.2	5.3	4.9	12.7	11.2	0.8	1.2	1.4	100.0	13.9	21.0	595
	Fourth	50.8	1.8	3.0	5.4	7.9	16.7	9.1	1.3	1.7	2.3	100.0	18.1	23.6	599
	Richest	48.3	1.7	5.4	6.8	6.6	11.3	8.4	4.8	3.5	3.3	100.0	20.5	25.6	387
Total		**53.5**	**1.6**	**3.2**	**5.4**	**6.0**	**13.1**	**12.1**	**1.8**	**1.5**	**1.8**	**100.0**	**16.1**	**24.5**	**2868**

[1] MICS indicator 9.17
[2] MICS indicator 9.18

Sixteen per cent of children below 18 years are not living with a biological parent. The proportion of children not living with a biological parent increases with increasing age of a child. There are no major differences in the proportions of children not living with a biological parent based across area of residence or household wealth index.

Overall, 1 out of 4 (25 per cent) children aged 0-17 years has one or both parents' dead.There is no major difference in proportion of children who have one or both parents dead across urban-rural residence or household wealth index. The proportion of children who had one or both parents' dead increases with increasing age of a child from 9 per cent in children aged 0-4 years to 45 per cent in children aged 15-17 years.

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 Homa Bay County, 1 in 10 (10 per cent) children aged 10-14 years have lost both parents with no major difference by gender of child (Table HA.13). Among these, almost all (99 per cent) are currently attending school. 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 would suggest that double orphans are not disadvantaged compared to the non-orphaned children in terms of school attendance and the orphans to non-orphans school attendance ratio is 0.99.

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

School attendance of children age 10-14 years by orphanhood, Homa Bay County, 2011		Percentage of children whose mother and father have died (orphans)	Percentage of children of whom both parents are alive and child is living with at least one parent (non-orphans)	Number of children age 10-14 years	Percentage of children who are orphans and are attending school [1]	Total number of orphan children age 10-14 years	Percentage 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 attendance ratio
Sex	Male	11.8	58.9	377	100.0	44	99.0	222	1.01
	Female	8.9	60.4	407	97.3	36	99.6	246	0.98
Residence	Urban	6.5	69.8	48	100.0	3	100.0	34	1.00
	Rural	10.6	59.0	737	98.7	78	99.3	435	0.99
Total		**10.3**	**59.7**	**785**	**98.8**	**81**	**99.3**	**468**	**0.99**

[1] MICS indicator 9.19; MDG indicator 6.4
[2] MICS indicator 9.20; MDG indicator 6.4

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Appendix A. Sample Design

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.

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

Where

- n is the required sample size, expressed as number of households
- 4 is a factor to achieve the 95 per cent level of confidence
- r is the predicted or anticipated prevalence (coverage rate) of the indicator
- 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
- $\bar{n}$ 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**
Migori	907743	603728	125434	178581	18	32	50
Kisii	1142032	917260	87884	136888	11	39	50
Nyamira	592324	516335	23618	52371	7	43	50
Total					**75**	**225**	**300**

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 fhi, 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$_h$ *= Number of interviewed households in stratum h/ 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 = Completed women's (or under-5's) questionnaires in stratum h / 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

Survey Director

A.K Kilele, Director General, KNBS 2011

Technical Co-ordinators

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UNICEF Survey support team

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Susan Govedi
Isa Achoba
John Ndegwa Wagai
Joanne Bosworth

Appendix C. Estimates of Sampling Errors

The sample of respondents selected in the Homa Bay 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 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 (deft)	Weighted count	Unweighted count	Confidence limits	
									r - 2se	r + 2se
HOUSEHOLDS										
Iodized salt consumption	2.16	0.835	0.013	0.015	1.324	1.151	1061	1135	0.809	0.860
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	4.1	0.347	0.032	0.093	5.350	2.313	5010	1164	0.282	0.411
Use of improved sanitation facilities	4.3	0.146	0.013	0.087	1.520	1.233	5010	1164	0.121	0.172
Secondary school net attendance ratio (adjusted)	7.5	0.124	0.015	0.119	1.796	1.340	822	900	0.094	0.153
Child labour	8.2	0.554	0.018	0.032	2.277	1.509	1635	1752	0.518	0.590
Prevalence of children with at least one parent dead	9.18	0.245	0.014	0.055	3.066	1.751	2868	3076	0.218	0.272
School attendance of orphans	9.19	0.988	0.013	0.013	1.101	1.049	81	87	0.963	1.000
School attendance of non-orphans	9.2	0.993	0.003	0.003	0.792	0.890	468	505	0.987	1.000
Violent discipline	8.5	0.926	0.009	0.010	1.143	1.069	2178	891	0.907	0.945
WOMEN										
Pregnant women	-	0.061	0.008	0.128	1.095	1.046	944	1033	0.045	0.076
Pregnant women sleeping under insecticide-treated nets (ITNs)	3.19	0.742	0.043	0.058	0.598	0.773	57	62	0.655	0.829
Intermittent preventive treatment for malaria	3.2	0.249	0.023	0.091	0.882	0.939	293	319	0.204	0.295
Early childbearing	5.2	0.473	0.038	0.081	1.077	1.038	169	185	0.396	0.549
Contraceptive prevalence	5.3	0.417	0.024	0.057	1.592	1.262	618	682	0.369	0.465
Antenatal care coverage - at least once by skilled personnel	5.5a	0.926	0.013	0.014	0.791	0.889	316	345	0.901	0.951
Antenatal care coverage – at least four times by any provider	5.5b	0.526	0.030	0.058	1.263	1.124	316	345	0.466	0.587
Skilled attendant at delivery	5.7	0.495	0.041	0.083	2.329	1.526	316	345	0.413	0.578
Institutional deliveries	5.8	0.474	0.042	0.088	2.381	1.543	316	345	0.391	0.557
Caesarean section	5.9	0.073	0.016	0.221	1.322	1.150	316	345	0.041	0.105
Literacy rate among young women	7.1	0.749	0.019	0.026	0.816	0.903	379	414	0.711	0.788
Marriage before age 18	8.7	0.583	0.019	0.033	1.196	1.094	734	804	0.545	0.621

	8.9	0.2702	0.01451	0.054	0.727	0.852	618	682	0.242	0.299
Polygyny	8.9	0.2702	0.01451	0.054	0.727	0.852	618	682	0.242	0.299
Comprehensive knowledge about HIV prevention among young people	9.2	0.000	0.000	.	.	.	379	414	0.000	0.000
Knowledge of mother- to-child transmission of HIV	9.3	0.503	0.023	0.045	2.125	1.458	944	1033	0.458	0.548
Accepting attitudes towards people living with HIV	9.4	0.163	0.017	0.103	2.103	1.450	934	1022	0.129	0.197
Women who have been tested for HIV and know the results	9.6	0.516	0.022	0.042	1.915	1.384	944	1033	0.473	0.559
Sexually active young women who have been tested for HIV and know the results	9.7	0.393	0.030	0.076	1.057	1.028	260	283	0.333	0.452
Sex before age 15 among young women	9.11	0.306	0.022	0.071	0.909	0.953	379	414	0.263	0.349
Condom use with non-regular partners	9.16	0.877	0.004	0.004	0.002	0.039	12	13	0.870	0.885
UNDER-5s										
Underweight prevalence	2.1a	0.150	0.014	0.092	1.311	1.145	836	877	0.123	0.178
Stunting prevalence	2.2a	0.263	0.016	0.060	1.141	1.068	836	877	0.231	0.295
Wasting prevalence	2.3a	0.042	0.006	0.146	0.820	0.906	836	877	0.030	0.055
Exclusive breastfeeding under 6 months	2.6	0.350	0.043	0.122	0.745	0.863	88	94	0.264	0.435
Age-appropriate breastfeeding	2.14	0.500	0.038	0.075	1.989	1.410	340	354	0.425	0.575
Tuberculosis immunization coverage	-	0.948	0.019	0.020	1.202	1.097	165	173	0.911	0.985
Received polio immunization	-	0.756	0.032	0.043	0.984	0.992	165	173	0.691	0.821
Received DPT immunization	-	0.867	0.032	0.037	1.511	1.229	165	173	0.804	0.931
Received measles immunization	-	0.915	0.020	0.022	0.892	0.944	164	172	0.875	0.956
Diarrhoea in the previous 2 weeks	-	0.156	0.012	0.077	0.993	0.997	136	144	0.132	0.180
Illness with a cough in the previous 2 weeks	-	0.087	0.010	0.116	1.167	1.080	868	911	0.067	0.107
Fever in last two weeks	-	0.279	0.017	0.061	1.291	1.136	868	911	0.245	0.312
Oral rehydration therapy with continued feeding	3.8	0.665	0.042	0.064	1.147	1.071	136	144	0.580	0.749
Antibiotic treatment of suspected pneumonia	3.1	0.608	0.050	0.083	0.886	0.941	76	84	0.507	0.709
Children under age 5 sleeping under insecticide-treated nets (ITNs)	3.15	0.768	0.018	0.024	1.707	1.307	868	911	0.731	0.804
Anti-malarial treatment of children under age 5	3.18	0.316	0.033	0.104	1.287	1.135	242	260	0.250	0.381
Support for learning	6.1	0.231	0.019	0.083	0.780	0.883	356	374	0.193	0.270
Attendance to early childhood education	6.7	0.509	0.035	0.068	1.804	1.343	356	374	0.439	0.578
Birth registration	8.1	0.499	0.017	0.035	1.104	1.051	868	911	0.464	0.534

Appendix D: Data Quality Tables

Table DQ.1: Age distribution of household population

Single-year age distribution of household population by sex, Homa Bay County, 2011							
		Sex				Missing	
		Male		Female			
		Number	Per cent	Number	Per cent	Number	Per cent
Age	0	83	3.4	88	3.4	0	0.0
	1	77	3.2	82	3.2	0	0.0
	2	96	3.9	78	3.0	0	0.0
	3	92	3.8	87	3.4	0	0.0
	4	109	4.5	81	3.1	0	0.0
	5	106	4.3	81	3.1	0	0.0
	6	94	3.9	91	3.5	0	0.0
	7	88	3.6	75	2.9	0	0.0
	8	84	3.5	89	3.5	0	0.0
	9	64	2.6	77	3.0	0	0.0
	10	89	3.7	84	3.2	1	100.0
	11	77	3.1	72	2.8	0	0.0
	12	75	3.1	88	3.4	0	0.0
	13	71	2.9	82	3.2	0	0.0
	14	65	2.7	81	3.2	0	0.0
	15	81	3.3	58	2.2	0	0.0
	16	54	2.2	58	2.2	0	0.0
	17	64	2.6	46	1.8	0	0.0
	18	68	2.8	48	1.9	0	0.0
	19	45	1.8	37	1.4	0	0.0
	20	43	1.8	36	1.4	0	0.0
	21	19	0.8	46	1.8	0	0.0
	22	32	1.3	38	1.5	0	0.0
	23	28	1.2	38	1.5	0	0.0
	24	27	1.1	36	1.4	0	0.0
	25	35	1.4	47	1.8	0	0.0
	26	31	1.3	38	1.5	0	0.0
	27	24	1.0	40	1.6	0	0.0
	28	18	0.8	47	1.8	0	0.0
	29	27	1.1	42	1.6	0	0.0
	30	28	1.2	31	1.2	0	0.0
	31	20	0.8	24	0.9	0	0.0
	32	28	1.2	29	1.1	0	0.0
	33	20	0.8	29	1.1	0	0.0
	34	16	0.6	14	0.6	0	0.0
	35	28	1.1	32	1.3	0	0.0
	36	27	1.1	25	1.0	0	0.0
	37	20	0.8	22	0.8	0	0.0
	38	21	0.9	14	0.6	0	0.0
	39	18	0.7	24	0.9	0	0.0
	40	19	0.8	17	0.7	0	0.0

| | | Sex | | | | Missing | |
| | | Male | | Female | | | |
		Number	Per cent	Number	Per cent	Number	Per cent
Age	41	9	0.4	17	0.7	0	0.0
	42	13	0.5	20	0.8	0	0.0
	43	12	0.5	21	0.8	0	0.0
	44	6	0.3	10	0.4	0	0.0
	45	19	0.8	10	0.4	0	0.0
	46	10	0.4	11	0.4	0	0.0
	47	10	0.4	9	0.3	0	0.0
	48	12	0.5	12	0.5	0	0.0
	49	5	0.2	19	0.7	0	0.0
	50	9	0.4	14	0.5	0	0.0
	51	15	0.6	17	0.7	0	0.0
	52	4	0.2	20	0.8	0	0.0
	53	16	0.6	22	0.9	0	0.0
	54	7	0.3	13	0.5	0	0.0
	55	16	0.7	17	0.7	0	0.0
	56	9	0.4	8	0.3	0	0.0
	57	10	0.4	13	0.5	0	0.0
	58	10	0.4	11	0.4	0	0.0
	59	10	0.4	12	0.5	0	0.0
	60	17	0.7	13	0.5	0	0.0
	61	7	0.3	8	0.3	0	0.0
	62	9	0.4	17	0.7	0	0.0
	63	6	0.2	3	0.1	0	0.0
	64	9	0.4	7	0.3	0	0.0
	65	10	0.4	14	0.5	0	0.0
	66	5	0.2	3	0.1	0	0.0
	67	3	0.1	9	0.3	0	0.0
	68	5	0.2	7	0.3	0	0.0
	69	3	0.1	6	0.2	0	0.0
	70	6	0.2	8	0.3	0	0.0
	71	3	0.1	10	0.4	0	0.0
	72	3	0.1	3	0.1	0	0.0
	73	4	0.2	3	0.1	0	0.0
	74	2	0.1	2	0.1	0	0.0
	75	6	0.2	4	0.1	0	0.0
	76	3	0.1	4	0.2	0	0.0
	77	1	0.0	2	0.1	0	0.0
	78	3	0.1	3	0.1	0	0.0
	79	2	0.1	2	0.1	0	0.0
	80+	13	0.5	17	0.7	0	0.0
	DK/missing	4	0.2	0	0.0	0	0.0
Total		**2436**	**100.0**	**2574**	**100.0**	**1**	**100.0**

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

Household population of women age 10-54, interviewed women age 15-49, and percentage of eligible women who were interviewed, by five-year age groups, Homa Bay County, 2011					
		Household population of women age 10-54	Interviewed women age 15-49		Percentage of eligible women interviewed (Completion rate)
		Number	Number	Per cent	
Age	10-14	407	NA	NA	.
	15-19	246	215	22.2	87.5
	20-24	195	174	17.9	89.2
	25-29	214	202	20.8	94.5
	30-34	127	124	12.7	97.3
	35-39	118	115	11.8	97.2
	40-44	85	81	8.4	95.7
	45-49	61	59	6.1	97.5
	50-54	86	.	.	.
Total (15-49)		**1045**	**970**	**100.0**	**92.8**
NA: Not Applicable					

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

Household population of children age 0-7, children age 0-4 whose mothers/caretakers were interviewed, and percentage of under-5 children whose mothers/caretakers were interviewed, by single ages, Homa Bay County, 2011					
		Household population of children 0-7 years	Interviewed under-5 children		Percentage of eligible under-5s interviewed (Completion rate)
		Number	Number	Per cent	
Age	0	171	170	19.8	99.6
	1	159	159	18.4	99.6
	2	174	170	19.8	97.8
	3	179	177	20.6	98.7
	4	190	184	21.4	96.8
	5	186	NA	NA	NA
	6	185	NA	NA	NA
	7	164	NA	NA	NA
Total (0-4)		**873**	**860**	**100.0**	**98.5**
NA: Not Applicable					

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, Homa Bay 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	
Area	Rural	945	90.4	880	90.8	93.1
	Urban	100	9.6	89	9.2	89.6
Household size	1-3	826	79.0	197	20.4	95.8
	4-6	170	16.2	467	48.1	93.0
	7+	49	4.7	306	31.5	90.6
Education of household head	None	143	13.7	134	13.8	94.0
	Primary	684	65.4	635	65.5	92.9
	Secondary +	210	20.0	194	20.0	92.7
	Missing/DK	9	0.9	6	0.6	66.0
Wealth index quintiles	Poorest	218	20.9	204	21.1	93.8
	Second	201	19.2	183	18.9	91.4
	Middle	198	19.0	188	19.4	95.0
	Fourth	233	22.3	217	22.4	93.2
	Richest	195	18.7	176	18.2	90.4
Total		**1045**	**100.0**	**970**	**100.0**	**92.8**

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, Homa Bay 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	
Area	Rural	811	92.9	798	92.8	98.3
	Urban	62	7.1	62	7.2	100.0
Household size	1-3	104	11.9	87	10.2	98.8
	4-6	486	55.6	448	52.1	98.2
	7+	284	32.5	325	37.8	98.8
Education of household head	None	104	11.9	104	12.1	99.4
	Primary	602	69.0	592	68.9	98.3
	Secondary +	160	18.3	157	18.3	98.2
	Missing/DK	7	.8	7	.8	100.0
Wealth index quintiles	Poorest	213	24.4	207	24.1	97.4
	Second	177	20.3	171	19.9	96.5
	Middle	179	20.4	179	20.8	100.0
	Fourth	172	19.7	171	19.9	99.6
	Richest	133	15.2	132	15.3	99.2
Total		**873**	**100.0**	**860**	**100.0**	**98.5**

Table DQ.6: Completeness of reporting

Percentage of observations that are missing information for selected questions and indicators, Homa Bay County, 2011		
Questionnaire and Subject	Per cent with missing/ incomplete information*	Number of cases
Age	0.1	5372
Household		
Salt testing	0.0	1089
Starting time of interview	0.2	1089
Ending time of interview	0.0	1089
Women		
Woman's date of birth: Only month	22.2	944
Woman's date of birth: Both month and year	0.2	944
Date of first birth: Only month	0.2	772
Date of first birth: Both month and year	0.1	772
Completed years since first birth	0.0	772
Date of last birth: Only month	0.2	772
Date of last birth: Both month and year	0.1	772
Date of first marriage/union: Only month	2.3	738
Date of first marriage/union: Both month and year	1.3	738
Age at first marriage/union	0.3	738
Age at first intercourse	0.3	297
Time since last intercourse	0.0	297
Starting time of interview	0.2	944
Ending time of interview	0.1	944
Under-5		
Date of birth: Only month	0.6	868
Date of birth: Both month and year	0.0	868
Anthropometric measurements: Weight	1.5	868
Anthropometric measurements: Height	2.9	868
Anthropometric measurements: Both weight and height	1.5	868
Starting time of interview	0.2	868
Ending time of interview	0.5	868

Table DQ.7: Completeness of information for anthropometric indicators

Distribution of children under 5 by completeness of information for anthropometric indicators, Homa Bay 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	98.9	0.0	0.0	0.0	0.0	100.0	0.0	94
	6-11 months	100.0	0.0	0.0	0.0	0.0	100.0	0.0	87
	12-23 months	98.8	0.0	0.6	0.0	0.0	100.0	0.6	173
	24-35 months	99.5	0.0	0.5	0.0	0.0	100.0	0.5	183
	36-47 months	97.9	0.0	0.5	0.0	0.0	100.0	0.5	187
	48-59 months	94.7	0.5	1.1	0.0	0.0	100.0	1.6	187
Total		**98.0**	**0.1**	**0.5**	**0.0**	**0.0**	**100.0**	**0.7**	**911**

Table DQ.7: Completeness of information for anthropometric indicators

Distribution of children under 5 by completeness of information for anthropometric indicators, Homa Bay 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	85.1	13.8	0.0	0.0	0.0	100.0	13.8	94
	6-11 months	100.0	0.0	0.0	0.0	0.0	100.0	0.0	87
	12-23 months	98.3	0.6	0.6	0.0	0.0	100.0	1.2	173
	24-35 months	99.5	0.0	0.5	0.0	0.0	100.0	0.5	183
	36-47 months	97.9	0.0	0.5	0.0	0.0	100.0	0.5	187
	48-59 months	94.7	0.5	1.1	0.0	0.0	100.0	1.6	187
Total		**96.5**	**1.6**	**0.5**	**0.0**	**0.0**	**100.0**	**2.2**	**911**

Table DQ.7: Completeness of information for anthropometric indicators

Distribution of children under 5 by completeness of information for anthropometric indicators, Homa Bay County, 2011

					Reason for exclusion from analysis						
		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	Per cent of children excluded from analysis	Number of children under 5
Weight by height	<6 months	85.1	0.0	13.8	0.0	0.0	0.0	0.0	0.0	100.0	13.8	94
	6–11 months	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	87
	12–23 months	98.3	0.0	0.6	0.6	0.0	0.0	0.0	0.0	100.0	1.2	173
	24–35 months	99.5	0.0	0.0	0.5	0.0	0.0	0.0	0.0	100.0	0.5	183
	36–47 months	97.9	0.0	0.0	0.5	0.0	0.0	0.0	0.0	100.0	0.5	187
	48–59 months	94.7	0.0	0.0	1.1	0.0	0.0	0.0	0.0	100.0	1.1	187
Total		**96.5**	**0.0**	**1.5**	**0.5**	**0.0**	**0.0**	**0.0**	**0.0**	**100.0**	**2.1**	**911**

Table DQ.8: Heaping in anthropometric measurements

		Weight		Height	
		Number	Per cent	Number	Per cent
Digits	0	109	12.1	161	17.9
	1	90	10.0	73	8.1
	2	93	10.4	97	10.8
	3	77	8.6	60	6.7
	4	71	7.9	67	7.5
	5	76	8.5	136	15.1
	6	100	11.1	92	10.2
	7	100	11.1	74	8.2
	8	93	10.4	60	6.7
	9	89	9.9	78	8.7
	0 or 5	185	20.6	297	33.1
Total		**898**	**100.0**	**898**	**100.0**

Distribution of weight and height/length measurements by digits reported for decimals, Homa Bay County, 2011

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, Homa Bay 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 house-holds inter-viewed
Area	Rural	69.5	2467	2.3	97.4	0.1	100.0	1072
	Urban	74.3	201	6.5	93.5	0.0	100.0	92
Wealth index quintiles	Poorest	69.9	536	0.7	99.3	0.0	100.0	269
	Second	70.9	525	0.4	99.6	0.0	100.0	237
	Middle	76.7	525	1.4	98.6	0.0	100.0	219
	Fourth	64.5	599	2.5	96.7	0.0	100.0	244
	Richest	67.7	483	9.7	89.7	0.5	100.0	195
Total		**69.9**	**2668**	**2.7**	**97.1**	**0.1**	**100.0**	**1164**

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

Percent distribution of women with a live birth in the last 2 years by presence of a health card, and the percentage of health cards seen by the interviewers, Homa Bay 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	17.9	52.7	27.9	1.6	100.0	65.4	319
	Urban	7.7	38.5	53.8	0.0	100.0	41.7	26
Wealth index quintiles	Poorest	22.1	53.5	22.1	2.3	100.0	70.8	86
	Second	17.1	54.3	28.6	0.0	100.0	65.5	70
	Middle	20.0	48.3	31.7	0.0	100.0	60.4	60
	Fourth	16.4	52.1	28.8	2.7	100.0	64.4	73
	Richest	7.1	48.2	42.9	1.8	100.0	52.9	56
Total		**17.1**	**51.6**	**29.9**	**1.4**	**100.0**	**63.3**	**345**

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

Percent distribution of children under 5 by presence of birth certificates, and percentage of birth calendar seen, Homa Bay 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	77.6	7.1	14.7	.6	100.0	32.6	844
	Urban	67.2	9.0	22.4	1.5	100.0	28.6	67
Child's age	0	81.9	8.5	9.0	.6	100.0	48.4	177
	1	76.2	4.7	18.6	.6	100.0	20.0	172
	2	71.2	10.3	17.4	1.1	100.0	37.3	184
	3	79.1	5.8	14.1	1.0	100.0	28.9	191
	4	75.9	7.0	17.1	0.0	100.0	28.9	187
Total		**76.8**	**7.2**	**15.3**	**0.7**	**100.0**	**32.2**	**911**

Table DQ.12: Observation of vaccination cards

Percent distribution of children under 5 by presence of a vaccination card, and the percentage of vaccination cards seen by the interviewers, Homa Bay 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	59.0	26.7	14.3	0.0	100.0	68.9	844
	Urban	46.3	41.8	11.9	0.0	100.0	52.5	67
Child's age	0	71.8	16.9	11.3	0.0	100.0	80.9	177
	1	65.7	23.8	10.5	0.0	100.0	73.4	172
	2	58.7	29.9	11.4	0.0	100.0	66.3	184
	3	49.2	35.6	15.2	0.0	100.0	58.0	191
	4	46.5	31.6	21.9	0.0	100.0	59.6	187
Total		**58.1**	**27.8**	**14.2**	**0.0**	**100.0**	**67.6**	**911**

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, Homa Bay County, 2011							
		Mother in the household	Mother not in the household				
		Mother interviewed	Father interviewed	Other adult female interviewed	Other adult male interviewed	Total	Number of children under 5
Age	0	98.1	0.0	1.9	0.0	100.0	171
	1	93.9	0.0	6.1	0.0	100.0	159
	2	89.6	1.8	8.6	0.0	100.0	174
	3	93.7	0.0	6.3	0.0	100.0	179
	4	88.1	1.1	10.0	0.9	100.0	190
Total		**92.6**	**0.6**	**6.7**	**0.2**	**100.0**	**873**

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

Percent of households with at least two children age 2-14 years where correct selection of one child for the child discipline module was performed, Homa Bay 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	96.4	614
	Urban	93.0	43
Number of households by number of children 2-14	2	99.1	234
	3	96.3	188
	4	93.2	235
Total		**96.2**	**657**

Table DQ.15: School attendance by single age

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

Age at beginning of school year	Not attending school	Preschool/ kindergarten	Primary								Post primary					Secondary	Higher	DK	Total	Number of household members
			1	2	3	4	5	6	7	8	1	2	3	4	DK					
5	15.3	80.5	3.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	186
6	5.7	80.8	9.6	1.7	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.7	100.0	185
7	1.1	51.6	25.2	15.2	5.4	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	100.0	164
8	1.0	27.5	24.6	26.8	15.2	3.3	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	100.0	173
9	0.0	10.5	12.2	39.9	24.7	9.8	2.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	142
10	0.5	4.4	5.7	19.3	34.0	24.6	4.6	3.5	0.9	0.9	0.0	0.0	0.5	0.0	0.5	0.6	0.0	0.0	100.0	174
11	0.6	0.4	1.4	17.4	23.1	27.2	17.8	8.7	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	100.0	149
12	0.6	0.0	1.8	5.5	19.4	25.1	22.4	15.7	7.2	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	163
13	0.0	0.0	1.1	1.4	5.7	14.9	28.3	22.1	20.0	5.5	0.0	0.0	0.0	0.6	0.0	0.4	0.0	0.0	100.0	153
14	0.7	0.0	1.6	1.2	3.5	9.0	13.5	19.0	26.3	18.7	0.0	0.0	0.0	0.6	0.0	5.9	0.0	0.0	100.0	147
15	6.7	0.0	0.6	0.0	1.1	0.7	8.4	24.5	27.5	16.9	0.0	0.0	0.0	0.0	0.0	13.6	0.0	0.0	100.0	138
16	19.4	0.0	0.5	0.0	0.9	2.8	6.0	10.4	18.0	12.5	0.0	0.0	0.0	0.0	0.0	28.2	0.5	0.6	100.0	111
17	17.9	0.0	2.8	0.0	0.0	0.0	0.7	7.4	14.9	18.0	0.8	0.0	0.0	0.0	0.0	36.2	0.0	1.3	100.0	110
18	33.9	0.0	0.7	0.0	0.0	0.0	0.0	1.6	5.8	14.5	0.0	0.9	0.0	0.0	0.0	42.1	0.0	0.5	100.0	116
19	54.4	0.0	0.0	0.0	0.0	0.0	0.0	4.2	3.8	5.2	0.0	1.1	1.2	0.0	0.0	30.0	0.0	0.0	100.0	81
20	54.5	1.3	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0	1.1	1.0	2.0	0.0	31.6	4.7	0.8	100.0	79
21	74.1	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.5	2.8	0.0	0.0	0.0	0.0	0.0	11.8	8.8	0.0	100.0	65
22	78.2	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	1.4	0.0	0.0	0.0	15.9	0.9	0.0	100.0	70
23	89.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.4	0.0	0.0	0.0	1.2	0.0	6.5	0.0	0.0	100.0	66
24	88.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	7.2	0.0	100.0	64

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, Homa Bay 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	52	60	0.87	49	56	0.88	3	4	0.75	229
	20-24	179	177	1.01	161	162	0.99	18	15	1.20	185
	25-29	353	373	0.95	304	328	0.93	49	45	1.09	210
	30-34	325	290	1.12	275	238	1.16	50	52	0.96	130
	35-39	365	368	0.99	278	306	0.91	87	62	1.40	125
	40-44	274	245	1.12	202	205	0.99	72	40	1.80	85
	45-49	228	275	0.83	174	214	0.81	54	61	0.89	69
Total		**1776**	**1788**	**0.98**	**1443**	**1509**	**0.95**	**333**	**279**	**1.16**	**1033**

Table DQ.17: Births by calendar years

Number of births, percentage with complete birth date, sex ratio at birth, and calendar year ratio by calendar year, according to living, dead, and total children (weighted, un-imputed), Nyanza Province, Kenya, 2011

Year of birth	Number of births			Percent with complete birth date**			Sex ratio at birth***			Calendar year ratio****		
	Living	Dead	Total	Living	Dead	Total	Living	Dead	Total	Living	Dead	Total
2011	139	9	148	100	100	100	86.6	274.8	92.6	na	na	na
2010	147	13	160	99.5	100	99.6	89.1	73.9	87.8	98.6	138.4	100.9
2009	159	9	169	100	90.9	99.5	125.9	101.8	124.4	104.8	72.7	102.4
2008	157	13	170	100	85.3	98.9	99.7	83.6	98.4	97.8	98.1	97.8
2007	162	16	178	99.4	94.9	99	119.9	112.3	119.1	99.3	109.4	100.2
2006	169	17	186	98.4	100	98.5	109.1	49.3	101.6	109.2	92.2	107.4
2005	148	21	169	99.3	96.1	98.9	94.9	92.9	94.7	91.8	92.7	91.9
2004	153	29	181	96.5	96.9	96.6	122	200.1	131.5	107.6	103.8	107
2003	136	34	170	98	97	97.8	80.1	84.2	80.9	97.2	112.3	99.9
2002	127	32	159	96.4	94.7	96	99.6	136.7	106	103	107.7	103.9
2001	111	25	136	99.2	92.8	98	103.4	109.7	104.5	88.8	86.4	88.4
2000	123	26	149	95.5	95.9	95.6	104.8	177.3	114.6	118	107.3	115.9
1999	97	24	121	99.1	100	99.3	80.4	83.9	81.1	89.7	92.5	90.2
1998	94	25	119	99.1	92.6	97.7	78.2	262.3	99.6	95	107.8	97.5
1997	100	23	123	98.4	89.2	96.7	66.5	50.5	63.3	115.9	91.8	110.5
1996	79	25	104	99.3	97.4	98.8	81	247	104.3	99.1	98.2	98.9
1995	59	28	87	100	94	98.1	95	74.8	88.1	81.3	124.5	91.4
1994	66	19	86	100	81.2	95.7	94.6	101.9	96.2	114.8	92.8	108.9
1993	57	14	71	100	100	100	143.3	58.1	119.3	90.5	67.6	84.7
1992	59	23	82	99	95.4	98	88.8	114.3	95.4	17.9	79.8	22.9
2008-2012	602	44	646	99.9	93.8	99.5	99.9	106.4	100.3	na	na	na
2003-2007	767	118	885	98.3	97	98.1	104.9	101.6	104.4	na	na	na
1998-2002	552	131	683	97.7	95.1	97.2	93.8	141.3	101.4	na	na	na
1993-1997	361	109	470	99.4	92.3	97.7	88.7	91.8	89.4	na	na	na
<1993	401	154	555	97.7	96.2	97.3	89.3	135.4	100.2	na	na	na
DK/missing	1	1	2	0	0	0	na	0	97.7	na	na	na
Total	**2684**	**557**	**3241**	**98.6**	**95**	**97.9**	**96.8**	**116.4**	**100**	**na**	**na**	**na**

na: Not Applicable
* Interviews were conducted from [Month] to [Month]
** Both month and year of birth given
*** (Bm/Bf) x 100, where Bm and Bf are the numbers of male and female births, respectively
**** (2 x Bt/(Bt-1 + Bt+1)) x 100, where Bt is the number of births in calendar year t

Appendix E. Additional Table

Table NU.A1. Feeding patterns by age

	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 comp-lementary foods	Weaned (not breastfed)		
Age	10.5	3.6	10.1	13.9	41.5	20.4	100.0	340
0-1	73.1	10.3	16.6	0.0	0.0	0.0	100.0	8
2-3	73.6	16.3	10.1	0.0	0.0	0.0	100.0	8
4-5	35.9	21.6	0.0	38.2	0.0	4.2	100.0	16
6-7	17.7	21.2	30.0	31.1	0.0	0.0	100.0	13
8-9	29.6	4.1	12.1	54.2	0.0	0.0	100.0	20
10-11	22.1	6.6	18.6	41.4	8.5	3.0	100.0	23
12-13	12.7	0.0	17.6	32.5	37.2	0.0	100.0	16
14-15	0.0	4.5	6.5	24.2	64.8	0.0	100.0	16
16-17	0.0	0.0	13.7	21.0	60.4	4.9	100.0	13
18-19	0.0	0.0	0.0	4.3	90.3	5.4	100.0	17
20-21	0.0	0.0	28.2	0.0	71.8	0.0	100.0	12
22-23	7.2	0.0	5.0	0.0	65.7	22.0	100.0	14
24-25	4.3	0.0	4.5	6.1	59.4	25.7	100.0	21
26-27	0.0	0.0	0.0	7.3	73.1	19.6	100.0	12
28-29	0.0	6.4	20.0	0.0	62.0	11.6	100.0	15
30-31	6.2	0.0	0.0	6.0	70.1	17.8	100.0	16
32-33	0.0	0.0	0.0	0.0	77.8	22.2	100.0	17
34-35	0.0	0.0	19.9	0.0	58.9	21.1	100.0	10
Total	**10.5**	**3.6**	**10.1**	**13.9**	**41.5**	**20.4**	**100.0**	**340**

Appendix F. MICS4 Indicators: Numerators and Denominators

MICS4 INDICATOR		Module[10]	Numerator	Denominator	MDG[11]
1. MORTALITY					
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
2. NUTRITION					
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[12]	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	

10   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.

11   MDG indicators as of February 2010

12   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[10]	Numerator	Denominator	MDG[11]
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[13] 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	
3. CHILD HEALTH					
3.1	Tuberculosis immunization coverage[14]	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[10]	Numerator	Denominator	MDG[11]
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[15] 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)[16]	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
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	

15   See MICS4 manual for a detailed description

16   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[10]	Numerator	Denominator	MDG[11]
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	
4. WATER AND SANITATION					
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	
5. REPRODUCTIVE HEALTH					
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[17]	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
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

17   See MICS4 manual for a detailed description

MICS4 INDICATOR		Module[10]	Numerator	Denominator	MDG[11]
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	
6. CHILD DEVELOPMENT					
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	
7. LITERACY AND EDUCATION					
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	

	MICS4 INDICATOR	Module[10]	Numerator	Denominator	MDG[11]
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
8. CHILD PROTECTION					
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	
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	

MICS4 INDICATOR		Module[10]	Numerator	Denominator	MDG[11]
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	
9. HIV/AIDS, SEXUAL BEHAVIOUR AND ORPHANS					
9.1	Comprehensive knowledge about HIV prevention	HA	Number of women age 15-49 years who correctly identify two ways of preventing HIV infection[18], know that a healthy looking person can have HIV, and reject the two most common misconceptions about HIV transmission	Total number of women age 15-49 years	
9.2	Comprehensive knowledge about HIV prevention among young people	HA	Number of women age 15-24 years who correctly identify two ways of preventing HIV infection[12], 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[19] 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[20] 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	

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

19   Transmission during pregnancy, during delivery, and by breastfeeding

20   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[10]	Numerator	Denominator	MDG[11]
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	
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-cohabitating 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 G: Questionnaires

a) Household Questionnaire

b) Individual Women's Questionnaire

c) Children under 5 years Questionnaire

HOUSEHOLD QUESTIONNAIRE

unicef   **KNBS**
KENYA NATIONAL
BUREAU OF STATISTICS
Keeping you informed

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: _____	

After all questionnaires for the household have been completed, fill in the following information:

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: _____ <hr>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: *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.*

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.

HOUSEHOLD LISTING FORM — HL

HL0. Record the time

Hour — —

Minutes — —

FIRST, PLEASE TELL ME THE NAME OF EACH PERSON WHO USUALLY LIVES HERE, STARTING WITH THE HEAD OF THE HOUSEHOLD. *List the head of the household in line 01. List all household members (HL2), their relationship to the household head (HL3), and their sex (HL4).*

Then ask: ARE THERE ANY OTHERS WHO LIVE HERE, EVEN IF THEY ARE NOT AT HOME NOW? (THESE MAY INCLUDE CHILDREN IN SCHOOL OR AT WORK). *If yes, complete listing.*

Then, ask questions starting with HL5 for each person at a time. Add a continuation sheet if there is not enough room on this page.

Tick here if continuation sheet used ☐

HL1. Line no	HL2. Name	HL3. WHAT IS THE RELATIONSHIP OF (name) TO THE HEAD OF THE HOUSEHOLD?	HL4. IS (name) MALE OR FEMALE? 1 Male 2 Fem		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 HL6. Circle Line no. if woman is age 15-49	MOTHER OR CARETAKER OF CHILD 5-14 HL7. For each child age 5-14: WHO IS THE MOTHER OR PRIMARY CARETAKER OF THIS CHILD? Record line no. of mother/caretaker	ELIGIBILITY FOR UNDER-5 INTERVIEW HL8. For each child under 5: WHO IS THE MOTHER OR PRIMARY CARETAKER OF THIS CHILD? Record line no. of mother/caretaker	Ask if age 18-59 years HL8A. HAS (name) BEEN VERY SICK FOR AT LEAST 3 MONTHS DURING THE PAST 12 MONTHS?	HL9. IS (name's) NATURAL MOTHER ALIVE? 1 Yes 2 No →HL11 8 DK →HL11	HL10. If alive: DOES (name) S NATURAL MOTHER LIVE IN THIS HOUSEHOLD? Record line no. of mother or 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?	Ask if age 0-17 years HL11. IS (name's) NATURAL FATHER ALIVE? 1 Yes 2 No → Next Line 8 DK → Next Line	HL12. If alive: DOES (name) S NATURAL FATHER LIVE IN THIS HOUSEHOLD? Record line no. of father or 00 for 'no' → Next Line	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	Mother	Mother	Father				
01		01	1	2		01			Y N DK	Y N DK	Y N DK	128	128		Y N DK
02			1	2		02			128	128	128	128	128		128
03			1	2		03			128	128	128	128	128		128
04			1	2		04			128	128	128	128	128		128
05			1	2		05			128	128	128	128	128		128
06			1	2		06			128	128	128	128	128		128
07			1	2		07			128	128	128	128	128		128
08			1	2		08			128	128	128	128	128		128
09			1	2		09			128	128	128	128	128		128
10			1	2		10			128	128	128	128	128		128

Ask if age 0-17 years

Ask if age 18-59 years

HL1. Line no	HL2. Name	HL3. WHAT IS THE RELATIONSHIP OF (name) TO THE HEAD OF THE HOUSEHOLD?	HL4. IS (name) MALE OR FEMALE? 1 Male 2 Fem		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 HL6. Circle Line no. if woman is age 15-49	MOTHER OR CARETAKER OF CHILD 5-14 HL7. For each child age 5-14: WHO IS THE MOTHER OR PRIMARY CARETAKER OF THIS CHILD? Record line no. of mother/ caretaker	ELIGIBILITY FOR UNDER-5 INTERVIEW HL8. For each child under 5: WHO IS THE MOTHER OR PRIMARY CARETAKER OF THIS CHILD? Record line no. of mother/ caretaker	HL8A. HAS (name) BEEN VERY SICK FOR AT LEAST 3 MONTHS DURING THE PAST 12 MONTHS?	HL9. IS (name's) NATURAL MOTHER ALIVE? 1 Yes 2 No →HL11 8 DK →HL11	HL10. If alive: DOES (name) S NATURAL MOTHER LIVE IN THIS HOUSEHOLD? Record line no. of mother or 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 → Next Line 8 DK → Next Line	HL12. If alive: DOES (name) S 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 DK	Y N DK	Mother	Y N DK	Y N DK	Father	Y N DK
11			1	2		11			128	128		128	128		128
12			1	2		12			128	128		128	128		128
13			1	2		13			128	128		128	128		128
14			1	2		14			128	128		128	128		128
15			1	2		15			128	128		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

ED1. Line no.

ED1A. Name and age

For household members age 5 and above

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 less than 1 grade, enter 00
If Level=0 or 6, leave Grade blank

ED4. DURING THE CURRENT (2011) SCHOOL YEAR, DID (name) ATTEND SCHOOL, 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

For household members age 5-24 years

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, PRESCHOOL 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

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	ED2 Yes	ED2 No	ED3 Level	ED3 Grade	ED4 Yes	ED4 No	ED5 Days	ED6 Level	ED6 Grade	ED7 Y	ED7 N	ED7 DK	ED8 Level	ED8 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	
05			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	
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	
08			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	
09			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	
10			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	
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
	    Piped into compound, yard or plot.................................. 12
	    Piped to neighbor 13
	    Piped to water kiosk 14
	    Public tap/standpipe.. 15
	Tubewell/Borehole.. 21
	Dug well
	    Protected well 31
	    Unprotected well.. 32
	Water from spring
	    Protected spring 41
	    Unprotected spring.. 42
	Rainwater collection 51
	Tanker-truck.. 61
	Cart with small tank/drum 71
	Surface water (river, stream, dam, lake,
	    pond, canal, irrigation channel)....................................... 81
	
	Bottled water.. 91
	
	Other (*specify*) 96
		11 — ▸WS5
		12 — ▸WS5
		
		— ▸WS3
		
		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
	    Piped into yard or plot 12
	    Piped to neighbor 13
	    Piped to water kiosk 14
	    Public tap/standpipe.. 15
	Tubewell/Borehole.. 21
	Dug well
	    Protected well 31
	    Unprotected well.. 32
	Water from spring
	    Protected spring 41
	    Unprotected spring.. 42
	Rainwater collection 51
	Tanker-truck.. 61
	Cart with small tank/drum 71
	Surface water (river, stream, dam, lake,
	    pond, canal, irrigation channel)....................................... 81
	
	Other (*specify*) 96
		11 — ▸WS5
		12 — ▸WS5

WS3. HOW LONG DOES IT TAKE TO GO THERE, GET WATER, AND COME BACK?	No. of minutes .... __ __ __ Water on premises .... 995 DK 998	995 — ▸WS5
WS4. WHO USUALLY GOES TO THIS SOURCE TO COLLECT THE WATER FOR YOUR HOUSEHOLD? *Probe:* 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? *Probe:* ANYTHING ELSE? *Record all items mentioned.*	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?
 	
If "flush" or "pour flush", probe:
WHERE DOES IT FLUSH TO?
 	
If necessary, ask permission to observe the facility.
	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 (*specify*) 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 (*specify*)_____ 6	
HC2. HOW MANY ROOMS IN THIS HOUSEHOLD ARE USED FOR SLEEPING?	No. of rooms.. __ __	

HC3. MAIN MATERIAL OF THE DWELLING FLOOR:
 	
Record observation.
	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 (*specify*) 96	

HC4. MAIN MATERIAL OF THE ROOF.
 	
Record observation.
	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 (*specify*) 96	

HC5. MAIN MATERIAL OF THE WALLS.
 	
Record observation.
	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 (*specify*) 96
		2—▶WS7
		8—▶WS7

HC6. WHAT TYPE OF FUEL DOES YOUR HOUSEHOLD MAINLY USE FOR COOKING?	Electricity .... 01 Liquefied Petroleum Gas (LPG) .... 02 Natural gas .... 03 Biogas .... 04 Kerosene .... 05 Coal / Lignite .... 06 Charcoal .... 07 Wood .... 08 Straw/shrubs/grass .... 09 Animal dung .... 10 Agricultural crop residue .... 11 Other (*specify*) .... 96 No food cooked in household 97	01 — ►HC9 02 — ►HC9 03 — ►HC9 04 — ►HC9 05 — ►HC9 97 — ►HC9
HC8. IS THE COOKING USUALLY DONE IN THE INDOOR LIVING SPACE, IN A SEPARATE KITCHEN/BUILDING, OR OUTDOORS?	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 Other (*specify*) 6	
HC9. DOES YOUR HOUSEHOLD HAVE: A. ELECTRICITY? B. RADIO? C. COLOR TELEVISION? D. B&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?	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	
HC10. DOES ANY MEMBER OF YOUR HOUSEHOLD OWN: 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?	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	
HC10A. DO YOU OR SOMEONE LIVING IN THIS HOUSEHOLD OWN THIS DWELLING, OR DO YOU RENT THIS DWELLING?	Own .... 1 Rent .... 2 Rent free/squatter/other 3	
HC11. DOES ANY MEMBER OF THIS HOUSEHOLD OWN ANY LAND THAT CAN BE USED FOR AGRICULTURE?	Yes.. 1 No 2	2 — ►HC13

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

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? *If less than one month, record "00".*	Months ago .... __ __	
IR3. WHO SPRAYED THE HOUSE?	Government worker/program..1 Private company ....2 Household member...3 Other (*specify*) ....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 [ ]

	1ST NET	2ND NET	3RD 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? *If less than one month, record "00"*	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 hlth worker....14
	  Mobile/outreach
	  clinic 15
	  Other public
	  (*specify*)_____ 16
	
	Private medical sector
	  Private hospital/clinic21
	  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 hlth worker....14
		  Mobile/outreach
		  clinic 15
		  Other public
		  (*specify*)_____ 16
		
		Private medical sector
		  Private hospital/clinic21
		  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 hlth worker....14
			  Mobile/outreach
			  clinic 15
			  Other public
			  (*specify*)_____ 16
			
			Private medical sector
			  Private hospital/clinic21
			  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. *Check TN5 for type of net*	[ ] Long-lasting—▸TN10 [ ] Pretreated—▸TN8 [ ] Else—▸Continue	[ ] Long-lasting—▸TN10 [ ] Pretreated—▸TN8 [ ] Else—▸Continue	[ ] Long-lasting—▸TN10 [ ] Pretreated—▸TN8 [ ] 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? *If less than one month, record "00"*	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? *Record the person's line number from the household listing form* *If someone not in the household list slept under the mosquito net, record "00"*	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.	*Go back to TN3 for next net. If no more nets, go to next module*	*Go back to TN3 for next net. If no more nets, go to next module*	*Go back to TN3 for next net. If no more nets, go to next module*

ORPHANED & VULNERABLE CHILDREN			OV

<table>
<tr><td colspan="4">OV1. Check HL5: any children 0-17?

[ ] Yes —▶ Continue to OV2

[ ] No —▶ Child Labour Module</td></tr>
<tr><td>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?</td><td>Yes... 1
No .... 2</td><td>2—▶OV5</td></tr>
<tr><td>OV3. (OF THOSE WHO DIED IN THE PAST 12 MONTHS) WERE ANY OF THESE PEOPLE BETWEEN THE AGES OF 18 AND 59?</td><td>Yes... 1
No .... 2</td><td>2—▶OV5</td></tr>
<tr><td>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?</td><td>Yes... 1
No .... 2</td><td>1—▶OV8</td></tr>
</table>

OV5. Return to the Household Listing and check the following:

OV5A. Check HL9 and HL11.
     [ ] At least one mother or father dead. —▶ Go to OV8
     [ ] No mother or father dead

OV5B. Check HL8A.
     [ ] At least one adult aged 18-59 very sick 3 of last 12 months —▶ Go to OV8
     [ ] No adult aged 18-59 very sick 3 of last 12 months

OV5C. Check HL10A and HL12A.
     [ ] At least one mother or father very sick 3 of last 12 months —▶ Go to OV8
     [ ] No mother or father very sick 3 of last 12 months —▶ Go to Child Labour Module

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.

Tick here if additional questionnaire is used [ ]

	1ST CHILD	2ND CHILD	3RD CHILD	4TH CHILD
Name (from HL2)	_____	_____	_____	_____
Line number (from HL1)	_____	_____	_____	_____
Age (from HL5)	_____	_____	_____	_____

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.

OV10. NOW I WOULD LIKE TO ASK YOU ABOUT THE SUPPORT YOUR HOUSEHOLD RECEIVED FOR (*name*). IN THE LAST 12 MONTHS, HAS YOUR HOUSEHOLD RECEIVED ANY MEDICAL SUPPORT FOR (*name*), SUCH AS MEDICAL CARE, SUPPLIES OR MEDICINE?	Yes............1 No............2 DK............8	Yes............1 No............2 DK............8	Yes............1 No............2 DK............8	Yes............1 No............2 DK............8
OV11. IN THE LAST 12 MONTHS, HAS YOUR HOUSEHOLD RECEIVED ANY EMOTIONAL OR PSYCHOLOGICAL SUPPORT FOR (*name*), SUCH AS COMPANIONSHIP, COUNSELING FROM A TRAINED COUSELOR, OR SPIRITUAL SUPPORT, WHICH YOU RECEIVED AT HOME?	Yes............1 No............2 —▶OV13 DK............8	Yes............1 No............2 —▶OV13 DK............8	Yes............1 No............2 —▶OV13 DK............8	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	Yes............1 No............2 DK............8	Yes............1 No............2 DK............8	Yes............1 No............2 DK............8
OV13. IN THE LAST 12 MONTHS, HAS YOUR HOUSEHOLD RECEIVED ANY MATERIAL SUPPORT FOR (*name*), SUCH AS CLOTHING, FOOD OR FINANCIAL SUPPORT?	Yes............1 No............2 —▶OV15 DK............8	Yes............1 No............2 —▶OV15 DK............8	Yes............1 No............2 —▶OV15 DK............8	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	Yes............1 No............2 DK............8	Yes............1 No............2 DK............8	Yes............1 No............2 DK............8
OV15. IN THE LAST 12 MONTHS, HAS YOUR HOUSEHOLD RECEIVED ANY SOCIAL SUPPORT FOR (*name*), SUCH AS HELP IN HOUSEHOLD WORK, TRAINING FOR A CAREGIVER, OR LEGAL SERVICES?	Yes............1 No............2 —▶OV17 DK............8	Yes............1 No............2 —▶OV17 DK............8	Yes............1 No............2 —▶OV17 DK............8	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	Yes............1 No............2 DK............8	Yes............1 No............2 DK............8	Yes............1 No............2 DK............8
OV17. *Check OV8 for age of child:*	[ ] *Age 0-4* —▶*Next child* [ ] *Age 5-17* —▶ *OV18*	[ ] *Age 0-4* —▶*Next child* [ ] *Age 5-17* —▶ *OV18*	[ ] *Age 0-4* —▶*Next child* [ ] *Age 5-17* —▶ *OV18*	[ ] *Age 0-4* —▶*Next child* [ ] *Age 5-17* —▶ *OV18*
OV18. IN THE LAST 12 MONTHS, HAS YOUR HOUSEHOLD RECEIVED ANY SUPPORT FOR (*name's*) SCHOOLING, SUCH AS ALLOWANCE, FREE ADMISSION, BOOKS OR SUPPLIES?	Yes............1 No............2 DK............8	Yes............1 No............2 DK............8	Yes............1 No............2 DK............8	Yes............1 No............2 DK............8

CHILD LABOUR

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) FETCH 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 DID HE/SHE DO THIS WORK FOR HIS/HER FAMILY OR HIMSELF/HERSELF?

CL9. DURING THE PAST WEEK, DID (name) HELP WITH HOUSEHOLD CHORES SUCH AS SHOPPING, CLEANING, WASHING CLOTHES, COOKING; OR CARING FOR CHILDREN, OLD OR SICK PEOPLE?
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?

LINE	NAME	AGE	CL3 PAID	CL3 UNPAID	CL3 NO	CL4 NO. HOURS	CL5 YES	CL5 NO	CL6 NO. HOURS	CL7 YES	CL7 NO	CL8 NO. HOURS	CL9 YES	CL9 NO	CL10 NO. HOURS
01		_ _	1	2	3	__ __	1	2	__ __	1	2	__ __	1	2	__ __
02		_ _	1	2	3	__ __	1	2	__ __	1	2	__ __	1	2	__ __
03		_ _	1	2	3	__ __	1	2	__ __	1	2	__ __	1	2	__ __
04		_ _	1	2	3	__ __	1	2	__ __	1	2	__ __	1	2	__ __
05		_ _	1	2	3	__ __	1	2	__ __	1	2	__ __	1	2	__ __
06		_ _	1	2	3	__ __	1	2	__ __	1	2	__ __	1	2	__ __
07		_ _	1	2	3	__ __	1	2	__ __	1	2	__ __	1	2	__ __
08		_ _	1	2	3	__ __	1	2	__ __	1	2	__ __	1	2	__ __
09		_ _	1	2	3	__ __	1	2	__ __	1	2	__ __	1	2	__ __
10		_ _	1	2	3	__ __	1	2	__ __	1	2	__ __	1	2	__ __
11		_ _	1	2	3	__ __	1	2	__ __	1	2	__ __	1	2	__ __
12		_ _	1	2	3	__ __	1	2	__ __	1	2	__ __	1	2	__ __
13		_ _	1	2	3	__ __	1	2	__ __	1	2	__ __	1	2	__ __
14		_ _	1	2	3	__ __	1	2	__ __	1	2	__ __	1	2	__ __
15		_ _	1	2	3	__ __	1	2	__ __	1	2	__ __	1	2	__ __

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	__ __

CD7.	TOTAL CHILDREN AGED 2-14 YEARS	__

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

CD9. Record the rank number of the selected child	Rank number of child _____

CHILD DISCIPLINE		CD
Identify eligible child aged 2 to 14 in the household using the tables on the preceding page, according to your instructions.		
CD11. *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_____	
CD12. 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.		
CD12A. TOOK AWAY PRIVILEGES, FORBADE SOMETHING (name) LIKED OR DID NOT ALLOW HIM/HER TO LEAVE HOUSE).	Yes.. 1 No 2	
CD12B. EXPLAINED WHY SOMETHING (THE BEHAVIOR) WAS WRONG.	Yes.. 1 No 2	
CD12C. SHOOK HIM/HER.	Yes.. 1 No 2	
CD12D. SHOUTED, YELLED AT OR SCREAMED AT HIM/HER.	Yes.. 1 No 2	
CD12E. GAVE HIM/HER SOMETHING ELSE TO DO.	Yes.. 1 No 2	
CD12F. SPANKED, HIT OR SLAPPED HIM/HER ON THE BOTTOM WITH BARE HAND.	Yes.. 1 No 2	
CD12G. 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	
CD12H. CALLED HIM/HER DUMB, LAZY, OR ANOTHER NAME LIKE THAT.	Yes.. 1 No 2	
CD12I. HIT OR SLAPPED HIM/HER ON THE FACE, HEAD OR EARS.	Yes.. 1 No 2	

CD12J. HIT OR SLAPPED HIM/HER ON THE HAND, ARM, OR LEG.	Yes...1 No 2	
CD12K. BEAT HIM/HER UP WITH AN IMPLEMENT (HIT OVER AND OVER AS HARD AS ONE COULD).	Yes...1 No 2	
CD13. 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	

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 IN 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	DA3 Y	DA3 N	DA4 Y	DA4 N	DA5 Y	DA5 N	DA6 Y	DA6 N	DA7 Y	DA7 N	DA8 Y	DA8 N	DA9 Y	DA9 N	DA10 Y	DA10 N	DA11 Y	DA11 N	DA12 Y	DA12 N	DA13 Y	DA13 N
01		_ _	1	2	1	2	1	2	1	2	1	2	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	1	2	1	2	1	2	1	2	1	2
03		_ _	1	2	1	2	1	2	1	2	1	2	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	1	2	1	2	1	2	1	2	1	2
05		_ _	1	2	1	2	1	2	1	2	1	2	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	1	2	1	2	1	2	1	2	1	2
07		_ _	1	2	1	2	1	2	1	2	1	2	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	1	2	1	2	1	2	1	2	1	2
09		_ _	1	2	1	2	1	2	1	2	1	2	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	1	2	1	2	1	2	1	2	1	2
11		_ _	1	2	1	2	1	2	1	2	1	2	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	1	2	1	2	1	2	1	2	1	2
13		_ _	1	2	1	2	1	2	1	2	1	2	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	1	2	1	2	1	2	1	2	1	2
15		_ _	1	2	1	2	1	2	1	2	1	2	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?
 	
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".
	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? *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.*	Water available .... 1 Water not available.. 2	
HW3. Soap or detergent present at the specific place for hand washing? *Record observation. Circle all that apply.*	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? *Record observation. Circle all that apply*	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?
 	
Once you have examined the salt, circle number that corresponds to test outcome.
	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	__ __ : __ __

SI2. *Does any eligible woman age 15-49 reside in the household?*
Check household listing, column HL6. You should have a questionnaire with the Information Panel filled in for each eligible woman.

[ ] *Yes.* —▸ *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)

[ ] *No.* —▸ *Continue.*

SI3. *Does any child under the age of 5 reside in the household?*
Check household listing, column HL8. You should have a questionnaire with the Information Panel filled in for each eligible child.

[ ] *Yes.* —▸ *Go to Under-5 Questionnaire*
to administer the questionnaire to mother or caretaker of the first eligible child.

[ ] *No.* —▸ *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.

REMARKS AND OBSERVATIONS

SUPERVISOR

FIELD EDITOR

FIELD MONITORS/CO-ORDINATORS

OFFICE EDITOR

WOMEN QUESTIONNAIRE

WOMEN'S INFORMATION PANEL	**WM**

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.

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: ___ ___ / ___ ___ / ___ ___ ___ ___

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?

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.

WM7. Result of women's interview	Completed..1 Not at home...2 Refused ....3 Partly completed ....4 Incapacitated..5 Other (*specify*) 6

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.*

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. *Record the time.*	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? *If less than 1 grade, enter 00*	Grade.. __ __	
WM13. *Check WM11:* [ ] *Secondary or higher.* —▸ *Go to Next Module* [ ] *Preschool, primary or non-formal education.* —▸ *Continue with WM14*		
WM14. NOW I WOULD LIKE YOU TO READ THIS SENTENCE TO ME. *Show sentences to respondent. If respondent cannot read whole sentence, probe:* CAN YOU READ PART OF THE SENTENCE TO ME? *Example sentences for literacy test:* *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.*	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
All questions refer only to LIVE births.		
CM1. NOW I WOULD LIKE TO ASK ABOUT ALL THE BIRTHS YOU HAVE HAD DURING YOUR LIFE. HAVE YOU EVER GIVEN BIRTH? *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?	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 (*number in CM9*) BIRTHS DURING YOUR LIFE. IS THIS CORRECT? [ ] *Yes. —► Go to BH1* [ ] *No. —► Check responses and make corrections before proceeding to BH1*		

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		Y	N		Days......1 Month......2 Year......3	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	1A *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*

No.			Date					Age at death	
08	1	2	__/__/__	1	2—▶BH9	1	2	→BH10	Days...........1 Month............2 Year................3	1 *Add* / 2 *Next*
09	1	2	__/__/__	1	2—▶BH9	1	2	→BH10	Days...........1 Month............2 Year................3	1 *Add* / 2 *Next*
10	1	2	__/__/__	1	2—▶BH9	1	2	→BH10	Days...........1 Month............2 Year................3	1 *Add* / 2 *Next*
11	1	2	__/__/__	1	2—▶BH9	1	2	→BH10	Days...........1 Month............2 Year................3	1 *Add* / 2 *Next*
12	1	2	__/__/__	1	2—▶BH9	1	2	→BH10	Days...........1 Month............2 Year................3	1 *Add* / 2 *Next*
13	1	2	__/__/__	1	2—▶BH9	1	2	→BH10	Days...........1 Month............2 Year................3	1 *Add* / 2 *Next*
14	1	2	__/__/__	1	2—▶BH9	1	2	→BH10	Days...........1 Month............2 Year................3	1 *Add* / 2 *Next*
15	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
This module is to be administered to all women with a live birth in the 2 years preceding date of interview.		
TT1. DO YOU HAVE A CARD OR OTHER DOCUMENT WITH YOUR OWN IMMUNIZATIONS LISTED? *If a card is presented, use it to assist with answers to the following questions.*	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? *Probe:* 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? [ ] *At least two TT injections during last pregnancy.* —► *Go to Next Module* [ ] *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*)? *Skip to next module only if year of injection is given. Otherwise, continue with TT8.*	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
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.*		
MN1. IN THE FIRST TWO MONTHS AFTER THE BIRTH OF (*name*), DID YOU RECEIVE A VITAMIN A DOSE LIKE THIS? *Show 200,000 IU capsule or dispenser.*	Yes .... 1 No .... 2 DK 8	

MN2. DID YOU SEE ANYONE FOR ANTENATAL CARE FOR THIS PREGNANCY? *If yes:* WHOM DID YOU SEE? ANYONE ELSE? *Probe for the type of person seen and circle all answers given.*	Health professional
	     Doctor ....A
	     Community nurse ....B
	     Clinical officer C
	     Nurse/Midwife...D
	
	 Other person
	     Traditional birth attendant.......................E
	     Community health worker.........................F
	
	 Relative/friend ....G
	
	 Other (specify) X
	
	 No one...Y
		
		 Y—▸MN7

MN2A. HOW MANY TIMES DID YOU RECEIVE ANTENATAL CARE DURING THIS PREGNANCY?	No. of times .... __ __ DK 98	
MN3. AS PART OF YOUR ANTENATAL CARE, WERE ANY OF THE FOLLOWING DONE AT LEAST ONCE? A. WERE YOU WEIGHED? B. WAS YOUR BLOOD PRESSURE MEASURED? C. DID YOU GIVE A URINE SAMPLE? D. DID YOU GIVE A BLOOD SAMPLE?	Yes No Weight ....1 2 Blood pressure ....1 2 Urine sample ....1 2 Blood sample 1 2	
MN4. DURING ANY OF THE ANTENATAL VISITS FOR THE PREGNANCY, WERE YOU GIVEN ANY INFORMATION OR COUNSELED ABOUT AIDS OR THE AIDS VIRUS?	Yes .... 1 No .... 2 DK 8	
MN5. I DON'T WANT TO KNOW THE RESULTS, BUT WERE YOU TESTED FOR HIV/AIDS AS PART OF YOUR ANTENATAL CARE?	Yes .... 1 No .... 2 DK 8	2—▸ MN6A 8—▸ MN6A
MN6. I DON'T WANT TO KNOW THE RESULTS, BUT DID YOU GET THE RESULTS OF THE TEST?	Yes .... 1 No .... 2 DK 8	

MN6B. WHICH MEDICINES DID YOU TAKE TO PREVENT MALARIA?	SP/Fansidar ....A Chloroquine ....B Other (specify) ....X DK..Z	
MN6C. *Check MN6B for medicine taken:* [ ] *SP/Fansidar taken.—▸ Continue with MN6D* [ ] *SP/Fansidar not taken.—▸Go to MN7*		
MN6D. HOW MANY TIMES DID YOU TAKE SP/FANSIDAR?	Number of times.. __ __	

MN7. WHO ASSISTED WITH THE DELIVERY OF (name)?
 	
Probe:
ANYONE ELSE?
 	
Probe for the type of person assisting and circle all answers given.
	Health professional
	    Doctor ....A
	    Community nurse ....B
	    Clinical officer C
	    Nurse/Midwife..D
	
	Other person
	    Traditional birth attendant..E
	    Community health worker...F
	
	Relative/friend ....G
	
	Other (specify) X
	
	No one...Y	

MN8. WHERE DID YOU GIVE BIRTH TO (name)?
 	
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.
 	
_____
(Name of place)
	Your home 11
	Other home 12
	
	Public Sector
	    Government hospital 21
	    Government health center 22
	    Government dispensary...23
	    Other public (specify) 26
	
	Private medical sector
	    Mission hospital/clinic 31
	    Private hospital/clinic...32
	    Nursing/maternity home 33
	    Other private medical (specify) 36
	
	Other (specify) 96
		98
		—▸ MN8C

MN8A. HOW LONG AFTER (name) WAS DELIVERED DID YOU STAY THERE? *If less than one day, record hours.* *If less than one week, record days.*	Hours...1 __ __ Days ....2 __ __ Weeks...3 __ __ Don't know/remember...998	
MN8B. WAS (name) DELIVERED BY CAESEREAN SECTION?	Yes..1 No..2	1—▸ MN8D 2—▸ MN8D

MN8C. WHY DIDN'T YOU DELIVER (name) IN A HEALTH FACILITY? *Probe:* ANY OTHER REASON? *Record all mentioned.*	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 Other (*specify*) X	
MN8D. AFTER (*name*) WAS BORN, DID ANY HEALTH CARE PROVIDER OR A TRADITIONAL BIRTH ATTENDANT CHECK ON YOUR HEALTH?	Yes...1 No...2	2 —▶ MN8I
MN8E. HOW LONG AFTER THE BIRTH OF (name) DID THIS FIRST CHECK TAKE PLACE? *If less than one day, record hours.* *If less than one week, record days.*	Hours...1 __ __ Days ....2 __ __ Weeks ....3 __ __ Don't know/remember...998	

MN8F. WHO CHECKED ON YOUR HEALTH AT THAT TIME?
 	
Probe for most qualified person
	Health professional
	    Doctor 11
	    Community nurse 12
	    Clinical officer 13
	    Nurse/Midwife.. 14
	
	Other person
	    Traditional birth attendant............................. 21
	    Community health worker................................ 22
	
	Other (*specify*) 96	

MN8G. WHERE DID THIS FIRST CHECK TAKE PLACE?
 	
Probe to identify the type of source and circle the appropriate code.
 	
If unable to determine if a hospital, health centre, or clinic is public or private medical, write the name of the place
 	
_____
(Name of place)
	Your home 11
	Other home 12
	
	Public Sector
	    Government hospital 21
	    Government health center 22
	    Government dispensary.................................. 23
	    Other public (*specify*)...................................... 26
	
	Private medical sector
	    Mission hospital/clinic 31
	    Private hospital/clinic..................................... 32
	    Nursing/maternity home 33
	    Pharmacy... 34
	    Other private medical (*specify*) 36
	
	Other (*specify*) 96
	
	DK 98	

MN8H. WAS THE HEALTH OF (*name*) ALSO CHECKED AT THIS TIME?	Yes...1 No...2	2 —▶ MN8I

MN8H2. WAS THIS ALSO THE FIRST TIME (*name's*) HEALTH WAS CHECKED?	Yes... 1 No... 2	1—►MN9 2—►MN8J
MN8I. AFTER (*name*) 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 (name) DID THIS FIRST CHECK TAKE PLACE? *If less than one day, record hours.* *If less than one week, record days.*	Hours .... 1 __ __ Days .... 2 __ __ Weeks .... 3 __ __ Don't know/remember... 998	

MN8K. WHO CHECKED ON (*name's*) HEALTH AT THAT TIME?
 	
Probe for most qualified person
	Health professional
	    Doctor 11
	    Community nurse 12
	    Clinical officer 13
	    Nurse/Midwife.. 14
	
	Other person
	    Traditional birth attendant................................ 21
	    Community health worker.................................. 22
	
	Other (*specify*) 96	

MN8L. WHERE DID THIS FIRST CHECK TAKE PLACE?
 	
Probe to identify the type of source and circle the appropriate code.
 	
If unable to determine if a hospital, health centre, or clinic is public or private medical, write the name of the place
 	
_____
(Name of place)
	Your home 11
	Other home 12
	Public Sector
	    Government hospital 21
	    Government health center 22
	    Government dispensary..................................... 23
	    Other public (*specify*)...................................... 26
	
	Private medical sector
	    Mission hospital/clinic 31
	    Private hospital/clinic.. 32
	    Nursing/maternity home 33
	    Pharmacy.. 34
	    Other private medical (*specify*) 36
	
	Other (*specify*) 96
	
	DK 98	

MN8M. WERE YOU PRESENT WHEN THIS FIRST CHECK TOOK PLACE?	Yes... 1 No... 2	
MN9. WHEN YOUR LAST CHILD (*name*) 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	

MN10. WAS (*name*) WEIGHED AT BIRTH?	Yes 1	
	No 2	2━▸MN12
	DK 8	8━▸MN12
MN11. HOW MUCH DID (name) WEIGH? *Record weight from health card, if available.*	From card .... 1 (kilograms) __ . __ __ __	
	From recall....................................... 2 (kilograms) __ . __ __ __	
	DK... 99998	
MN12. DID YOU EVER BREASTFEED (*name*)?	Yes 1	
	No 2	2━▸NEXT MODULE
MN13. HOW LONG AFTER BIRTH DID YOU FIRST PUT (*name*) TO THE BREAST? *If less than 1 hour, record '00' hours.* *If less than 24 hours, record hours.* *Otherwise, record days.*	Immediately 000	
	Hours .... 1 __ __	
	Days .... 2 __ __	
	Don't know/remember.. 998	

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
CP1. I WOULD LIKE TO TALK WITH YOU ABOUT ANOTHER SUBJECT – FAMILY PLANNING – AND YOUR REPRODUCTIVE HEALTH. ARE YOU PREGNANT NOW?	Yes, currently pregnant... 1 No .... 2 Unsure or DK 8	 2 —▸CP2 8 —▸CP2
CP1A. AT THE TIME YOU BECAME PREGNANT DID YOU WANT TO BECOME PREGNANT THEN, DID YOU WANT TO WAIT UNTIL LATER, OR DID YOU NOT WANT TO HAVE ANY MORE CHILDREN?	Then.. 1 Later .... 2 Not want more children 3	1 —▸CP4B 2 —▸CP4B 3 —▸CP4B
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?	Yes... 1 No 2	 2 —▸CP4A
CP3. WHICH METHOD ARE YOU USING? *Do not prompt.* *If more than one method is mentioned, circle each one.*	Female sterilization...A Male sterilization..B Pill C IUD ....D Injections ....E Implants..F Condom..G Female condom...H Diaphragm.. I Foam/jelly ....J Lactational amenorrhea method (LAM)..K Periodic abstinence..L Withdrawal...M Other (*specify*) X	

CP3B. *Check CP3:*

[ ] *Currently using "Female sterilization"?* —▸ *Go to Next Module*

[ ] *Not currently using "Female sterilization"* —▸ *Continue with CP4A*

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? CP4B. *If currently pregnant:* 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?	Have (a/another) child .... 1 No more/none .... 2 Says she cannot get pregnant .... 3 Undecided/don't know... 8	 2—▶CP4D 3—▶CP4F 8—▶CP4D
CP4C. HOW LONG WOULD YOU LIKE TO WAIT BEFORE THE BIRTH OF (A/ANOTHER) CHILD?	Months ....1 __ __ Years..2 __ __ Soon/now .... 993 Says she cannot get pregnant .... 994 After marriage... 995 Other.. 996 Don't know 998	 994—▶CP4F

CP4D. *Check CP1:*

[ ] *Currently pregnant?* —▶ *Go to Next Module*

[ ] *Not currently pregnant or unsure?* —▶ *Continue with CP4D2*

CP4D2. *Check CP3.*

[ ] *Currently using a method?* —▶ *Go to Next Module*

[ ] *Not using a method (CP3 Blank)?* —▶ *Continue with CP4E*

CP4E. DO YOU THINK YOU ARE PHYSICALLY ABLE TO GET PREGNANT AT THIS TIME?	Yes.. 1 No .... 2 DK 8	1—▶NEXT MODULE 8—▶NEXT MODULE
CP4F. WHAT IS THE REASON YOU THINK YOU CANNOT GET PREGNANT?	Infrequent sex/No sex .... 01 Menopausal.. 02 Hysterectomy .... 03 Subfecund / Infecund... 04 Postpartum amenorrheic... 05 Breastfeeding .... 06 Too old... 07 Fatalistic .... 08 Other (*specify*) .... 96 DK 98	

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 (*specify*)................................. 16
	
	Health professional
	    Doctor 21
	    Nurse/midwife 22
	    Other health professional (*specify*) 26
	
	DK 98	

FG8. *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?* [ ] *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? *Record the daughter's name.*	Name of daughter:	

FG11. NOW I WOULD LIKE TO ASK YOU WHAT WAS DONE TO (*name*) AT THAT TIME. WAS ANY FLESH REMOVED FROM THE GENITAL AREA?	Yes... 1 No .... 2 DK 8	1━▸FG13
FG12. WAS THE GENITAL AREA JUST NICKED WITHOUT REMOVING ANY FLESH?	Yes... 1 No .... 2 DK 8	
FG13. WAS THE GENITAL AREA SEWN CLOSED? *If necessary, Probe:* WAS IT SEALED?	Yes... 1 No .... 2 DK 8	
FG14. HOW OLD WAS (*name*) WHEN THIS OCCURRED? *If the respondent does not know the age, probe to get an estimate.*	Daughter's age at circumcision .... __ __ DK 98	

FG15. WHO DID THE CIRCUMCISION?	Traditional persons
	    Traditional 'circumciser'.. 11
	    Traditional birth attendant.. 12
	    Other traditional (*specify*).. 16
	
	Health professional
	    Doctor 21
	    Nurse/midwife 22
	    Other health professional (*specify*) 26
	
	DK 98	

FG16. DO YOU THINK THIS PRACTICE SHOULD BE CONTINUED OR SHOULD IT BE DISCONTINUED?	Continued... 1 Discontinued .... 2 Depends .... 3 DK 8	

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
Check for the presence of others. Before continuing, ensure privacy.		
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? *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.*	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? *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.*	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? *If response is DK, probe:* ABOUT HOW OLD IS THIS PERSON?	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	

SB8. WHAT IS YOUR RELATIONSHIP TO THIS MAN? *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.*	Spouse / cohabiting partner.. 1 Man is boyfriend / fiancée .... 2 Other friend .... 3 Casual acquaintance... 4 Other (*specify*) 6	1—►SB10
SB9. HOW OLD IS THIS PERSON? *If response is DK, probe:* ABOUT HOW OLD IS THIS PERSON?	Age of sexual partner .... __ __ DK 98	
SB10. OTHER THAN THESE TWO MEN, HAVE YOU HAD SEX WITH ANY OTHER MAN IN THE LAST 12 MONTHS?	Yes.. 1 No 2	2—►NEXT MODULE
SB11. IN TOTAL, WITH HOW MANY DIFFERENT MEN HAVE YOU HAD SEX IN THE LAST 12 MONTHS?	No. of partners .... __ __	

HIV/AIDS		HA
HA1. NOW I WOULD LIKE TO TALK WITH YOU ABOUT SOMETHING ELSE. HAVE YOU EVER HEARD OF THE VIRUS HIV OR AN ILLNESS CALLED AIDS?	Yes... 1 No 2	2—►NEXT MODULE
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? B. DURING DELIVERY? C. BY BREASTFEEDING?	Yes No DK During pregnancy .... 1 2 8 During delivery.. 1 2 8 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. *Check MN5: Tested for HIV during antenatal care?* [ ] *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 __ __ : __ __

REMARKS AND OBSERVATIONS

SUPERVISOR

FIELD EDITOR

FIELD MONITORS/CO-ORDINATORS

OFFICE EDITOR

QUESTIONNAIRE FOR CHILDREN UNDER FIVE

unicef

KNBS
KENYA NATIONAL
BUREAU OF STATISTICS

UNDER-FIVE CHILD INFORMATION PANEL	UF

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.

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: ___ ___ /___ ___ / ___ ___ ___ ___

Repeat greeting if not already read to this respondent:

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?

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.

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

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.*

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..................................__ __ : __ __	

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 (*name*). IN WHAT MONTH AND YEAR WAS (*name*) BORN? *Probe:* WHAT IS HIS/HER BIRTHDAY? *If the mother/caretaker knows the exact birth date, also enter the day; otherwise, circle 98 for day* *MONTH AND YEAR MUST BE RECORDED.*	Date of birth: Day ....·__ __ DK day .... 98 Month...·__ __ Year ....__ __ __ __	
UF11. HOW OLD WAS (*name*) AT HIS/HER LAST BIRTHDAY? *Record age in completed years.*	Age in completed years...·__	

BIRTH REGISTRATION AND EARLY LEARNING		BR
BR1. DOES (name) HAVE A BIRTH CERTIFICATE? MAY I SEE IT?	Yes, seen .... 1 Yes, not seen .... 2 No .... 3 DK 8	1 —▶BR5
BR2. HAS (name's) BIRTH BEEN NOTIFIED OR REGISTERED WITH THE CIVIL AUTHORITIES?	Yes... 1 No .... 2 DK 8	1 —▶BR5 8 —▶BR4
BR3. WHY IS (name's) 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 (specify) .... 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 (name) 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 (day of the week), EXCLUDING TODAY, ABOUT HOW MANY HOURS DID (name) ATTEND?	No. of hours.. __ __	

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 (*name*):						
For each item: *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)? *Circle all that apply.* BR8A. READ BOOKS, LOOK AT PICTURE BOOKS, OR TELL STORIES TO/WITH (*name*)? BR8D. TAKE (*name*) OUTSIDE THE HOME, COMPOUND, YARD OR ENCLOSURE? BR8E. PLAY WITH (*name*)? BR8F. NAME, COUNT, OR DRAW THINGS TO/WITH (*name*)?		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	

CHILD DEVELOPMENT		CE
CE2. HOW MANY CHILDREN'S BOOKS OR PICTURE BOOKS DO YOU HAVE FOR (name)? If 'none' enter 0	Number of children's books ....0 __ Ten or more books 10	1 —►BR5
CE3. I AM INTERESTED IN LEARNING ABOUT THE THINGS THAT (name) PLAYS WITH WHEN HE/SHE IS AT HOME. WHAT DOES (name) PLAY WITH? DOES HE/SHE PLAY WITH? HOUSEHOLD OBJECTS OR OBJECTS FOUND OUTSIDE (SUCH AS BOWLS OR POTS, STICKS, ROCKS, ANIMAL SHELLS OR LEAVES)? HOMEMADE TOYS (SUCH AS DOLLS, CARS, OR OTHER TOYS MADE AT HOME)? TOYS THAT CAME FROM A SHOP? *If the respondent says "YES" to the categories above, then probe to learn specifically what the child plays with to ascertain the response*		

Layout reconstruction of CE3 response columns:

	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

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. ON HOW MANY DAYS IN THE PAST WEEK WAS (name): LEFT ALONE? LEFT IN THE CARE OF ANOTHER CHILD (THAT IS, SOMEONE LESS THAN 10 YEARS OLD)? *If 'none' enter 0*	Number of days left alone ....__ Number of days left with other child ....__	

CE5. *Check UF11: Age of child 3 or 4?*

[ ] *Age 0, 1 or 2 —► Go to Next Module*

[ ] *Age 3 or 4 —► Continue with CE6*

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

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

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

VITAMIN A		VA
VA1. HAS (*name*) EVER RECEIVED A VITAMIN A CAPSULE (SUPPLEMENT) LIKE THIS ONE? *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)*	Yes .... 1 No .... 2 DK 8	2—▶NEXT MODULE 8—▶NEXT MODULE
VA2. HOW MANY MONTHS AGO DID (*name*) TAKE THE LAST DOSE?	Months ago .... __ __ DK 98	
VA3. WHERE DID (*name*) GET THIS LAST DOSE?	On routine visit to health facility .... 1 Sick child visit to health facility .... 2 National Immunization Day campaign...................... 3 Other (*specify*) .... 6 DK 8	

BREASTFEEDING		BF
BF1. HAS (*name*) EVER BEEN BREASTFED?	Yes...1 No ....2 DK 8	2—▶BF3 8—▶BF3
BF2. IS HE/SHE STILL BEING BREASTFED?	Yes...1 No ....2 DK 8	

BF3. I WOULD LIKE TO ASK YOU ABOUT LIQUIDS THAT (*name*) MAY HAVE HAD YESTERDAY DURING THE DAY OR THE NIGHT. I AM INTERESTED IN WHETHER (name) HAD THE ITEM EVEN IF IT WAS COMBINED WITH OTHER FOODS.
 	
DID (*name*) DRINK OR EAT ANY (*item from list*): YESTERDAY, DURING THE DAY OR NIGHT?
 	
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.
 	
BF3A. VITAMIN OR MINERAL SUPPLEMENTS?
BF3B. ORS (ORAL REHYDRATION SOLUTION)?
BF3C. PLAIN WATER?
BF3D. INFANT FORMULA?
 	
BF3D1. HOW MANY TIMES DID (*name*) HAVE INFANT FORMULA?
 	
BF3E. MILK SUCH AS TINNED, POWDERED, OR FRESH ANIMAL MILK?
 	
BF3E1. HOW MANY TIMES DID (name) DRINK TINNED, POWDERED OR FRESH ANIMAL MILK?
 	
BF3F.JUICE OR JUICE DRINKS?
BF3G. SOUP?
BF3H. ANY OTHER LIQUIDS?
BF3I. YOGURT?
 	
BF3I1. HOW MANY TIMES DID (*name*) HAVE YOGURT?
 	
BF3J. THIN PORRIDGE?
BF3K. SOLID OR SEMI-SOLID (MUSHY) FOOD?
 	
BF3K1. HOW MANY TIMES DID (*name*) EAT SOLID, SEMI-SOLID (MUSHY) FOODS?
	Y N DK
	Vitamin supplements......... 1 2 8
	ORS 1................................. 2 8
	Plain water........................ 1 2 8
	Infant formula 1 2 8
	
	     Number of times..... __ __
	
	Milk 1 2 8
	     Number of times..... __ __
	
	Juice 1 2 8
	Soup 1 2 8
	Any other liquid 1 2 8
	Yogurt 1 2 8
	
	     Number of times..... __ __
	
	Porridge............................ 1 2 8
	Solid or semi-solid food 1 2 8
	
	     Number of times..... __ __
		
		2 OR 8
		—▶BF3E
		
		2 OR 8
		—▶BF3F
		
		2 OR 8
		—▶BF3J
		
		2 OR 8
		—▶BF3L

BF3L. DID (*name*) 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 (*name*) HAD DIARRHOEA IN THE LAST TWO WEEKS, THAT IS, SINCE (day of the week) OF THE WEEK BEFORE LAST? *Diarrhoea is determined as perceived by mother or caretaker, or as three or more loose or watery stools per day, or blood in stool.*	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 (*name*) DRINK ANY OF THE FOLLOWING: *Read each item aloud and record response before proceeding to the next item.* CA2A. A FLUID MADE FROM A SPECIAL PACKET CALLED ORS? CA2B. HOMEMADE SUGAR AND SALT SOLUTION? CA2C. A PRE-PACKAGED ORS FLUID FOR DIARRHOEA?	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	
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?
 	
Probe:
ANYTHING ELSE?
 	
Record all treatments given
	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 (*specify*) 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? *If "less", probe:* 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 (*specify*) 26
	
	Private medical sector
	   Mission hospital/clinic 31
	   Private hospital/clinic.....................................32
	   Nursing/maternity home 33
	   Pharmacy...34
	   Other private medical (*specify*) 36
	
	Mobile clinic 41
	Community health worker 42
	
	Other source
	   Shop 51
	   Traditional practitioner 52
	   Relative/friend...53
	
	Other (*specify*) 96
	
	DK 98	

CA4C. HOW MUCH DID YOU PAY FOR THE (*local name for ORS packet from CA2A*)?	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 (*day of the week*) OF THE WEEK BEFORE LAST?	Yes...1 No ....2 DK 8	2—▶CA12 8—▶CA12

CA6. WHEN (name) HAD AN ILLNESS WITH A COUGH, DID HE/SHE BREATHE FASTER THAN USUAL WITH SHORT, QUICK BREATHS OR HAVE DIFFICULTY BREATHING?	Yes .... 1 No .... 2 DK 8	2—▶CA12 8—▶CA12
CA7. WERE THE SYMPTOMS DUE TO A PROBLEM IN THE CHEST OR A BLOCKED NOSE?	Problem in chest .... 1 Blocked nose.. 2 Both .... 3 Other (specify) .... 6 DK 8	2—▶CA12 6—▶CA12
CA8. DID YOU SEEK ADVICE OR TREATMENT FOR THE ILLNESS OUTSIDE THE HOME?	Yes .... 1 No .... 2 DK 8	2—▶CA12 8—▶CA12

CA9. FROM WHERE DID YOU SEEK CARE?
 	
Probe:
ANYWHERE ELSE?
 	
Circle all providers mentioned, but do NOT prompt with any suggestions.
 	
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.
 	
_____
(Name of place)
	Public Sector
	    Government hospital C
	    Government health center ....D
	    Government dispensary.......................................E
	    Other public (specify)...F
	
	Private medical sector
	    Mission hospital/clinic ....G
	    Private hospital/clinic...H
	    Nursing/maternity home I
	    Pharmacy...J
	    Other private medical (specify) ....K
	
	Mobile clinic L
	Community health worker .... M
	
	Other source
	    Shop ....O
	    Traditional practitioner ....P
	    Relative/friend...Q
	
	Other (specify) X	

CA10. WAS (name) GIVEN MEDICINE TO TREAT THIS ILLNESS?	Yes.. 1 No .... 2 DK 8	2—▶CA12 8—▶CA12
CA11. WHAT MEDICINE WAS (name) GIVEN? *Probe:* ANYTHING ELSE? *Circle all medicines given.*	Antibiotic .... A Paracetamol/Panadol/Acetaminophen .... P Aspirin ....Q Ibupropfen ....R Other (specify) ....X DK ....Z	

CA11A. *Check CA11: Antibiotic given?*

[ ] *Yes.—▶ Continue with CA11B*

[ ] *No.—▶ Go to CA12*

CA11B. WHERE DID YOU GET THE ANTIBIOTIC?
 	
_____
(*Name of place*)
	Public Sector
	    Government hospital 21
	    Government health center 22
	    Government dispensary... 23
	    Other public (*specify*) 26
	
	Private medical sector
	    Mission hospital/clinic 31
	    Private hospital/clinic.. 32
	    Nursing/maternity home 33
	    Pharmacy.. 34
	    Other private medical (*specify*) 36
	
	Mobile clinic 41
	Community health worker 42
	
	Other source
	    Shop 51
	    Traditional practitioner 52
	    Relative/friend.. 53
	
	Other (*specify*) 96
	
	DK 98	

CA11C. HOW MUCH DID YOU PAY FOR THE ANTIBIOTIC?	Shillings ....__ __ __ __ Free .... 9995 DK 9998	
CA12. *Check UF11: Child aged under 3?* [ ] *Yes.* ⸺► *Continue with CA13* [ ] *No.*⸺► *Go to Next Module*		
CA13. THE LAST TIME (*name*) PASSED STOOLS, WHAT WAS DONE TO DISPOSE OF THE STOOLS?	Child used toilet/latrine... 01 Put/rinsed into toilet or latrine .... 02 Put/rinsed into drain or ditch.. 03 Thrown into garbage (solid waste) .... 04 Buried .... 05 Left in the open .... 06 Other (*specify*) .... 96 DK 98	

MALARIA		ML
ML1. IN THE LAST TWO WEEKS, THAT IS, SINCE (*day of the week*) OF THE WEEK BEFORE LAST, HAS (*name*) BEEN ILL WITH A FEVER?	Yes... 1 No .... 2 DK 8	2—▶NEXT MODULE 8—▶NEXT MODULE
ML2. WAS (*name*) SEEN AT A HEALTH FACILITY DURING THIS ILLNESS?	Yes... 1 No .... 2 DK 8	2—▶ML6 8—▶ML6
ML3. DID (name) 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 (name) TAKE THAT WAS PROVIDED OR PRESCRIBED AT THE HEALTH FACILITY?
 	
Probe:
ANYTHING ELSE?
 	
Circle all medicines mentioned.
	Anti-malarials:
	    SP/Fansidar ....A
	    Chloroquine ....B
	    Amodiaquine...C
	    Quinine..D
	    Artemisinin-based combinations ....E
	    Other anti-malarial (*specify*) ....H
	
	Other medications:
	    Paracetamol/Panadol/Acetaminophen...............................P
	    Aspirin..Q
	    Ibuprofen...R
	
	Other (*specify*) X
	DK Z	

ML5. WAS (*name*) 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 (*name*) GIVEN MEDICINE FOR FEVER OR MALARIA DURING THIS ILLNESS?	Yes... 1 No .... 2 DK 8	2—▶ML8 8—▶ML8

ML7. WHAT MEDICINE WAS (*name*) GIVEN?
 	
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.
	Anti-malarials:
	    SP/Fansidar ....A
	    Chloroquine ....B
	    Amodiaquine...C
	    Quinine..D
	    Artemisinin-based combinations ....E
	    Other anti-malarial (*specify*) ....H
	
	Other medications:
	    Paracetamol/Panadol/Acetaminophen...............................P
	    Aspirin..Q
	    Ibuprofen...R
	
	Other (*specify*) X
	DK Z	

ML8. *Check ML4 and ML7: Anti-malarial mentioned (codes A - H)?*		
[ ] *Yes.* ─▸ *Continue with ML9*		
[ ] *No.* ─▸ *Go to Next Module*		

ML9. HOW LONG AFTER THE FEVER STARTED DID (*name*) FIRST TAKE (*name of anti-malarial from ML4 or ML7*)? *If multiple anti-malarials mentioned in ML4 or ML7, name all anti-malarial medicines mentioned.* *Record the code for the day on which the first anti-malarial was given.*	Same day .... 0 Next day .... 1 2 days after the fever... 2 3 days after the fever... 3 4 or more days after the fever .... 4 DK 8	

ML9A. WHERE DID YOU GET THE (name of anti-malarial from ML4 or ML7)?
 	
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).
 	
_____
(*Name of place*)
	Public Sector
	    Government hospital 21
	    Government health center 22
	    Government dispensary..................................... 23
	    Other public (*specify*)...................................... 26
	
	Private medical sector
	    Mission hospital/clinic 31
	    Private hospital/clinic.. 32
	    Nursing/maternity home 33
	    Pharmacy.. 34
	    Other private medical (*specify*) 36
	
	Mobile clinic 41
	Community health worker 42
	
	Other source
	    Shop 51
	    Traditional practitioner 52
	    Relative/friend... 53
	
	Other (*specify*) 96
	
	DK 98	

ML9B. HOW MUCH DID YOU PAY FOR THE (*name of anti-malarial from ML4 or ML7*)? *Refer to the same anti-malarial as in ML9A above*	Shillings .... __ __ __ __ Free .... 9996 DK 9998	

IMMUNIZATION						IM

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.

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) **Write '44' in day column** if card shows that vaccination was given but no date recorded.	Date of Immunization			
	DAY	MONTH	YEAR	

	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? *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*	Yes .... 1 (*Probe for vaccinations and write '66' in the corresponding day column on IM2 to IM8B.*) 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 (*name*) 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 (*name*) 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 (*name*) 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 (*name*) 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 (*name*) 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	

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

UT2. Record the time.	Hour and minutes __ __ : __ __

IM20. *Does another eligible child reside in the household for whom this respondent is mother/caretaker? Check household listing, column HL8.*

[ ] *Yes.* —▶ *End the current questionnaire and then Go to Under-5 Questionnaire to administer the questionnaire for the next eligible child.*

[ ] *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.

ANTHROPOMETRY MODULE		NA
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.*		
AN0A. Measurer's identification code.	Measurer code .... __ __	
AN0B. Result of measurement	Measured... 1 Not present... 2 Refused .... 3 Other (*specify*) 6	2—▸ANS5 3—▸ANS5 6—▸ANS5
AN1. Child's weight	Kilograms (kg) ....[ ] [ ] . [ ]	
AN2. Child's length or height. 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).	Length (cm) Lying down ....1 [ ] [ ] [ ] . [ ] 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, Homa Bay County
Multiple Indicator Cluster Survey
2011