



Bungoma County, Kenya

Multiple Indicator Cluster Survey 2013/14

Final Report

February, 2016



The Bungoma County Multiple Indicator Cluster Survey (MICS) was carried out in 2013/14 by the Population Studies and Research Institute, University of Nairobi, in collaboration with Kenya National Bureau of Statistics, as part of the global MICS programme. Technical support was provided by the United Nations Children’s Fund (UNICEF). UNICEF provided financial support.

The global MICS programme was developed by UNICEF in the 1990s as an international household survey programme to support countries in the collection of internationally comparable data on a wide range of indicators on the situation of children and women. MICS surveys measure key indicators that allow countries to generate data for use in policies and programmes, and to monitor progress towards the Millennium Development Goals (MDGs) and other internationally agreed upon commitments.

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Summary Table of Survey Implementation and the Survey Population, Bungoma County MICS, 2013/14

Survey implementation			
Sample frame	National Sample Survey and Evaluation Programme V (NASSEP V)	Questionnaires	Household Women (age 15-49) Children under-five
Updated	November 2013		
Interviewer training	October 2013	Fieldwork	November 2013 to January 2014
Survey sample			
Households			
Sampled	1,500		
Occupied	1,316		
Interviewed	1,246	Children under-five	
Response rate (Percent)	94.7	Eligible	874
		Mothers/caretakers interviewed	846
		Response rate (Percent)	96.8
Women			
Eligible for interviews	1,373		
Interviewed	1,213		
Response rate (Percent)	88.3		

Survey population			
Average household size	4.8	Percentage of population living in	
Percentage of population under:		Urban areas	45.1
Age 5	15.0	Rural areas	54.9
Age 18	55.2		
Percentage of women age 15-49 years with at least one live birth in the last 2 years	25.6		

Housing characteristics	
Percentage of households with	
Electricity	14.8
Finished floor	36.6
Finished roofing	94.9
Finished walls	29.3
Mean number of persons per room used for sleeping	3.02

Household or personal assets	
Percentage of households that own	
A television	23.0
A refrigerator	3.6
Agricultural land	79.5
Farm animals/livestock	68.9
Percentage of households where at least a member has or owns a	
Mobile phone	81.8
Car or truck	4.3

Summary Table of Findings¹

Multiple Indicator Cluster Surveys (MICS) and Millennium Development Goals (MDG) Indicators, Bungoma County MICS, 2013/14

NUTRITION			
Breastfeeding and infant feeding			
MICS Indicator	Indicator	Description	Value
2.5	Children ever breastfed	Percentage of women with a live birth in the last 2 years who breastfed their last live-born child at any time	97.3
2.6	Early initiation of breastfeeding	Percentage of women with a live birth in the last 2 years who put their last newborn to the breast within one hour of birth	50.8
2.7	Exclusive breastfeeding under 6 months	Percentage of infants under 6 months of age who are exclusively breastfed	43.1
2.8	Predominant breastfeeding under 6 months	Percentage of infants under 6 months of age who received breast milk as the predominant source of nourishment during the previous day	58.5
2.9	Continued breastfeeding at 1 year	Percentage of children age 12-15 months who received breast milk during the previous day	75.3
2.10	Continued breastfeeding at 2 years	Percentage of children age 20-23 months who received breast milk during the previous day	40.2
2.11	Median duration of breastfeeding	The age in months when 50 percent of children age 0-35 months did not receive breast milk during the previous day	20.8
2.12	Age-appropriate breastfeeding	Percentage of children age 0-23 months appropriately fed during the previous day	63.5
2.13	Introduction of solid, semi-solid or soft foods	Percentage of infants age 6-8 months who received solid, semi-solid or soft foods during the previous day	81.4
2.14	Milk feeding frequency for non-breastfed children	Percentage of non-breastfed children age 6-23 months who received at least 2 milk feedings during the previous day	(25.2)
2.15	Minimum meal frequency	Percentage of children age 6-23 months who received solid, semi-solid and soft foods (plus milk feeds for non-breastfed children) the minimum number of times or more during the previous day	49.2
2.16	Minimum dietary diversity	Percentage of children age 6-23 months who received foods from 4 or more food groups during the previous day	41.8
2.17a 2.17b	Minimum acceptable diet	(a) Percentage of breastfed children age 6-23 months who had at least the minimum dietary diversity and the minimum meal frequency during the previous day (b) Percentage of non-breastfed children age 6-23 months who received at least 2 milk feedings and had at least the minimum dietary diversity not including milk feeds and the minimum meal frequency during the previous day	23.9 (16.3)
2.18	Bottle feeding	Percentage of children age 0-23 months who were fed with a bottle during the previous day	15.6
Salt iodization			
2.19	Iodized salt consumption	Percentage of households with salt testing 15 parts per million or more of iodate	94.4
Low-birthweight			
2.20	Low-birthweight infants	Percentage of most recent live births in the last 2 years weighing below 2,500 grams at birth	5.3

¹ See Appendix G for a detailed description of MICS indicators

2.21	Infants weighed at birth	Percentage of most recent live births in the last 2 years who were weighed at birth	47.3
() Figures that are based on 25-49 unweighted cases			

CHILD HEALTH

Vaccinations

MICS Indicator	Indicator	Description	Value
3.1	Tuberculosis immunization coverage	Percentage of children age 12-23 months who received BCG vaccine by their first birthday	95.7
3.2	Polio immunization coverage	Percentage of children age 12-23 months who received the third dose of OPV vaccine (OPV3) by their first birthday	77.5
3.3	Diphtheria, pertussis and tetanus (DPT) immunization coverage	Percentage of children age 12-23 months who received the third dose of DPT vaccine (DPT3) by their first birthday	87.7
3.4	MDG 4.3 Measles immunization coverage	Percentage of children age 12-23 months who received measles vaccine by their first birthday	91.8
3.5	Hepatitis B immunization coverage	Percentage of children age 12-23 months who received the third dose of Hepatitis B vaccine (HepB3) by their first birthday	81.1
3.6	Haemophilus influenzae type B (Hib) immunization coverage	Percentage of children age 12-23 months who received the third dose of Hib vaccine (Hib3) by their first birthday	83.9
3.8	Full immunization coverage	Percentage of children age 12-23 months who received all vaccinations recommended in the national immunization schedule by their first birthday	56.3

Tetanus toxoid

3.9	Neonatal tetanus protection	Percentage of women age 15-49 years with a live birth in the last 2 years who were given at least two doses of tetanus toxoid vaccine within the appropriate interval prior to the most recent birth	53.8
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Diarrhoea

-	Children with diarrhoea	Percentage of children under age 5 with diarrhoea in the last 2 weeks	11.9
3.10	Care-seeking for diarrhoea	Percentage of children under age 5 with diarrhoea in the last 2 weeks for whom advice or treatment was sought from a health facility or provider	46.2
3.11	Diarrhoea treatment with oral rehydration salts (ORS) and zinc	Percentage of children under age 5 with diarrhoea in the last 2 weeks who received ORS and zinc	13.1
3.12	Diarrhoea treatment with oral rehydration therapy (ORT) and continued feeding	Percentage of children under age 5 with diarrhoea in the last 2 weeks who received ORT (ORS packet, pre-packaged ORS fluid, recommended homemade fluid or increased fluids) and continued feeding during the episode of diarrhoea	67.6

Acute Respiratory Infection (ARI) symptoms

-	Children with ARI symptoms	Percentage of children under age 5 with ARI symptoms in the last 2 weeks	3.8
3.13	Care-seeking for children with ARI symptoms	Percentage of children under age 5 with ARI symptoms in the last 2 weeks for whom advice or treatment was sought from a health facility or provider	(51.5)
3.14	Antibiotic treatment for children with ARI symptoms	Percentage of children under age 5 with ARI symptoms in the last 2 weeks who received antibiotics	(53.0)

Solid fuel use			
3.15	Use of solid fuels for cooking	Percentage of household members in households that use solid fuels as the primary source of domestic energy to cook	96.1
Malaria / Fever			
MICS Indicator	Indicator	Description	Value
-	Children with fever	Percentage of children under age 5 with fever in the last 2 weeks	19.8
3.16a	Household availability of insecticide-treated nets (ITNs)	Percentage of households with (a) at least one ITN	78.0
3.16b		(b) at least one ITN for every two people	44.5
3.17a	Household vector control	Percentage of households (a) with at least one ITN or that have been sprayed by IRS in the last 12 months	78.4
3.17b		(b) with at least one ITN for every two people or that have been sprayed by IRS in the last 12 months	45.4
3.18	MDG 6.7	Children under age 5 who slept under an ITN	62.9
3.19		Population that slept under an ITN	57.0
3.20		Care-seeking for fever	53.8
3.21		Malaria diagnostics usage	29.2
3.22	MDG 6.8	Anti-malarial treatment of children under age 5	45.8
3.23		Treatment with Artemisinin-based Combination Therapy (ACT) among children who received anti-malarial treatment	50.4
3.24		Pregnant women who slept under an ITN	70.3
3.25		Intermittent preventive treatment for malaria during pregnancy	22.9

WATER AND SANITATION			
MICS Indicator	Indicator	Description	Value
4.1	MDG 7.8	Use of improved drinking water sources	86.7
4.2		Water treatment	68.9
4.3	MDG 7.9	Use of improved sanitation	49.7
4.4		Safe disposal of child's faeces	89.5
4.5		Place for handwashing	5.4

WATER AND SANITATION

MICS Indicator	Indicator	Description	Value
4.6	Availability of soap or other cleansing agent	Percentage of households with soap or other cleansing agent	70.5

REPRODUCTIVE HEALTH

Contraception and unmet need

MICS Indicator	Indicator	Description	Value
-	Total fertility rate	Total fertility rate for women age 15-49 years	4.5
5.1	MDG 5.4 Adolescent birth rate	Age-specific fertility rate for women age 15-19 years	66
5.2	Early childbearing	Percentage of women age 20-24 years who had at least one live birth before age 18	29.8
5.3	MDG 5.3 Contraceptive prevalence rate	Percentage 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	54.4
5.4	MDG 5.6 Unmet need	Percentage 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	22.5

Maternal and newborn health

5.5a	MDG 5.5	Antenatal care coverage	Percentage of women age 15-49 years with a live birth in the last 2 years who were attended during their last pregnancy that led to a live birth (a) at least once by skilled health personnel (b) at least four times by any provider	91.3
5.5b	MDG 5.5			50.3
5.6		Content of antenatal care	Percentage of women age 15-49 years with a live birth in the last 2 years who had their blood pressure measured and gave urine and blood samples during the last pregnancy that led to a live birth	80.0
5.7	MDG 5.2	Skilled attendant at delivery	Percentage of women age 15-49 years with a live birth in the last 2 years who were attended by skilled health personnel during their most recent live birth	50.7
5.8		Institutional deliveries	Percentage of women age 15-49 years with a live birth in the last 2 years whose most recent live birth was delivered in a health facility	46.3
5.9		Caesarean section	Percentage of women age 15-49 years whose most recent live birth in the last 2 years was delivered by caesarean section	2.8

Post-natal health checks

5.10		Post-partum stay in health facility	Percentage of women age 15-49 years who stayed in the health facility for 12 hours or more after the delivery of their most recent live birth in the last 2 years	67.9
5.11		Post-natal health check for the newborn	Percentage of last live births in the last 2 years who received a health check while in facility or at home following delivery, or a post-natal care visit within 2 days after delivery	62.9
5.12		Post-natal health check for the mother	Percentage of women age 15-49 years who received a health check while in facility or at home following delivery, or a post-natal care visit within 2 days after delivery of their most recent live birth in the last 2 years	60.4

CHILD DEVELOPMENT			
MICS Indicator	Indicator	Description	Value
6.1	Attendance to early childhood education	Percentage of children age 36-59 months who are attending an early childhood education programme	36.8
6.2	Support for learning	Percentage 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 last 3 days	73.7
6.3	Father's support for learning	Percentage of children age 36-59 months whose biological father has engaged in four or more activities to promote learning and school readiness in the last 3 days	6.8
6.4	Mother's support for learning	Percentage of children age 36-59 months whose biological mother has engaged in four or more activities to promote learning and school readiness in the last 3 days	20.7
6.5	Availability of children's books	Percentage of children under age 5 who have three or more children's books	4.4
6.6	Availability of playthings	Percentage of children under age 5 who play with two or more types of playthings	54.9
6.7	Inadequate care	Percentage 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 last week	44.2
6.8	Early child development index	Percentage of children age 36-59 months who are developmentally on track in at least three of the following four domains: literacy-numeracy, physical, social-emotional, and learning	72.1

LITERACY AND EDUCATION^A			
MICS Indicator	Indicator	Description	Value
7.1	MDG 2.3 Literacy rate among young women	Percentage of young women age 15-24 years who are able to read a short simple statement about everyday life or who attended secondary or higher education	85.1
7.2	School readiness	Percentage of children in first grade of primary school who attended pre-school during the previous school year	42.7
7.3	Net intake rate in primary education	Percentage of children of school-entry age who enter the first grade of primary school	61.9
7.4	MDG 2.1 Primary school net attendance ratio (adjusted)	Percentage of children of primary school age currently attending primary or secondary school	89.1
7.S1	Primary school net attendance ratio (adjusted)	Percentage of children of primary school age currently attending primary (primary 1-8; national) or secondary school	90.7
7.5	Secondary school net attendance ratio (adjusted)	Percentage of children of secondary school age currently attending secondary school or higher	57.5
7.S2	Secondary school net attendance ratio (adjusted)	Percentage of children of secondary school age currently attending secondary school (national) or higher	31.8
7.6	MDG 2.2 Children reaching last grade of primary	Percentage of children entering the first grade of primary school who eventually reach last grade	98.3
7.S3	Children reaching last grade of primary	Percentage of children entering the first grade of primary school who eventually reach last grade (primary 8; national)	95.7
7.7	Primary completion rate	Number of children attending the last grade of primary school (excluding repeaters) divided by number of children of primary school completion age (age appropriate to final grade of primary school)	132.2

7.54		Primary completion rate	Number of children attending the last grade of primary school (excluding repeaters) divided by number of children of primary school completion age (age appropriate to final grade of primary school) (national)	107.8
7.8		Transition rate to secondary school	Number of children attending the last grade of primary school during the previous school year who are in the first grade of secondary school during the current school year divided by number of children attending the last grade of primary school during the previous school year	94.4
7.55		Transition rate to secondary school	Number of children attending the last grade of primary school during the previous school year who are in the first grade of secondary school during the current school year divided by number of children attending the last grade of primary school during the previous school year (national)	51.9
7.9	MDG 3.1	Gender parity index (primary school)	Primary school net attendance ratio (adjusted) for girls divided by primary school net attendance ratio (adjusted) for boys	0.99
7.56		Gender parity index (primary school)	Primary school net attendance ratio (adjusted) for girls divided by primary school net attendance ratio (adjusted) for boys (national)	1.00
7.10	MDG 3.1	Gender parity index (secondary school)	Secondary school net attendance ratio (adjusted) for girls divided by secondary school net attendance ratio (adjusted) for boys	1.22
7.57		Gender parity index (secondary school)	Secondary school net attendance ratio (adjusted) for girls divided by secondary school net attendance ratio (adjusted) for boys (national)	1.22

^A For Kenya, the International Standard Classification of Education (ISCED) 1997 classifies Primary 7 and 8 as Lower Secondary education. The indicators labelled ISCED calculates Primary School indicators based on Primary 1-6 only, whereas Primary 7 and 8 are included in Secondary School indicators. Those indicators labelled national and marked with S are based on the national education system, which includes Primary 7-8 in Primary School indicators.

CHILD PROTECTION

Birth registration

MICS Indicator	Indicator	Description	Value
8.1	Birth registration	Percentage of children under age 5 whose births are reported registered	62.2

Child labour

8.2	Child labour	Percentage of children age 5-17 years who are involved in child labour	54.4
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Child discipline

8.3	Violent discipline	Percentage of children age 1-14 years who experienced psychological aggression or physical punishment during the last one month	81.6
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Early marriage and polygyny

8.4	Marriage before age 15	Percentage of women age 15-49 years who were first married or in union before age 15	5.2
8.5	Marriage before age 18	Percentage of women age 20-49 years who were first married or in union before age 18	30.1
8.6	Young people age 15-19 years currently married or in union	Percentage of young women age 15-19 years who are married or in union	8.1
8.7	Polygyny	Percentage of women age 15-49 years who are in a polygynous union	14.6

8.8a	Spousal age difference	Percentage of young women who are married or in union and whose spouse is 10 or more years older,	(*)
8.8b		(a) among women age 15-19 years, (b) among women age 20-24 years	22.8
Female genital mutilation/cutting			
8.9	Approval for female genital mutilation/cutting (FGM/C)	Percentage of women age 15-49 years who state that FGM/C should be continued	1.7
8.10	Prevalence of FGM/C among women	Percentage of women age 15-49 years who report to have undergone any form of FGM/C	2.1
8.11	Prevalence of FGM/C among girls	Percentage of daughters age 0-14 years who have undergone any form of FGM/C, as reported by mothers age 15-49 years	0.0
Attitudes towards domestic violence			
8.12	Attitudes towards domestic violence	Percentage of women age 15-49 years who state that a husband 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	42.3
Children's living arrangements			
8.13	Children's living arrangements	Percentage of children age 0-17 years living with neither biological parent	16.5
8.14	Prevalence of children with one or both parents dead	Percentage of children age 0-17 years with one or both biological parents dead	9.6
8.15	Children with at least one parent living abroad	Percentage of children 0-17 years with at least one biological parent living abroad	0.2
(*) Figures that are based on less than 25 unweighted cases			

HIV/AIDS AND SEXUAL BEHAVIOUR

HIV/AIDS knowledge and attitudes

MICS Indicator	Indicator	Description	Value
-	Have heard of AIDS	Percentage of women age 15-49 years who have heard of AIDS	99.2
9.1	MDG 6.3 Knowledge about HIV prevention among young women	Percentage of young women age 15-24 years who correctly identify ways of preventing the sexual transmission of HIV, and who reject major misconceptions about HIV transmission	48.5
9.2	Knowledge of mother-to-child transmission of HIV	Percentage of women age 15-49 years who correctly identify all three means of mother-to-child transmission of HIV	48.7
9.3	Accepting attitudes towards women living with HIV	Percentage of women age 15-49 years expressing accepting attitudes on all four questions toward women living with HIV	23.0
HIV testing			
9.4	Women who know where to be tested for HIV	Percentage of women age 15-49 years who state knowledge of a place to be tested for HIV	91.0
9.5	Women who have been tested for HIV and know the results	Percentage of women age 15-49 years who have been tested for HIV in the last 12 months and who know their results	41.4

9.6	Sexually active young women who have been tested for HIV and know the results	Percentage of young women age 15-24 years who have had sex in the last 12 months, who have been tested for HIV in the last 12 months and who know their results	48.0
9.7	HIV counselling during antenatal care	Percentage of women age 15-49 years who had a live birth in the last 2 years and received antenatal care during the pregnancy of their most recent birth, reporting that they received counselling on HIV during antenatal care	75.8
9.8	HIV testing during antenatal care	Percentage of women age 15-49 years who had a live birth in the last 2 years and received antenatal care during the pregnancy of their most recent birth, reporting that they were offered and accepted an HIV test during antenatal care and received their results	82.7
Sexual behaviour			
9.9	Young women who have never had sex	Percentage of never married young women age 15-24 years who have never had sex	69.0
9.10	Sex before age 15 among young women	Percentage of young women age 15-24 years who had sexual intercourse before age 15	10.0
9.11	Age-mixing among sexual partners	Percentage of women age 15-24 years who had sex in the last 12 months with a partner who was 10 or more years older	19.0
9.12	Multiple sexual partnerships	Percentage of women age 15-49 years who had sexual intercourse with more than one partner in the last 12 months	2.3
9.13	Condom use at last sex among women with multiple sexual partnerships	Percentage of women age 15-49 years who report having 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	(*)
9.14	Sex with non-regular partners	Percentage of sexually active young women age 15-24 years who had sex with a non-marital, non-cohabitating partner in the last 12 months	13.9
9.15	MDG 6.2 Condom use with non-regular partners	Percentage of young women age 15-24 years reporting the use of a condom during the last sexual intercourse with a non-marital, non-cohabitating sex partner in the last 12 months	55.1
(*) Figures that are based on less than 25 unweighted cases			

ACCESS TO MASS MEDIA AND ICT

Access to mass media

MICS Indicator	Indicator	Description	Value
10.1	Exposure to mass media	Percentage of women age 15-49 years who, at least once a week, read a newspaper or magazine, listen to the radio, and watch television	8.5

Use of information/communication technology

10.2	Use of computers	Percentage of young women age 15-24 years who used a computer during the last 12 months	12.8
10.3	Use of internet	Percentage of young women age 15-24 years who used the internet during the last 12 months	8.3

SUBJECTIVE WELL-BEING			
MICS Indicator	Indicator	Description	Value
11.1	Life satisfaction	Percentage of young women age 15-24 years who are very or somewhat satisfied with their life, overall	88.1
11.2	Happiness	Percentage of young women age 15-24 years who are very or somewhat happy	90.3
11.3	Perception of a better life	Percentage of young women age 15-24 years whose life improved during the last one year, and who expect that their life will be better after one year	71.5

TOBACCO AND ALCOHOL USE			
Tobacco use			
MICS Indicator	Indicator	Description	Value
12.1	Tobacco use	Percentage of women age 15-49 years who smoked cigarettes, or used smoked or smokeless tobacco products at any time during the last one month	0.3
12.2	Smoking before age 15	Percentage of women age 15-49 years who smoked a whole cigarette before age 15	0.1
Alcohol use			
12.3	Use of alcohol	Percentage of women age 15-49 years who had at least one alcoholic drink at any time during the last one month	10.5
12.4	Use of alcohol before age 15	Percentage of women age 15-49 years who had at least one alcoholic drink before age 15	7.7

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List of Abbreviations

ACRWC	African Charter on the Rights and Welfare of the Child
ACT	Artemisinin-based Combination therapy
AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
ARI	Acute Respiratory Infection
ART	Anti-retroviral Therapy
ASFR	Age-specific Fertility Rate
BCC	Behaviour Change Communication
BCG	Bacillus Calmette-Guérin (Tuberculosis)
CARMMA	Campaign on Accelerated Reduction of Maternal Mortality in Africa
CBR	Crude Birth Rate
CEDAW	Convention on the Elimination of all forms of Discrimination Against Women
CRC	Convention on the rights of the Child
CSP	Country Strategy Paper
CSPro	Census and Survey Processing System
DOMC	Division of Malaria Control
DPT	Diphtheria Pertussis Tetanus
DVI	Division of Vaccine and Immunisation
EA	Enumeration area
ECD	Early Childhood Development
ECDE	Early Childhood Development and Education
ECDI	Early Child Development Index
EFA	Education for All
EHP	Essential Health Package
EMTCT	Elimination of Mother-to-Child Transmission of HIV
EPI	Expanded Programme on Immunization
FCTC	Framework Convention on Tobacco Control
FGM/C	Female genital mutilation/cutting
FNSP	Food and Nutrition Security Policy
GAPPD	Global Action Plan for the Prevention and Control of Pneumonia and Diarrhoea
GARPR	Global AIDS Response Progress Reporting
GFR	General Fertility Rate
GIPA	Greater Involvement of People Living with HIV and AIDS
GMAP	Global Malaria Action Plan
GPI	Gender Parity Index
GVAP	Global Vaccine Action Plan
HIV	Human Immunodeficiency Virus
ICPD	International Conference on Population and Development
ICT	Information and Communications Technology
IDD	Iodine Deficiency Disorders
ILO	International Labour Organization
IPT	Intermittent Preventive Treatment
IPTp	Intermittent Preventive Treatment of Pregnant women
IRS	Indoor Residual Spraying
ITN	Insecticide Treated Net
IUD	Intrauterine Device
JMP	Joint Monitoring Programme

KASF	Kenya AIDS Strategic Framework
KCPE	Kenya Certificate of Primary Education
KCSE	Kenya Certificate of Secondary Education
KDHS	Kenya Demographic and Health Survey
KEBS	Kenya Bureau of Standards
KEPI	Kenya Expanded Programme on Immunization
KHPF	Kenya Health Policy Framework
KNASP	Kenya National AIDS Strategic Plan
KNBS	Kenya National Bureau of Statistics
LAM	Lactational Amenorrhea Method
MDG	Millennium Development Goals
MICS	Multiple Indicator Cluster Survey
MICS5	Fifth global round of Multiple Indicator Clusters Surveys programme
MoH	Ministry of Health
MTP	Medium Term Plans
NAR	Net Attendance Rate
NASSEP V	National Sample Survey and Evaluation Programme V
NHSSP II	National Health Sector Strategic Plan II
NNAP	National Nutrition Action Plan
NTFIC	National Tobacco Free Initiative Committee
ORS	Oral Rehydration Salts
ORT	Oral rehydration treatment
PMI	Presidents Malaria Initiative
PMTC	Prevention of Mother to Child Transmission
PNC	Post-natal Care
PNHC	Post-natal Health Checks
PPM	Parts Per Million
PSRI	Population Studies and Research Institute, University of Nairobi
RHF	Recommended Home Fluid
SP	Sulfadoxine-Pyrimethamine
SPSS	Statistical Package for Social Sciences
STIs	Sexually Transmitted Infections
SUN	Scaling Up Nutrition
TFR	Total Fertility Rate
UNAIDS	United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNGASS	United Nations General Assembly Special Session on HIV/AIDS
UNICEF	United Nations Children's Fund
WFFC	World Fit for Children
WHO	World Health Organization

Foreword

The 2013/14 Multiple Indicator Cluster Survey (MICS5) covering Bungoma, Kakamega and Turkana Counties are part of the fifth global round of Multiple Indicator Cluster Survey series conducted worldwide to provide up-to-date information on the situation of children and women. This survey was conducted in collaboration with the Population Studies and Research Institute (PSRI) of the University of Nairobi, the Kenya National Bureau of Statistics (KNBS) and United Nations Children's Fund (UNICEF).

The results of this survey provide requisite baseline information that can be used to facilitate evidence-based planning, budgeting and programming by policymakers and stakeholders at the county levels. The reports will go a long way in encouraging increased demand for use of statistics by policy makers at devolved levels; ensure that resources at both county and national levels are used most effectively through well-planned projects/programmes that will benefit especially the women and children of the three counties.

MICS5 was conducted at county level to provide comprehensive and disaggregated data to partly fill the existing data gaps at this level. This survey is the second of its kind to be conducted at the devolved level after the MICS4 was conducted in the six counties of the Nyanza region in 2011. MICS3 was conducted in all the 13 districts of the then Eastern Province in 2008.

The MICS5 results are critical in gauging milestones achieved in the field of education, nutrition, child development, and health for women and children in the three counties and in evaluating the various health based policies that the Government has formulated over the years towards achieving the national welfare objectives.

More specifically, the 2013/14 MICS5 data is critical in informing the future planning for the three counties, especially in view of the new constitutional dispensation and Vision 2030. It is anticipated that MICS5 will supplement the data collected during 2014 Kenya Demographic and Health Survey (KDHS). In addition, the information collected will inform strategic communication for social and behaviour change interventions by Government and partners including UNICEF. Furthermore, the data will contribute to the improvement of data and monitoring systems in the three counties.

The survey laid emphasis on quality in every step of the process, right from the design of the tools, training of interviewers, monitoring of data collection, and the whole process of data processing. The MICS5 has much to offer to the health and family planning professionals, government planners, NGOs, researchers, and gender specialists. The potential users are numerous. It is, therefore, our appeal that the findings of MICS5 be put into good use so as to improve the well-being of people in the counties; to prepare reasonable and realistic objectives for county projects; to draw attention to critical problems and inequities; and to determine budgetary priorities.

This report is a culmination of concerted efforts of various organizations and individuals. I have the greatest pleasure to give credit to the technical and financial assistance from UNICEF. I wish to appreciate the organizations, especially Population Studies and Research Institute of the University of Nairobi, that have contributed so much time, energy, and expertise to providing these findings and results. In addition I commend the hard work and dedication of Kenya National Bureau of Statistics (KNBS) staff in assisting to plan and implement this Survey. I thank the interviewers, editors, supervisors, who traversed the three counties, knocking on doors and spending hours talking to household respondents to generate the data. They faced a variety of challenges from occasional vehicle breakdowns, bad terrains, changing weather to basic accommodation. I wish to thank the

respondents who generously and voluntarily provided the information. Without them, there would have been no report to talk about. Much gratitude goes to the data processing specialists and data editors for dedicating their time and expertise to put together quality data. All of them did a tremendous job.

Zachary Mwangi
Director General, Kenya National Bureau of Statistics

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Kenya implemented the Multiple Indicator Cluster Survey (MICS5) in 2013/2014 in the three counties of Bungoma, Kakamega and Turkana as part of Global MICS round five. MICS is an international household survey programme developed by UNICEF. 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. In Kenya, this information is important to guide the planning and implementation of new development plans targeting the new administrative County-levels of governance.

The successful implementation of the MICS5 was due to the great support and dedication of the partners. Kenya would like to thank the following collaborating organizations:

- United Nations Children’s Fund
- Kenya National Bureau of Statistics

We do appreciate the financial support provided by the United Nations Children’s Fund. Special thanks go to the technical experts from the Kenya National Bureau of Statistics and Population Studies and Research Institute (PSRI) who ensured that the survey was implemented efficiently and effectively to produce quality results. These experts included officers from the collaborating institutions. They exhibited high degree of professionalism during the preparatory work prior and during the implementation stage as well as during the data analysis and report writing. We also thank the UNICEF Regional Office for East and Southern Africa and UNICEF Kenya Country Office for the technical support provided to Kenya during MICS5. We especially recognize and appreciate the support of Dr. Paul Mpuga, Dr. Monica Chizororo, Mr. Nicholas Oloo, Dr. Robert Ndugwa, Dr John Ndegwa Wagai and Dr. Nyasha Madzingira.

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Prof. Murungaru Kimani
Director
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Executive Summary

The Bungoma County Multiple Indicator Survey (MICS) is a representative sample survey designed to provide estimates for a large number of indicators on the situation of children and women at the county level, for urban and rural areas. The survey used two-stage stratified cluster sampling where the first stage selected 50 clusters from the KNBS fifth National Sample Survey and Evaluation Program (NASSEP V) household-based master sampling frame using equal probability selection method (EPSEM). The second stage randomly selected a uniform sample of 30 households in each cluster from a list of households in the cluster using systematic random sampling method. The survey was implemented by the University of Nairobi through Population studies and Research Institute in collaboration with Kenya National Bureau of Statistics (KNBS) with support from UNICEF Kenya.

Information was collected from a total of 1,246 households representing 95 percent response rate. The composition of these households was 5,983 household members comprising 2,797 males and 3,186 females. The mean household size was 4.8 persons. About 48 percent of the sampled households' population is below 15 years, 48 percent are between age 15-64 years and four percent are age 65 years and above.

Due to data quality issues, data relating to mortality and anthropometric measures were not analyzed and reported. Anthropometric data suffered digit preference for both weight and height, while for mortality, deaths especially among children under-five years were under reported. KDHS 2014 had similar shortcomings.

Nutrition

Weight at birth is a good indicator not only of a mother's health and nutritional status but also the new-born's chances for survival, growth, long-term health and psychosocial development. The survey findings show that 47 percent of the live births in the two years preceding the survey were weighed at birth, and approximately five percent of infants weighed less than 2,500 grams at birth. The prevalence of low birth weight varied slightly by urban-rural residence, birth order, and by mother's education.

Ninety-seven percent of the children were ever breastfed and 51 percent of babies were breastfed for the first time within one hour of birth. Approximately 43 percent of children age less than six months were exclusively breastfed. By age 12-15 months, 75 percent of children continued to be breastfed and by age 20-23 months, only 40 percent were still being breastfed. Among children under age 3 years, the median duration of any breastfeeding was 21 months. Percentage of children who were age appropriately breastfed during the previous day of the survey was 60 percent for 0-23 months. The overall assessment using the indicator of minimum acceptable diet revealed that only 22 percent were benefitting from a diet sufficient in both diversity and frequency (18 percent males and 26 percent females). Percentage of children age 0-23 months who were fed with a bottle with a nipple during the previous day of the survey were 16 percent and this practice was more prevalent for children 6-11 months old, residing in urban areas and whose mothers had attained secondary/higher education. More than 90 percent of households in both urban (96 percent) and rural areas (93 percent) were found to be using adequately iodized salt.

Child Health

Immunization plays a key part in reducing preventable child diseases and mortality. Percentage of children who were fully vaccinated by their first birthday was 56 percent. Overall, 64 percent of children age 12-23 months were fully immunized against vaccine preventable childhood diseases. The percentage of children fully vaccinated was higher for rural areas (71 percent) than for urban areas (59 percent). About 12 percent of children under five years of age were reported to have had diarrhoea in the two weeks preceding the survey, and a health facility or provider was seen in 46 percent of cases. Approximately 83 percent of children with diarrhoea received one or more of the recommended home treatments (i.e. were treated with ORS or any recommended homemade fluid), while 14 percent received zinc. In addition, 13 percent received ORS and zinc. Seventy-eight percent of households had at least one Insecticide-Treated Net (ITN) and 63 percent of children under-5 years slept under an ITN the night preceding the survey.

Water and Sanitation

Safe drinking water is a basic necessity for good health. Unsafe drinking water can be a significant determinant of diseases such as cholera, typhoid, and schistosomiasis. Drinking water can also be contaminated with chemical and physical contaminants with harmful effects on human health. In addition to preventing disease, improved 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.

In Bungoma, 87 percent of the population uses an improved source of drinking water. Sixty-nine percent of household members in households using unimproved drinking water sources are using an appropriate water treatment method. In the majority of households (78 percent), an adult female usually collected drinking water when the source was not on the premises. Sixty-seven percent of the population are living in households using improved sanitation facilities. In 90 percent of the cases, children's stool was disposed of safely. The percentage of households where a place for hand washing was observed is 15 percent. Eighty percent of the households had no specific place for hand washing in the dwelling, yard, or plot.

Reproductive Health

Empowering women and adolescent girls to exercise their sexual and reproductive health rights is a necessary condition for sustainable development. The findings show that age specific fertility rate and birth rate for the three years preceding the survey fertility is 66 births per 1,000 women among adolescents age 15-19 years. Fourteen percent of women age 15-19 years had begun childbearing, three percent were pregnant with their first child, and two percent have had a live birth before age 15. Four percent of women age 15-49 years have had a live birth before age 15. The proportion of women with a live birth before age 15 is four percent in urban areas and three percent in rural areas. Contraception by women currently married or in union is 54 percent and a third use injectables.

Unmet need for family planning was 23 percent. Almost nine in ten mothers received ANC more than once and half of the mothers received ANC at least four times. Among those women who had a live birth during the last two years preceding the survey, 80 percent had blood pressure checked, urine and blood samples taken. Fifty-one percent of births occurring in the two years preceding the MICS were delivered by skilled personnel. About 46 percent of births were delivered in a health facility. Overall, 68 percent of women who gave birth in a health facility stayed 12 hours or more in the facility after delivery. Sixty-three percent of newborns received a health check following birth while in a health facility or at home and 60 percent of all mothers received a post-natal health check.

Early Childhood Development

In Bungoma County, about 37 percent of children age 36-59 months are attending an organised early childhood education programme. Seventy-four percent of children age 36-59 months have an adult household member engaged in four or more activities that promote learning and school readiness. The father's involvement in such activities was low, with only seven percent of children age 36-59 months with fathers involved in four or more activities. Mother's engagement in four or more activities that promote learning during the three days preceding the survey was higher at 21 percent. Availability of children's books for those age 0-59 months was low, with only seven percent of children living in households where at least three children's books were present. Fifty-five percent of children age 0-59 months had two or more types of playthings to play with in their homes. A total of 44 percent of children were left with inadequate care, either by being left alone or in the care of another child.

Child development index is calculated as the percentage of children who are developmentally on target in at least three of the four component domains such as language-cognitive, physical, social-emotional, and approaches to learning. In Bungoma County, 72 percent of children age 36-59 months were developmentally on track.

Literacy and Education

Youth Literacy Rate as a measure of the effectiveness of the primary education system is often seen as a proxy measure of social progress and economic achievement. Forty-three percent of children who were attending the first grade of primary school at the time of the survey were attending pre-primary school the previous year. About 85 percent of young women age 15-24 were literate. Among those with primary school as their highest level of education, 75 percent were able to read the statement shown to them. Eight percent of children age 6-13 were out of school, with a low attendance rate of 70 percent for children age 6, who appeared to be starting late in school. Thirteen percent of the children of secondary school age were out of school. The majority of all children starting grade one were expected to reach grade 8 (96 percent). Only 52 percent of the children who were attending the last grade of primary school in the school year prior to the survey were found to be attending the first grade of secondary school at the time of the survey, suggesting a low transition rate from primary to secondary. The gender parity index (GPI) for primary school was 1.00, suggesting boys and girls of primary school age attended primary education at the same rate. The GPI for secondary education was 1.22, indicating a higher secondary school attendance rate among girls of secondary age than among boys of the same age.

Child Protection

In Bungoma County, the births of 40 percent of children under-five years are registered. Data shows that only 33 percent of the mothers/caretakers of the children under-five years of age whose births are not registered know how to register a child's birth.

Total child labour for Bungoma County is 54 percent (60 percent in rural areas and 47 percent in urban areas). Overall, the proportion of children working under hazardous conditions in Bungoma County is 44 percent (51 percent in rural areas and 36 percent in urban areas). Eighty-two percent of children age 1-14 years are subjected to at least one form of psychological aggression or physical punishment by household members. And 65 percent of respondents to the household questionnaire believe that physical punishment is a necessary part of child-rearing.

Among women age 15-49 years, five percent are married before age 15 while among women age 20-49 years, six percent are married before age 15 while 30 percent are married before age 18. Fifteen

percent of women age 15-49 years are in polygamous unions. Eight percent of young women age 15-19 years are currently married. Among currently married/in union women age 20-24 years, about one in five are married/in union with a man who is older by ten years or more (23 percent). The cases for women age 15-19 years currently married/in union were too few to be analysed by the age of the husband/partner.

Two percent of women had some form of female genital mutilation. As to whether the practice should be continued or discontinued, two percent of women think it should be continued while 91 percent believe it should be discontinued.

Overall, 42 percent of women in Bungoma County feel that a husband/partner is justified in hitting or beating his wife in at least one of the five situations (when a wife neglects the children, or if she demonstrates her autonomy, or arguing with him, or refuses to have sex with the husband, or burns the food).

About 61 percent of children age 0-17 years in Bungoma County live with both their parents. Seventeen percent of children live with neither of their biological parents. Less than one percent of children age 0-17 have one or both parents living abroad.

HIV/AIDS and Sexual Behaviour

Almost all women age 15-49 years (99 percent) in Bungoma County have knowledge of AIDS. Seventy-one percent know of the two main ways of preventing HIV transmission, with 82 percent knowing having only one faithful uninfected partner and 81 percent know using a condom every time as main ways of preventing HIV transmission. Overall, 49 percent of women have comprehensive knowledge of HIV prevention methods and transmission which is higher in urban (54 percent) than rural areas (44 percent) and also varies with education and wealth status. In total, 64 percent of women rejected the two most common misconceptions that HIV can be transmitted through mosquito bites (82 percent), and by sharing food with someone with HIV (84 percent) and know that a healthy-looking person can be HIV-positive, and about 93 percent and 82 percent of women know that supernatural means and mosquito bites cannot transmit HIV, respectively. Ninety-three percent of women age 15-49 years know that HIV can be transmitted from mother to child by at least one of the three means; during pregnancy, delivery and breastfeeding while 49 percent of women know all three ways of mother-to-child transmission. Ninety-eight percent of women age 15-49 years who have heard of AIDS agreed with at least one accepting statement. The most common accepting attitude is willingness to care for a family member with AIDS in own home (93 percent). More educated women tend to have a more accepting attitude than those with no education. Ninety-one percent of women age 15-49 years know of a place where to be tested, while 74 percent have been tested. Forty-seven percent of women know the result of their most recent test.

The proportion of women age 15-49 years that had been tested within the last 12 months preceding the survey is 48 percent, while those who had been tested within the last 12 months and know the result is 41 percent. Three quarters of women age 15-49 years with a live birth in the last two years preceding the survey received HIV counselling during ANC, 83 percent were offered an HIV test and were tested for HIV; and 76 percent received HIV counselling, offered an HIV test, accepted and received the results. Two percent of women 15-49 years of age reported that they had sex with more than one partner in the last 12 months with a mean number of lifetime sexual partners as 2.0. Forty-eight percent of young women have comprehensive knowledge. Young women who know of three

means of HIV transmission from mother-to-child are 44 percent and 86 percent have knowledge of a place to get tested. About 48 percent of young women age 15-24, who were sexually active, had been tested for HIV in the last 12 months and know the result. The proportion is high among young women with secondary/higher education (64 percent) compared with those with primary education (35 percent). Overall, 10 percent of young women age 15-24 years reported ever having sex before age 15. Further, two percent of young women had sex with more than one partner in the last 12 months. Only 55 percent of women used a condom the last time they had sex. About 19 percent of women age 15-24 years who had sex in the last 12 months, had sex with a man 10 or more years older.

Access to Mass Media and Use of Information/Communication Technology

About 17 percent of women age 15-49 years in Bungoma County read a newspaper or magazine, 71 percent listen to the radio, and 23 percent watch television at least once a week. Overall, 24 percent do not have regular exposure to any of the three media, while 76 percent are exposed to at least one, and nine percent to all the three types of media on a weekly basis. Women with higher education are four times more likely to have been exposed to all three types of media than women with primary education. Similarly, women from the richest households are more likely to have been exposed to all three types of media (28 percent) than women from the poorest households (1 percent).

Overall, nine percent of young women age 15-24 years ever used the internet, while 8 percent used the internet during the last 12 months. The proportion of young women who used the internet more frequently, at least once a week during the last month, was smaller, at six percent. Both computer and internet use during the last 12 months were more widespread among women age 20-24 years compared to women age 15-19 years. Use of a computer and the internet is also strongly associated with education and wealth. Only about one percent of women with primary education reported using a computer during the last 12 months, while about a third of the women with higher education used a computer. Similarly, higher utilisation of the internet is observed among young women in the richest households (28 percent) compared the poorest households (3 percent).

Subjective Well-being

Young women are the most satisfied with their health (97 percent), the way they look (96 percent), and friendships and treatment by others (91 percent for each domain). The percentage of women age 15-24 years who are very or somewhat satisfied with school is 93 percent, with their job is 85 percent, and with their income is 73 percent. In Bungoma County, 88 percent of women age 15-24 years are satisfied with their life. The proportion of women who are satisfied with life is higher in urban areas (94 percent) than in rural areas (83 percent). The proportions do not vary much by marital status and educational level.

About 90 percent of women age 15-24 years are very or somewhat happy. The percentage of women age 15-24 years who were very happy or somewhat happy is 93 percent for those age 15-19 years while it is 87 percent for those women age 20-24 years. The percentage for women in urban areas is 93 percent while it is 88 percent for those in rural areas. Women who had never married/in union are very happy or somewhat happy at 92 percent and those ever married/in union were at 86 percent. The proportion of women age 15-24 years who believe that their lives improved during the last one year and who expect that their lives would get better after one year, was 72 percent. There are no major differences among the various background characteristics.

Tobacco and Alcohol Use

In Bungoma County, ever use of any tobacco products among women is two percent, while less than one percent smoked cigarettes, or used smoked or smokeless tobacco products on one or more days during the last one month preceding the survey. The results show that only about one woman age 15-49 years in a thousand smoked a cigarette for the first time before age 15.

About 11 percent of women age 15-49 years had at least one drink of alcohol on one or more days during the last month preceding the survey while eight percent have had at least one alcoholic drink before the age of 15 years. The proportion who had an alcoholic drink in the last month preceding the survey increased with age, ranging from five percent for the age group 15-19 to 19 percent for the age group 40-44, and decreasing to 12 percent for the 45-49 age group. A higher proportion of women in rural areas (12 percent) had at least one alcoholic drink before age 15 compared to those who resided in urban areas (3 percent). Similarly, women in rural areas (13 percent) were more likely than those in urban areas (8 percent) to have had at least one alcoholic drink at any time during the last one month preceding the survey.

1. Introduction

Bungoma County is one of the 47 counties in Kenya. Bungoma County is located in the western part of the country and constitutes nine constituencies (Mt Elgon, Sirisia, Kabuchai, Bumula, Kanduyi, Webuye East, Webuye West, Kimilili and Tongaren). The county had an estimated population of 1,375,063 in 2013².

1.1 Background

This report is based on the Bungoma County Multiple Indicator Cluster Survey (MICS), conducted in 2013/14 by the Population Studies and Research Institute, University of Nairobi, in collaboration with Kenya National Bureau of Statistics, as part of the global MICS programme. The survey provides statistically sound and internationally comparable data essential for developing evidence-based policies and programmes, and for monitoring progress toward national goals and global commitments. Among these global commitments are those emanating from the World Fit for Children Declaration and Plan of Action (2002)³, the goals of the United Nations General Assembly Special Session on HIV/AIDS (2001)⁴, the Education for All Declaration (2000)⁵ and the Millennium Development Goals (MDGs) 2000.⁶

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 of the World Fit for Children (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.”

²Kenya National Bureau of Statistics, 2013. Statistical Abstract 2013.

³A World Fit for Children. Resolution adopted by the United Nations General Assembly 10 May 2002.

⁴United Nations General Assembly Special Session on HIV/AIDS 2001. Summary of the Declaration of Commitment on HIV/AIDS 25-27 June 2001, New York

⁵<http://www.unesco.org/new/en/education/themes/leading-the-international-agenda/education-for-all/>

⁶http://www.who.int/topics/millennium_development_goals/en/

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

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

Kenya’s GDP has grown by an annual average of 4 percent in the past five years. In 2013, Kenya adopted its second five-year Medium Term Plan (MTP II 2013-17) to implement its ‘Vision 2030’, which represents a solid strategic framework to transform Kenya into a newly industrializing, middle-income country by 2030.⁷ The African Development Bank’s Country Strategy Paper (CSP) 2014-18 for Kenya supports the country’s ambitions and addresses its main developmental challenges by promoting job creation as the overarching objective.

The Bungoma County MICS results are expected to form part of the baseline data for the post-2015 agenda. The survey findings are also expected to contribute to the evidence base of several important initiatives, including Committing to Child Survival: **A Promise Renewed**⁷, a global movement to end child deaths from preventable causes, and the accountability framework proposed by the **Commission on Information and Accountability for the Global Strategy for Women's and Children's Health**.⁸

This final report presents the results of the indicators and topics covered in the survey. There are 14 chapters presented as follows:

- Chapter 1: An introductory note to the Bungoma County MICS Report;
- Chapter 2: Sample and survey methodology
- Chapter 3: Sample coverage and characteristics of households and respondents
- Chapter 4: Child nutrition
- Chapter 5: Child health
- Chapter 6: Water and sanitation
- Chapter 7: Reproductive health
- Chapter 8: Early childhood development
- Chapter 9: Literacy and education
- Chapter 10: Child protection
- Chapter 11: HIV, AIDS and sexual behaviour
- Chapter 12: Mass media and Information and Communication Technology (ICT)
- Chapter 13: Subjective well-being
- Chapter 14: Tobacco and alcohol use

⁷United Nations Children’s Fund (UNICEF), September 2014. Committing to Child Survival: A Promise Renewed - Progress Report 2014.

⁸WHO. 2014. Implementing the Commission on Information and Accountability Recommendations 2014: Progress Report Accountability for Women’s and Children’s Health.

1.2 Survey Objectives

The 2013/14 Bungoma County MICS has as its primary objectives to:

- Provide up-to-date information for assessing the situation of children and women in Bungoma County;
- Generate data for the critical assessment of the progress made in various areas, and to put additional efforts in those areas that require more attention;
- 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;
- Collect disaggregated data for the identification of disparities, to allow for evidence based policy-making aimed at social inclusion of the most vulnerable;
- Contribute to the generation of baseline data for the post-2015 agenda;
- Validate data from other sources and the results of focused interventions; and
- Contribute to the improvement of data and monitoring systems in Kenya and to strengthen technical expertise in the design, implementation, and analysis of such systems.

2. Sample and Survey Methodology

Chapter Two presents the survey sample design and methodology, content for the three questionnaires used in the survey, the interviewer training process, fieldwork, and data management and processing.

2.1 Sample Design

The sample for the Bungoma County MICS, 2013/14 was designed to provide estimates for a large number of indicators on the situation of children and women at the county level. The urban and rural areas within the county were the main sampling strata. The sample was selected in two stages: cluster and household. The survey utilized the fifth National Sample Survey and Evaluation Program (NASSEP V) household-based master sampling frame which is created and maintained by the Kenya National Bureau of Statistics (KNBS). The primary sampling unit for the frame is a cluster, which constitutes one or more EAs, with an average of 100 households.

For the NASSEP V master sample the EAs were selected within each stratum using systematic sampling with probabilities proportion to size (PPS). For the MICS, within each stratum a specified number of clusters was selected from the master sample using an equal probability selection method (EPSEM). After a household listing was carried out within the selected clusters, a systematic sample of 30 households was drawn in each sampled cluster. In total, 50 clusters were selected for the survey in Bungoma County. The sample was stratified by urban and rural areas, and was not self-weighting. All selected clusters were visited during fieldwork. For reporting county level results, sample weights are used.

A more detailed description of the sample design is provided in Appendix C.

2.2 Questionnaires

A set of three questionnaires was used in the survey: 1) a household questionnaire which was administered to the household head or any other responsible member of the household; 2) a questionnaire for individual women administered in each household to all women age 15-49 years; 3) an under-5 questionnaire, administered to mothers (or caretakers) for all children under 5 years living in the household.

The questionnaires included the following modules:

The Household Questionnaire included the following modules:

- List of Household Members
- Education
- Child Labour
- Child Discipline
- Household Characteristics
- Insecticide Treated Nets
- Indoor Residual Spraying
- Water and Sanitation

- Handwashing
- Salt Iodization

The Questionnaire for Individual Women age 15-49 years included the following modules:

- Woman's Background
- Access to Mass Media and Use of Information/Communication Technology
- Fertility/Birth History
- Desire for Last Birth
- Maternal and Newborn Health
- Post-natal Health Checks
- Illness Symptoms
- Contraception
- Unmet Need
- Female Genital Mutilation/Cutting
- Attitudes Toward Domestic Violence
- Marriage/Union
- Sexual Behaviour
- HIV/AIDS
- Tobacco and Alcohol Use
- Life Satisfaction

The Questionnaire for Children Under5 was administered to mothers (or caretakers) of children under 5 years of age⁹ 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
- Immunization
- Breastfeeding and Dietary Intake
- Care of Illness
- Anthropometry

Due to data quality issues, data relating to mortality and anthropometric measures were not analyzed and reported. Anthropometric data suffered digit preference for both weight and height, while for mortality, deaths especially among children under-five years were under reported. The recommendation to remove the Mortality Chapter and the anthropometric measures section from the Nutrition Chapter was adopted at the final reports validation workshop organized by KNBS, PSRI and UNICEF. KDHS 2014 had similar shortcomings. The DQ tables are included in the report for reference. The MICS data set can be accessed and evaluated by researchers for further analysis. The survey team, KNBS and the Population Studies and Research Institute will review the data in detail to identify challenges encountered and to address them before the next round of surveys.

⁹ The terms "children under 5", "children age 0-4 years", and "children age 0-59 months" are used interchangeably in this report.

The questionnaires are based on the MICS5 model questionnaire.¹⁰ From the MICS5 model English version, the questionnaires were customised and translated into Kiswahili and Luhya sub dialect and were pre-tested in four clusters (rural and urban) in Trans Nzoia County. Based on the results of the pre-test, modifications were made to the wording and translation of the questionnaires. A copy of the Bungoma County MICS questionnaires is provided in Appendix F.

In addition to administering of questionnaires, fieldwork teams tested the salt used for cooking in the households for iodine, observed the place for handwashing, and measured the weights and heights of children under-5 years of age. Details and findings of these observations and measurements are provided in the respective sections of the report.

2.3 Training and Fieldwork

Training for the fieldwork was conducted in Kitale town for 14 days from 24th October to 6th November, 2013. Training included lectures on interviewing techniques and the contents of the questionnaires, and mock interviews between trainees to gain practice in asking questions. Facilitators used a variety of methods which included PowerPoint presentations, illustrations on flip charts, question and answer, case studies, group work and group discussions. Towards the end of the training period, trainees spent two days practising the research tools by interviewing respondents in selected urban and rural clusters in Trans Nzoia County.

Fieldwork began in November 2013 and concluded in February 2014. The survey team was divided into two groups. Each group comprised of 5 interviewers, one driver, one editor, one measurer and a supervisor.

2.4 Data Processing

CSPRO software, Version 5.0 running on desktop computers was used for data entry. Data entry was done by a trained team of 14 data entry operators, one Archivist/System administrator and one data entry supervisor. For quality assurance purposes, all questionnaires were double-entered and internal consistency checks performed. Procedures and standard programs developed under the global MICS programme and adapted to the Bungoma County MICS questionnaire were used throughout. Data processing began simultaneously with data collection in November 2013 and was completed in February 2014. Data were analysed using the Statistical Package for Social Sciences (SPSS) software, Version 21. Model syntax and tabulation plans developed by UNICEF were customized and used for this purpose.

¹⁰ The model MICS5 questionnaires can be found at http://www.childinfo.org/mics5_questionnaire.html

3. Sample Coverage and the Characteristics of Households and Respondents

This chapter presents results of the sample coverage; characteristics of households and female respondents age 15-49 years and children under-five years of age. The chapter also provides information on the housing characteristics, asset ownership and household wealth quintiles.

3.1 Sample Coverage

Table HH1 shows the results of the households, women's and under-five interviews. Of the 1,500 households selected for the sample, 1,316 were found to be occupied. Of these, 1,246 were successfully interviewed giving a household response rate of 95 percent. A total of 1,373 women age 15-49 years were eligible for interview out of whom 1,213 were successfully interviewed, yielding a response rate of 88 percent.

There were 874 eligible children under age five years in the interviewed households out of whom 846 interviews were completed for them by their mothers/caretakers or giving a response rate of 97 percent.

Overall response rates of 84 percent and 92 percent were calculated for the individual interviews of women and under-5s, respectively, as shown in Table HH.1 below. About 97 percent of households in rural areas were interviewed compared to 93 percent in urban areas. Similarly, the overall response rate was slightly higher for women in rural areas (85 percent) than for those in urban areas (82 percent). For children under-five years, the overall response rate was 95 percent in rural areas and 88 percent in urban areas.

Table HH.1: Results of household, women's, and under-5 interviews			
Number of households, women, and children under-5 by interview results, and household, women's and under-5's response rates, Bungoma County MICS, 2013/14			
	Total	Area	
		Urban	Rural
Households			
Sampled	1,500	780	720
Occupied	1,316	671	645
Interviewed	1,246	623	623
Household response rate	94.7	92.8	96.6
Women			
Eligible	1,373	641	732
Interviewed	1,213	568	645
Women's response rate	88.3	88.6	88.1
Women's overall response rate	83.6	82.3	85.1
Children under 5			
Eligible	874	392	482
Mothers/caretakers interviewed	846	372	474
Under-5's response rate	96.8	94.9	98.3
Under-5's overall response rate	91.6	88.1	95.0

3.2 Characteristics of Households

The weighted age and sex distribution of the survey population is provided in Table HH.2. The distribution has been used to generate the population pyramid in Figure HH.1. Data by single year age distribution of the population is in Appendix F, Table DQ.1. In the 1,246 households successfully interviewed in the survey, 5,983 household members were listed. Of these, 2,797 (47 percent) are males and 3,186 (53 percent) are females. About 48 percent of the population comprises of children below 15 years of age. The youth age 15-24 years account for 18 percent of the population.

Table HH.2: Age distribution of household population by sex

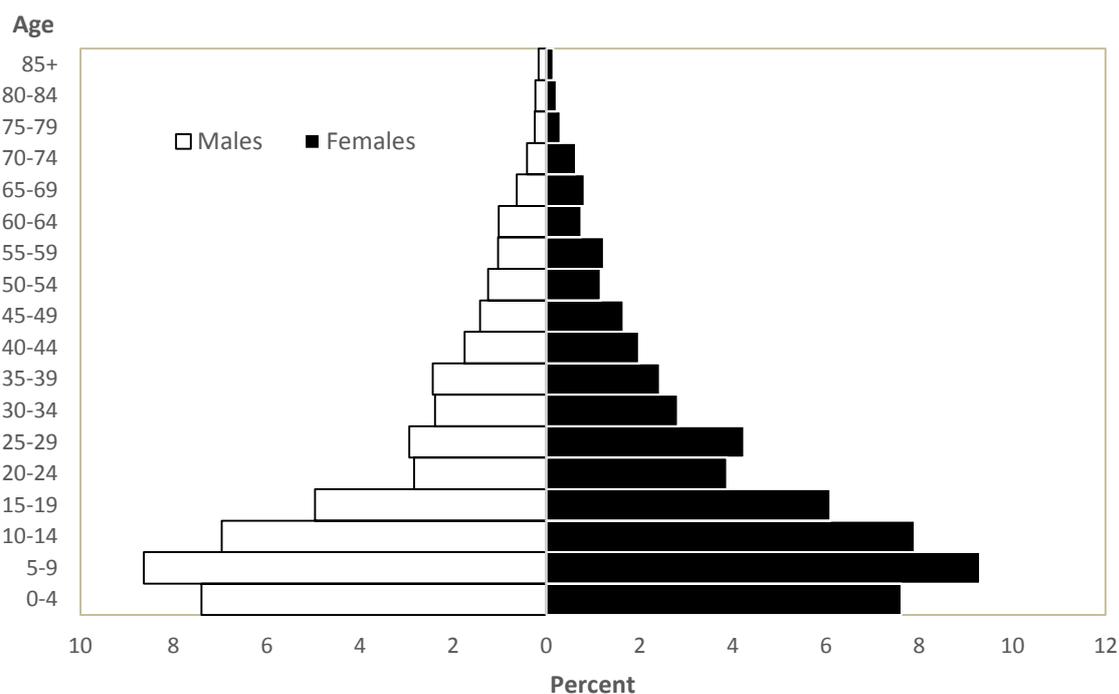
Percent and frequency distribution of the household population by five-year age groups, dependency age groups, and by child (age 0-17 years) and adult populations (age 18 or more), by sex, Bungoma County MICS, 2013/14

	Total		Males		Females	
	Number	Percent	Number	Percent	Number	Percent
Total	5,983	100.0	2,797	100.0	3,186	100.0
Age						
0-4	898	15.0	443	15.8	456	14.3
5-9	1,074	18.0	517	18.5	557	17.5
10-14	890	14.9	417	14.9	473	14.9
15-19	662	11.1	297	10.6	365	11.5
20-24	402	6.7	170	6.1	232	7.3
25-29	430	7.2	176	6.3	254	8.0
30-34	311	5.2	143	5.1	169	5.3
35-39	292	4.9	146	5.2	146	4.6
40-44	223	3.7	105	3.7	119	3.7
45-49	183	3.1	85	3.0	99	3.1
50-54	145	2.4	75	2.7	70	2.2
55-59	136	2.3	62	2.2	74	2.3
60-64	106		1.8	2.2	45	1.4
65-69	87	1.5	38	1.3	49	1.5
70-74	63	1.1	25	0.9	38	1.2
75-79	33	0.6	15	0.5	18	0.6
80-84	27	0.4	14	0.5	13	0.4
85+	19	0.3	10	0.3	9	0.3
Missing/DK	1	0.0	0	0.0	1	0.0
Dependency age groups						
0-14	2,863	47.8	1,377	49.2	1,486	46.6
15-64	2,892	48.3	1,319	47.2	1,572	49.4
65+	228	3.8	101	3.6	127	4.0
Missing/DK	1	0.0	0	0.0	1	0.0
Child and adult populations						
Children age 0-17 years	3,303	55.2	1,578	56.4	1,725	54.1
Adults age 18+ years	2,680	44.8	1,219	43.6	1,461	45.8
Missing/DK	1	0.0	0	0.0	1	0.0

The population pyramid (Figure HH.1) for Bungoma County is broad based. However, the pattern exhibited is slightly different from the national population pyramid obtained during the 2009 Housing and Population Census. The national population pyramid from the 2009 census was smooth and showed a higher percentage of the population in the 0-4 year age group than in the 5-9 year age group, which is what is expected. On the contrary, the population pyramid from the MICS5 shows a notably smaller percentage of the population in the 0-4 year age group than in the 5-9 year age group. This may be attributed partly to interviewers’ bias (out transference) in order to reduce the number of under-five questionnaires to administer. There is also a noticeable drop in the age group 20-24 years, which may be an indication of out-migration of the population from the county to other areas either for further education or for employment opportunities.

In the Bungoma County, forty-eight percent are in the 15 to 64 year age group while four percent are age 65 years and above (Table HH.2). Fifty-five percent of the population is under the age of 18. The percentage of males under the age of 18 years is 56 percent, compared to 54 percent of females.

Figure HH.1: Age and sex distribution of household population, Bungoma County MICS, 2013/14



Note: 1 household members with missing age and/or sex is excluded

Tables HH.3, HH.4 and HH.5 provide basic information on the households, female respondents’ age 15-49 years, and children under-5 years. Both unweighted and weighted numbers are presented. Such information is essential for the interpretation of findings presented later in the report and provides background information on the representativeness of the survey sample. The rest of the tables in this report are presented only with weighted numbers.¹¹

¹¹ See Appendix C: Sample Design, for more details on sample weights.

Table HH.3 provides basic background information on the households, including the sex of the household head, area, number of household members, education of household head, and ethnicity of the household head. 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 total number of households are equal, since sample weights were normalized.¹¹ The table shows the weighted mean household size of 4.8 persons estimated by the survey. Most households in Bungoma County are headed by males (68 percent) compared to only 32 percent of those headed by females. Forty-nine percent of the households are in an urban area, with 51 percent in rural areas. The results further indicate that most of the household heads have either primary education (45 percent) or secondary/higher education (44 percent). About a third of the households (29 percent) have household sizes of 4-5 persons, 22 percent have 2-3 persons, 22 percent have 6-7 persons, 12 percent have 1 person, 10 percent have 8-9 persons and five percent have 10 or more persons. Most of the heads of households (88 percent) comprises of the Luhya ethnic group.

Table HH.3: Household composition			
Percent and frequency distribution of households by selected characteristics, Bungoma County MICS, 2013/14			
	Weighted percent	Number of households	
		Weighted	Unweighted
Total	100.0	1,246	1,246
Sex of household head			
Male	68.0	847	860
Female	32.0	399	386
Area			
Urban	49.2	614	623
Rural	50.8	632	623
Number of household members			
1	11.6	145	150
2	9.2	114	114
3	13.2	165	165
4	14.7	183	187
5	14.5	180	181
6	12.2	152	149
7	9.7	121	112
8	6.6	82	84
9	3.3	41	43
10+	5.1	63	61
Education of household head			
None	9.9	123	114
Primary	45.3	565	564
Secondary+	44.4	553	564
Missing/DK	0.4	5	4
Ethnicity of household head			
Luhya	87.6	1,091	1,022
Other ethnic group	12.4	154	223
Missing/DK ¹²	0.0	0	1
Mean household size	4.8	1,246	1,246

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

Tables HH.4 and HH.5 provide information on the background characteristics of female respondents 15-49 years of age and children under-5 years respectively. In the two tables, the total numbers of weighted and unweighted observations are equal, since sample weights have been normalized (standardized).¹¹ In addition to providing useful information on the background characteristics of women, and children under-5 years, 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 provides background characteristics of female respondents, age 15-49 years. The table

¹² Since there is only 1 household and 1 child for whom information on ethnicity is missing, these cases will not be shown in subsequent tables (except HH5 and HH7).

includes information on the distribution of women according to area, age, marital/union status, motherhood status, births in last two years, education¹³, wealth index quintiles^{14, 15}, and ethnicity of the household head.

More than half of the women interviewed (54 percent) reside in rural areas while 46 percent are in urban areas. Disaggregation of the data by age of the woman shows that 24 percent of the women are age 15-19 years, 16 percent are age 20-24 years, and 18 percent are in the 25-29 years age category. The data further indicates that fifty-seven percent of the women interviewed are currently married/in union, while a third of the respondents (33 percent) have never married.

Of all women age 15-49 years in Bungoma, 71 percent had ever given birth, including 26 percent who gave birth in the two years preceding the survey. A higher proportion of 45 percent of women had never given birth in the last two years. The majority of women have either primary education (55 percent) or secondary/higher education (43 percent).

¹³ Throughout this report, unless otherwise stated, “education” refers to highest educational level ever attended by the respondent when it is used as a background variable.

¹⁴ The wealth index is a composite indicator of wealth. To construct the wealth index, principal components analysis is 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 generate weights (factor scores) for each of the items used. First, initial factor scores are calculated for the total sample. Then, separate factor scores are calculated for households in urban and rural areas. Finally, the urban and rural factor scores are regressed on the initial factor scores to obtain the combined, final factor scores for the total sample. This is carried out to minimize the urban bias in the wealth index values.

Each household in the total sample is then assigned a wealth score based on the assets owned by that household and on the final factor scores obtained as described above. The survey household population is then ranked according to the wealth score of the household they are living in, and is finally divided into 5 equal parts (quintiles) from lowest (poorest) to highest (richest).

In Bungoma County MICS, the following assets were used in these calculations: radio, television, non-mobile telephone, refrigerator, agricultural land, farm animals/livestock, watch, mobile telephone, bicycle, motorcycle or scooter, animal-drawn cart, car or truck, boat with a motor, and ownership of dwelling.

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; Rutstein, SO and Johnson, K. 2004. *The DHS Wealth Index*. DHS Comparative Reports No. 6; and Rutstein, SO. 2008. *The DHS Wealth Index: Approaches for Rural and Urban Areas*. DHS Working Papers No. 60.

¹⁵ When describing survey results by wealth quintiles, appropriate terminology is used when referring to individual household members, such as for instance “women in the richest population quintile”, which is used interchangeably with “women in the wealthiest survey population”, “women living in households in the richest population wealth quintile”, and similar.

Table HH.4: Women's background characteristics			
Percent and frequency distribution of women age 15-49 years by selected background characteristics, Bungoma County MICS, 2013/14			
	Weighted percent	Number of women	
		Weighted	Unweighted
Total	100.0	1,213	1,213
Area			
Urban	46.4	563	568
Rural	53.6	650	645
Age			
15-19	24.4	296	286
20-24	15.7	191	197
25-29	18.3	222	233
30-34	13.2	161	153
35-39	11.7	142	144
40-44	9.0	110	103
45-49	7.6	92	97
Marital/Union status			
Currently married/in union	57.2	694	698
Widowed	3.0	37	39
Divorced	2.2	27	26
Separated	4.2	51	48
Never married/in union	33.3	404	402
Motherhood and recent births			
Never gave birth	29.1	352	356
Ever gave birth	70.9	861	857
Gave birth in last two years	25.6	311	304
No birth in last two years	45.3	550	553
Education			
None	2.3	28	27
Primary	54.6	662	636
Secondary+	43.0	522	550
Wealth index quintile			
Poorest	16.3	197	205
Second	18.7	227	192
Middle	19.7	240	225
Fourth	21.7	263	271
Richest	23.5	285	320
Ethnicity of household head			
Luhya	89.5	1,086	1,010
Other ethnic group	10.5	127	203

In households where there were children under the age of five years, the mothers/caretakers were interviewed. The background characteristics of children under-5 years are presented in Table HH.5. These include the distribution of children by several attributes: sex, area, age in months, respondent type, mother's (or caretaker's) education, wealth, and ethnicity.

The proportion of male and female children under-5 years was almost the same (49 and 51 percent, respectively). Fifty-six percent of children under-5 years reside in rural areas, while 45 percent are in

urban areas. A quarter of the children are age 36-47 months. The women who responded to the questions about the child under-5 years (89 percent) are mothers of the children compared to only 11 percent of caretakers. Ninety-six percent of the women interviewed have either primary or secondary/higher education. About a quarter (24 percent) of the children are in the poorest wealth quintile. About 90 percent of households are headed by Luhya.

Table HH.5: Under-5's background characteristics			
Percent and frequency distribution of children under five years of age by selected characteristics, Bungoma County MICS, 2013/14			
	Weighted percent	Number of under-5 children	
		Weighted	Unweighted
Total	100.0	846	846
Sex			
Male	48.9	414	427
Female	51.1	432	419
Area			
Urban	44.5	376	372
Rural	55.5	470	474
Age			
0-5 months	9.9	83	80
6-11 months	9.9	84	84
12-23 months	17.9	152	153
24-35 months	18.9	160	168
36-47 months	25.4	215	209
48-59 months	18.0	152	152
Respondent to the under-5 questionnaire			
Mother	89.2	754	751
Other primary caretaker	10.8	92	95
Mother's education^a			
None	4.0	34	32
Primary	60.8	514	503
Secondary+	35.2	298	311
Wealth index quintile			
Poorest	23.6	199	210
Second	21.8	184	163
Middle	19.2	162	146
Fourth	18.5	157	165
Richest	16.9	143	162
Ethnicity of household head			
Luhya	90.0	762	698
Other ethnic group	9.9	84	147
Missing/DK	0.1	0	1

^a In this table and throughout the report, mother's education refers to educational attainment of mothers as well as caretakers of children under 5, who are the respondents to the under-5 questionnaire if the mother is deceased or is living elsewhere.

3.4 Housing characteristics, asset ownership, and wealth quintiles

Tables HH.6, HH.7 and HH.8 provide results on household characteristics and assets in connection to household wealth. Table HH.6 presents characteristics of housing, disaggregated by area and region, distributed by whether the dwelling has electricity, the main materials of the flooring, roof, and exterior walls, as well as the number of rooms used for sleeping.

Fifteen percent of the households have electricity (20 percent urban and 10 percent rural areas). Sixty-three percent have natural floors¹⁶, while 37 percent have a finished floor¹⁷. Ninety-five percent of the households have finished roofing.¹⁸ While 52 percent of households have rudimentary walls¹⁹, 18 percent have natural walls²⁰ and 29 percent have finished walls.²¹ Data was also collected on the number of sleeping rooms and number of persons sleeping in one room. The mean number of persons per sleeping room is 3.

¹⁶ Natural flooring – earth/sand or dung

¹⁷ Finished floor - Parquet or polished wood, vinyl or asphalt strips, ceramic tiles, cement or carpet

¹⁸ Finished roofing - Metal/Tin, wood, calamine/cement fibre, ceramic tiles, cement, or roofing shingles

¹⁹ Rudimentary walls - Bamboo with mud, stone with mud, uncovered adobe, plywood, cardboard, or reused wood

²⁰ Natural walls - No walls, cane /palm / trunks or dirt.

²¹ Finished walls – Cement, stone with lime / cement, bricks, cement blocks, covered adobe or wood planks / shingles.

Additional definitions for housing characteristics (Table HH.6) are in Appendix G

Table HH.6: Housing characteristics			
Percent distribution of households by selected housing characteristics, according to area of residence and regions, Bungoma County MICS, 2013/14			
	Total	Area	
		Urban	Rural
Total	100.0	100.0	100.0
Electricity			
Yes	14.8	19.8	10.0
No	85.2	80.2	90.0
Flooring			
Natural floor	63.2	53.4	72.7
Rudimentary floor	0.1	0.0	0.1
Finished floor	36.6	46.4	27.1
Other	0.0	0.0	0.0
Missing/DK	0.1	0.2	0.0
Roof			
Natural roofing	5.0	1.2	8.7
Rudimentary roofing	0.0	0.0	0.1
Finished roofing	94.9	98.8	91.1
Other	0.1	0.0	0.1
Exterior walls			
Natural walls	18.4	18.6	18.2
Rudimentary walls	52.3	43.9	60.4
Finished walls	29.3	37.4	21.4
Other	0.1	0.1	0.1
Rooms used for sleeping			
1	42.2	45.3	39.1
2	38.1	39.0	37.1
3 or more	14.6	11.9	17.1
Missing/DK	5.2	3.8	6.6
Number of households	1,246	614	632
Mean number of persons per room used for sleeping	3.02	2.83	3.21

In Table HH.7, households are distributed according to ownership of assets by households and by individual household members. This also includes ownership of dwelling unit. Seventy percent of the households own a radio (69 in urban areas and 71 in rural areas) while 23 percent own a television set. Eighty percent of households own agricultural land while 69 percent own farm animals/livestock.

About eighty-two percent of household members own a mobile phone, 43 percent a bicycle, 38 percent a bank account, 22 percent own a watch. About three quarters (76 percent) of the dwelling units are owned by a household member. Ownership is higher in rural areas (87 percent) than urban areas (64 percent).

Table HH.7: Household and personal assets			
Percentage of households by ownership of selected household and personal assets, and percent distribution by ownership of dwelling, according to area of residence and regions, Bungoma County MICS, 2013/14			
	Total	Area	
		Urban	Rural
Total	100.0	100.0	100.0
Percentage of households that own a			
Radio	70.3	69.2	71.4
Television	23.0	26.0	20.1
Non-mobile phone	1.8	0.8	2.6
Refrigerator	3.6	3.8	3.3
Solar Panel	1.9	1.9	1.9
Chair	1.0	1.1	1.0
Sofa Set	1.5	1.5	1.5
Table	1.1	1.1	1.1
Cupboard	1.5	1.5	1.5
Bed	1.0	1.1	1.0
Clock	1.8	1.8	1.8
Camera	2.0	2.0	2.0
Computer	2.0	2.0	2.0
Percentage of households that own			
Agricultural land	79.5	72.7	86.1
Farm animals/Livestock	68.9	59.4	78.1
Percentage of households where at least one member owns or has a			
Watch	22.0	22.4	21.5
Mobile telephone	81.8	83.5	80.1
Bicycle	43.3	36.8	49.5
Motorcycle or scooter	8.7	7.9	9.5
Animal-drawn cart	2.3	1.4	3.1
Car or truck	4.3	3.4	5.2
Boat with a motor	0.0	0.0	0.0
Bank account	38.2	37.9	38.5
Ownership of dwelling			
Owned by a household member	75.7	63.7	87.4
Not owned	24.3	36.3	12.6
Rented	23.2	35.0	11.6
Other	1.1	1.3	0.9
Number of households	1,246	614	632

Table HH.8 shows how the household populations in urban and rural areas are distributed according to household wealth quintiles. Fewer households in urban areas (53 percent) are in the poorest to middle wealth quintiles compared to households in rural areas (66 percent).

Table HH.8: Wealth quintiles

Percent distribution of the household population by wealth index quintile, according to area of residence and regions,
Bungoma County MICS, 2013/14

	Wealth index quintile					Total	Number of household members
	Poorest	Second	Middle	Fourth	Richest		
Total	20.0	20.0	19.9	20.0	20.0	100.0	5,983
Area							
Urban	18.7	16.6	17.7	22.1	24.8	100.0	2,697
Rural	21.0	22.8	21.7	18.4	16.1	100.0	3,286

4. Nutrition

About half of Kenya's estimated 38.5 million people are poor, and some 7.5 million people live in extreme poverty, while over 10 million people suffer from chronic food insecurity and poor nutrition. Children are undernourished and micronutrient deficiencies are widespread.^{22, 23}

The Government of Kenya is strongly committed to reducing hunger and malnutrition. Policies and strategies were developed to guide the nutrition interventions and activities in the country. These include the Food and Nutrition Security Policy (FNSP) 2011, National Nutrition Action Plan (NNAP) 2012-2017 and Kenya Health Strategic Plan 2008-2012. Most of these interventions were part of Scaling Up Nutrition (SUN) actions that were implemented globally to accelerate efforts towards achieving MDG 4 and 5. The NNAP is aligned to the government's Medium Term Plans (MTPs) to enable mainstreaming of the nutrition budgeting process into national development plans, and facilitate allocation of resources to nutrition programmes.

Chapter Four presents the results on birth weight; breastfeeding, and infant and young child feeding practices and use of iodized salt at household.²⁴

4.1 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 (defined as 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 days, months and years. Those who survive may have impaired immune function and increased risk of disease; they are likely to remain undernourished, with reduced muscle strength, throughout their lives, and suffer a higher incidence of diabetes and heart disease in later life. Children born with low birth weight also risk 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 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 a higher risk of bearing low birth weight babies.

²² Government of Kenya, 2011. National Food and Nutrition Security Policy.

²³ The Partnership for Maternal, Newborn and Child Health, 2012. Maternal and Child Health: Kenya

²⁴ A section on anthropometric indicators was excluded from the report due to data quality issues.

One of the major challenges in measuring the incidence of low birth weight is that more than half of infants in the developing world are not weighed at birth. 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 health facilities, and those who are, represent only a sample of all births.

Since 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 2,500 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.²⁵

In Bungoma County, 47 percent of last the live-born births in the last two years preceding the survey were weighed at birth and approximately five percent of infants weighed less than 2,500 grams at birth (Table NU.1). The prevalence of low birth weight varied slightly by urban-rural residence, birth order, and by mother's education.

²⁵ For a detailed description of the methodology, see Boerma, JT et al. 1996. *Data on Birth Weight in Developing Countries: Can Surveys Help?* Bulletin of the World Health Organization 74(2): 209-16.

Table NU.1: Low birth weight infants									
Percentage of last live-born children in the last two years that are estimated to have weighed below 2,500 grams at birth and percentage of live births weighed at birth, Bungoma County MICS, 2013/14									
	Percent distribution of births by mother's assessment of size at birth					Total	Percentage of live births:		Number of last live-born children in the last two years
	Very small	Smaller than average	Average	Larger than average or very large	DK		Below 2,500 grams ¹	Weighed at birth ²	
Total	1.8	4.6	62.9	28.3	2.4	100.0	5.3	47.3	311
Mother's age at birth									
Less than 20 years	(8.0)	(0.0)	(69.9)	(19.5)	(2.6)	100.0	(10.4)	(39.7)	33
20-34 years	0.9	5.1	61.3	30.5	2.3	100.0	4.5	48.7	227
35-49 years	(1.8)	(5.6)	(65.4)	(24.4)	(2.8)	100.0	(5.5)	(45.9)	51
Birth order									
1	3.6	2.9	60.2	31.1	2.3	100.0	6.8	55.1	74
2-3	0.5	3.3	65.2	29.3	1.7	100.0	3.7	48.3	91
4-5	0.6	10.2	61.7	23.9	3.6	100.0	5.4	50.5	76
6+	2.9	2.2	64.1	28.7	2.1	100.0	5.9	34.0	69
Area									
Urban	2.3	6.6	56.2	31.1	3.8	100.0	6.3	62.5	137
Rural	1.4	3.1	68.2	26.1	1.3	100.0	4.6	35.3	174
Mother's education									
None	(*)	(*)	(*)	(*)	(*)	100.0	(*)	(*)	5
Primary	2.9	4.1	60.5	30.5	1.9	100.0	6.4	38.1	189
Secondary+	0.0	4.4	66.5	25.9	3.3	100.0	3.5	62.9	116
Wealth index quintile									
Poorest	3.6	7.0	68.9	19.4	1.2	100.0	7.6	30.3	68
Second	2.1	5.2	57.4	33.1	2.2	100.0	5.8	45.7	65
Middle	3.1	2.4	61.7	32.7	0.0	100.0	6.2	40.5	55
Fourth	0.0	2.0	60.0	33.6	4.3	100.0	2.9	43.7	56
Richest	0.0	5.6	65.6	24.6	4.1	100.0	3.8	74.1	68
Ethnicity of household head									
Luhya	1.4	4.6	65.3	27.0	1.8	100.0	4.9	45.0	272
Other ethnic group	4.4	5.1	46.5	37.7	6.3	100.0	8.4	63.4	39
¹ MICS indicator 2.20 - Low-birthweight infants									
² MICS indicator 2.21 - Infants weighed at birth									
() Figures that are based on 25-49 unweighted cases									
(*) Figures that are based on fewer than 25 unweighted cases									

4.2 Breastfeeding and Infant and Young Child Feeding

Proper feeding of infants and young children can increase their chances of survival; it can also promote optimal growth and development, especially in the critical window from birth to two years of age. Breastfeeding for the first two years of life protects children from infection, provides an ideal source of nutrients, and is economical and safe. However, many mothers do not start to breastfeed early enough, do not breastfeed exclusively for the recommended 6 months or stop breastfeeding too soon. There are often pressures to switch to infant formula, which can contribute to growth faltering and micronutrient deficiency. In addition, it can be unsafe if hygienic conditions, including safe drinking water are not readily available. Studies have shown that, in addition to continued breastfeeding,

consumption of appropriate, adequate and safe solid, semi-solid and soft foods from the age of 6 months onwards leads to better health and growth outcomes, with potential to reduce stunting during the first two years of life.²⁶

UNICEF and WHO recommend that infants be initiated to breastfeeding within one hour of birth, breastfed exclusively for the first six months of life and continue to be breastfed up to two years of age and beyond.²⁷ Starting at 6 months, breastfeeding should be combined with safe, age-appropriate feeding of solid, semi-solid and soft foods.²⁸ A summary of key guiding principles^{29, 30} for feeding 6-23 month olds is provided in Table NU.2. A below along with proximate measures for these guidelines collected in this survey.

The guiding principles for which proximate measures and indicators exist are:

- (i) continued breastfeeding;
- (ii) appropriate frequency of meals (but not energy density); and
- (iii) appropriate nutrient content of food.

Feeding frequency is used as proxy for energy intake, requiring children to receive a minimum number of meals/snacks (and milk feeds for non-breastfed children) for their age. Dietary diversity is used to ascertain the adequacy of the nutrient content of the food (not including iron) consumed. For dietary diversity, seven food groups were created for which a child consuming at least four of these is considered to have a better quality diet. In most populations, consumption of at least four food groups means that the child has a high likelihood of consuming at least one animal-source food and at least one fruit or vegetable, in addition to a staple food (grain, root or tuber).³¹

These three dimensions of child feeding are combined into an assessment of the children who received appropriate feeding, using the indicator of “minimum acceptable diet”. To have a minimum acceptable diet in the previous day, a child must have received:

- (i) the appropriate number of meals/snacks/milk feeds;
- (ii) food items from at least 4 food groups; and
- (iii) breastmilk or at least 2 milk feeds (for non-breastfed children).

Table NU.3 is based on mothers’ reports of what their last-born child, born in the last two years, was fed in the first few days of life. It indicates the proportion who were ever breastfed, those who were first breastfed within one hour and one day of birth, and those who received a prelacteal feed.³²

²⁶ Bhuta, Z. et al. 2013. *Evidence-based interventions for improvement of maternal and child nutrition: what can be done and at what cost?* The Lancet June 6, 2013.

²⁷ WHO. 2003. *Implementing the Global Strategy for Infant and Young Child Feeding*. Meeting Report Geneva, 3-5 February, 2003.

²⁸ WHO. 2003. *Global Strategy for Infant and Young Child Feeding*.

²⁹ PAHO. 2003. *Guiding principles for complementary feeding of the breastfed child*.

³⁰ WHO. 2005. *Guiding principles for feeding non-breastfed children 6-24 months of age*.

³¹ WHO. 2008. *Indicators for assessing infant and young child feeding practices. Part 1: Definitions*.

³² Prelacteal feed refers to the provision of any liquid or food, other than breastmilk, to a newborn during the period when breastmilk flow is generally being established (estimated here as the first 3 days of life).

Table NU.2: Guiding Principles for Feeding children age 6 – 23 months

Guiding Principle (age 6-23 months)	Proximate measures	Table
Continue frequent, on-demand breastfeeding for two years and beyond	Breastfed in the last 24 hours	NU.4
Appropriate frequency and energy density of meals	<p>Breastfed children Depending on age, two or three meals/snacks provided in the last 24 hours</p> <p>Non-breastfed children Four meals/snacks <u>and/or milk feeds</u> provided in the last 24 hours</p>	NU.6
Appropriate nutrient content of food	Four food groups ³³ eaten in the last 24 hours	NU.6
Appropriate amount of food	No standard indicator exists	na
Appropriate consistency of food	No standard indicator exists	na
Use of vitamin-mineral supplements or fortified products for infant and mother	No standard indicator exists	na
Practice good hygiene and proper food handling	While it was not possible to develop indicators to fully capture programme guidance, one standard indicator does cover part of the principle: Not feeding with a bottle with a nipple	NU.9
Practice responsive feeding, applying the principles of psycho-social care	No standard indicator exists	na

³³ Food groups used for assessment of this indicator are 1) Grains, roots and tubers, 2) legumes and nuts, 3) dairy products (milk, yogurt, cheese), 4) flesh foods (meat, fish, poultry and liver/organ meats), 5) eggs, 6) vitamin-A rich fruits and vegetables, and 7) other fruits and vegetables.

Table NU.3: Initial breastfeeding

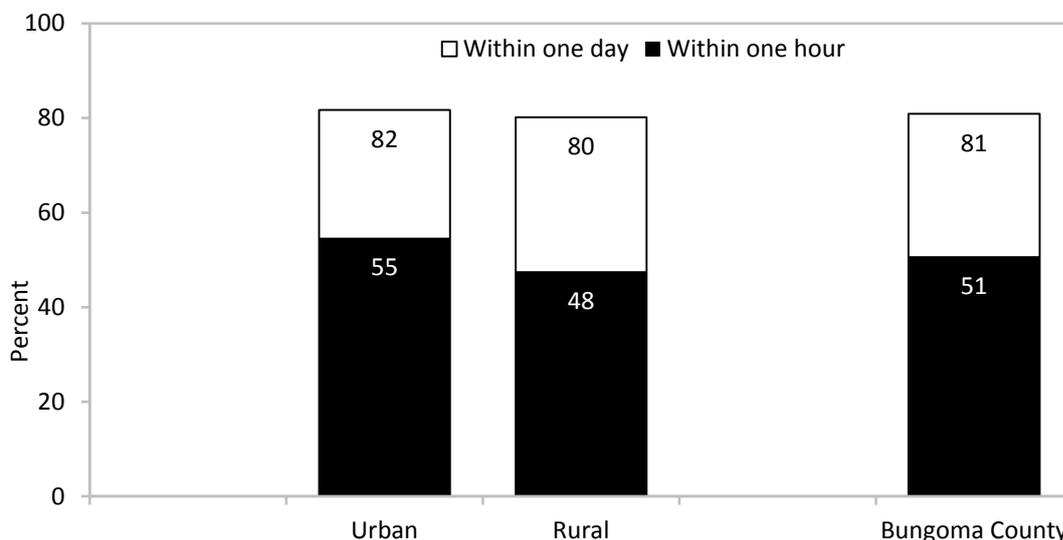
Percentage of last live-born children in the last two years who were ever breastfed, breastfed within one hour of birth, and within one day of birth, and percentage who received a prelacteal feed, Bungoma County MICS, 2013/14

	Percentage who were ever breastfed ¹	Percentage who were first breastfed:		Percentage who received a prelacteal feed	Number of last live-born children in the last two years
		Within one hour of birth ²	Within one day of birth		
Total	97.3	50.8	80.9	31.3	311
Area					
Urban	94.8	54.7	81.7	23.8	137
Rural	99.3	47.6	80.2	37.2	174
Months since last birth					
0-11 months	98.4	56.9	79.8	35.1	161
12-23 months	96.1	44.1	82.1	27.2	150
Assistance at delivery					
Skilled attendant	97.9	55.4	82.4	26.9	154
Traditional birth attendant	100.0	52.2	86.5	37.7	78
Other	(100.0)	(44.6)	(77.1)	(41.1)	37
No one/Missing	(88.0)	(36.7)	(68.3)	(26.7)	42
Place of delivery					
Home	100.0	44.7	82.3	36.4	161
Health facility	97.7	59.7	82.5	26.5	144
Public	98.8	58.0	82.0	28.1	120
Private	(92.2)	(68.3)	(85.0)	(18.2)	24
Mother's education					
None	(*)	(*)	(*)	(*)	5
Primary	98.8	49.2	80.3	35.6	189
Secondary+	94.8	55.4	82.9	22.5	116
Wealth index quintile					
Poorest	97.1	42.8	78.7	26.5	68
Second	97.8	50.5	78.3	44.6	65
Middle	100.0	42.1	78.8	38.3	55
Fourth	97.5	60.9	88.2	19.6	56
Richest	94.8	57.7	81.1	27.1	68
Ethnicity of household head					
Luhya	98.1	51.2	81.5	33.1	272
Other ethnic group	91.8	47.7	76.3	18.8	39
¹ MICS indicator 2.5 - Children ever breastfed					
² MICS indicator 2.6 - Early initiation of breastfeeding					
() Figures that are based on 25-49 unweighted cases					
(*) Figures that are based on fewer than 25 unweighted cases					

Ninety-seven percent of the children were ever breastfed (Table NU.3). However, although a very important step in management of lactation and establishment of a physical and emotional relationship between the baby and the mother, 51 percent of babies were breastfed for the first time within one hour of birth and 81 percent of newborns in Bungoma County started breastfeeding within one day of birth. Fifty-five percent of children residing in urban areas in the last two years preceding the survey were breastfed within the hour of birth with 48 percent breastfed within the same timeframe in rural areas (Figure NU.1). Babies delivered by a skilled birth attendant were more likely to be breastfed within one hour of birth compared to those delivered by other attendants.

About one-third of the babies received prelacteal feed. Babies were more likely to receive prelacteal feed when delivered in a rural area, delivered by a traditional birth attendant, or delivered at home.

Figure NU.1: Initiation of breastfeeding, Bungoma County MICS, 2013/14



The set of Infant and Young Child Feeding indicators reported in Tables NU.4 through NU.8 are based on the mother’s report of consumption of food and fluids during the day or night prior to being interviewed. Data are subject to a number of limitations, some related to the mother’s ability to provide a full report on the child’s liquid and food intake due to recall errors as well as lack of knowledge in cases where the child was fed by other individuals.

In Table NU.4, breastfeeding status is presented for both *Exclusively breastfed* and *Predominantly breastfed*; referring to infants age less than 6 months who are breastfed, distinguished by *the former* only allowing vitamins, mineral supplements, and medicine and *the latter* allowing also plain water and non-milk liquids. The table also shows continued breastfeeding of children at 12-15 and 20-23 months of age.

Approximately 43 percent of children age less than six months were exclusively breastfed (Table NU.4).³⁴ With 59 percent predominantly breastfed, it is evident that a large proportion of mothers need to be informed about the benefits of exclusive breastfeeding. By age 12-15 months, 75 percent of children continued to be breastfed and by age 20-23 months, only 40 percent were still being breastfed.

³⁴ Background characteristics variables are not included in Table NU.4 due to insufficient sample size.

Table NU.4: Breastfeeding							
Percentage of living children according to breastfeeding status at selected age groups, Bungoma County MICS, 2013/14							
	Children age 0-5 months			Children age 12-15 months		Children age 20-23 months	
	Percent exclusively breastfed ¹	Percent predominantly breastfed ²	Number of children	Percent breastfed (Continued breastfeeding at 1 year) ³	Number of children	Percent breastfed (Continued breastfeeding at 2 years) ⁴	Number of children
Total	43.1	58.5	83	75.3	52	40.2	50
¹ MICS indicator 2.7 - Exclusive breastfeeding under 6 months ² MICS indicator 2.8 - Predominant breastfeeding under 6 months ³ MICS indicator 2.9 - Continued breastfeeding at 1 year ⁴ MICS indicator 2.10 - Continued breastfeeding at 2 years							

Table NU.5 shows the median duration of breastfeeding according to selected background characteristics. Among children under 3 years of age, the median duration for ever breastfeeding is 21 months, two months for exclusive breastfeeding, and three months for predominant breastfeeding.

Table NU.5: Duration of breastfeeding				
Median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among children age 0-35 months, Bungoma County MICS, 2013/14				
	Median duration (in months) of:			Number of children age 0-35 months
	Any breastfeeding ¹	Exclusive breastfeeding	Predominant breastfeeding	
Median	20.8	2.1	3.4	479
Sex				
Male	20.5	1.9	2.3	237
Female	21.0	2.5	4.5	242
Area				
Urban	21.3	2.2	4.0	214
Rural	20.4	2.0	3.1	264
Mother's education				
None	(*)	-	-	12
Primary	20.0	1.3	3.6	288
Secondary+	21.1	3.1	3.8	178
Wealth index quintile				
Poorest	20.5	0.7	2.3	115
Second	21.3	2.1	3.7	100
Middle	18.9	2.3	2.3	96
Fourth	21.5	2.8	4.7	82
Richest	20.9	4.0	4.5	85
Ethnicity of household head				
Luhya	20.7	1.9	3.2	428
Other ethnic group	21.6	3.2	4.0	51
Mean	20.2	2.9	4.1	479
¹ MICS indicator 2.11 - Duration of breastfeeding				
(*) Figures that are based on fewer than 25 unweighted cases				

The age-appropriateness of breastfeeding of children under age 24 months is provided in Table NU.6. Different criteria of feeding were used depending on the age of the child. For infants age 0-5 months, exclusive breastfeeding was considered as age-appropriate feeding, while children age 6-23 months were considered to be appropriately fed if they were receiving breastmilk and solid, semi-solid or soft food. As a result of feeding patterns in Bungoma County, only 71 percent of children age 6-23 months are being appropriately breastfed and age-appropriate breastfeeding among all children age 0-23 months drops to 64 percent. Variations by household wealth are evident, where the proportion of children age 0-23 months appropriately breastfed is 49 percent in the poorest households and 79 percent in the richest.

Table NU.6: Age-appropriate breastfeeding						
Percentage of children age 0-23 months who were appropriately breastfed during the previous day, Bungoma County MICS, 2013/14						
	Children age 0-5 months		Children age 6-23 months		Children age 0-23 months	
	Percent exclusively breastfed ¹	Number of children	Percent currently breastfeeding and receiving solid, semi-solid or soft foods	Number of children	Percent appropriately breastfed ²	Number of children
Total	43.1	83	70.7	236	63.5	319
Sex						
Male	(36.6)	42	70.2	117	61.4	159
Female	(49.7)	42	71.2	118	65.6	160
Area						
Urban	(40.7)	31	67.7	117	62.0	148
Rural	(44.6)	52	73.7	119	64.8	171
Mother's education						
None	(*)	4	(*)	4	(*)	8
Primary	(38.7)	47	69.6	141	61.9	188
Secondary+	(55.1)	32	73.2	90	68.4	123
Wealth index quintile						
Poorest	(31.3)	29	(60.4)	45	48.9	74
Second	(*)	18	(65.5)	51	57.2	68
Middle	(*)	11	(78.0)	51	72.2	62
Fourth	(*)	14	(67.5)	41	64.1	55
Richest	(*)	12	80.9	48	79.1	60
Ethnicity of household head						
Luhya	40.5	73	69.5	210	62.0	284
Other ethnic group	(*)	10	(80.7)	26	75.7	36
	¹ MICS indicator 2.7 - Exclusive breastfeeding under 6 months					
	² MICS indicator 2.12 - Age-appropriate breastfeeding					
	() Figures that are based on 25-49 unweighted cases					
	(*) Figures that are based on fewer than 25 unweighted cases					

Overall, 81 percent of infants age 6-8 months received solid, semi-solid, or soft foods at least once during the previous day (Table NU.7)³⁵. The same percentage is noted among currently breastfeeding infants.

³⁵ Descriptions by rural/urban areas and sex of child were not done due to small numbers of respondents in those categories.

Table NU.7: Introduction of solid, semi-solid, or soft foods

Percentage of infants age 6-8 months who received solid, semi-solid, or soft foods during the previous day, Bungoma County MICS, 2013/14

	Currently breastfeeding		Currently not breastfeeding		All	
	Percent receiving solid, semi-solid or soft foods	Number of children age 6-8 months	Percent receiving solid, semi-solid or soft foods	Number of children age 6-8 months	Percent receiving solid, semi-solid or soft foods ¹	Number of children age 6-8 months
Total	81.1	50	(*)	1	81.4	51
¹ MICS indicator 2.13 - Introduction of solid, semi-solid or soft foods						
(*) Figures that are based on fewer than 25 unweighted cases						

Overall, about half of the children age 6-23 months were receiving solid, semi-solid and soft foods the minimum number of times (Table NU.8).³⁶ The proportion of children receiving the minimum dietary diversity, or foods from at least four food groups, was much lower than that for the minimum meal frequency, indicating the need to focus on improving diet quality and nutrient intake among this vulnerable group. The overall assessment using the indicator of minimum acceptable diet revealed that only 22 percent were benefitting from a diet sufficient in both diversity and frequency (18 percent males and 26 percent females).

³⁶ Note that a comparison between children 6-23 months currently breastfeeding and those currently not breastfeeding was removed from Table NU.8 because a high proportion of children were currently breastfeeding.

Table NU.8: Infant and young child feeding (IYCF) practices

Percentage of children age 6-23 months who received appropriate liquids and solid, semi-solid, or soft foods the minimum number of times or more during the previous day, by breastfeeding status, Bungoma County MICS, 2013/14

	Currently breastfeeding				Currently not breastfeeding				All				
	Percent of children who received:			Number of children age 6-23 months	Percent of children who received:			At least 2 milk feeds ³	Number of children age 6-23 months	Percent of children who received:			Number of children age 6-23 months
	Minimum dietary diversity ^a	Minimum meal frequency ^b	Minimum acceptable diet ^{1, c}		Minimum dietary diversity ^a	Minimum meal frequency ^b	Minimum acceptable diet ^{2, c}			Minimum dietary diversity ^a	Minimum meal frequency ^{5, b}	Minimum acceptable diet ^c	
Total	41.7	48.3	23.9	179	(41.1)	(52.7)	(16.3)	(25.2)	50	41.8	49.2	22.2	236
Sex													
Male	40.1	45.9	20.3	89	(37.4)	(70.8)	(9.5)	(15.8)	24	40.6	51.2	18.1	117
Female	43.3	50.5	27.4	91	(*)	(*)	(*)	(*)	26	43.0	47.3	26.2	118
Age													
6-8 months	19.5	50.2	7.3	50	(*)	(*)	(*)	(*)	1	19.2	49.4	7.2	51
9-11 months	(57.9)	(33.0)	(27.3)	32	(*)	(*)	(*)	(*)	1	(55.9)	(31.9)	(26.3)	33
12-17 months	33.0	44.8	13.4	53	(*)	(*)	(*)	(*)	15	29.1	43.6	11.8	70
18-23 months	(65.2)	(61.4)	(52.7)	44	(54.0)	(62.1)	(22.0)	(33.8)	33	60.8	61.7	39.6	82
Area													
Urban	44.6	46.7	26.6	84	(34.2)	(52.6)	(11.5)	(16.6)	29	41.4	48.2	22.7	117
Rural	39.2	49.6	21.5	95	(*)	(*)	(*)	(*)	21	42.1	50.2	21.7	119
Mother's education													
None	(*)	(*)	(*)	2	(*)	(*)	(*)	(*)	2	(*)	(*)	(*)	4
Primary	35.4	41.1	16.1	108	(37.1)	(54.5)	(5.7)	(18.5)	30	36.2	44.0	13.8	141
Secondary+	50.5	60.0	36.6	70	(*)	(*)	(*)	(*)	18	50.6	58.9	36.4	90
Wealth index quintile													
Poorest	(42.9)	(56.3)	(33.5)	29	(*)	(*)	(*)	(*)	12	(40.2)	(50.1)	(25.6)	45
Second	(31.1)	(44.7)	(15.0)	37	(*)	(*)	(*)	(*)	11	(26.4)	(48.0)	(11.7)	51
Middle	(45.5)	(41.4)	(23.3)	41	(*)	(*)	(*)	(*)	10	(47.6)	(40.7)	(18.8)	51
Fourth	(42.9)	(40.7)	(23.0)	32	(*)	(*)	(*)	(*)	10	(47.2)	(48.5)	(25.7)	41
Richest	(45.9)	(58.7)	(26.5)	40	(*)	(*)	(*)	(*)	8	48.7	59.4	30.5	48
Ethnicity of household head													

Luhya	43.1	48.7	25.5	158	(38.5)	(50.1)	(14.9)	(21.4)	47	42.3	49.0	23.0	210
Other ethnic group	(31.2)	(45.3)	(12.7)	22	(*)	(*)	(*)	(*)	4	(37.4)	(51.0)	(15.7)	26
¹ MICS indicator 2.17a - Minimum acceptable diet (breastfed) ² MICS indicator 2.17b - Minimum acceptable diet (non-breastfed) ³ MICS indicator 2.14 - Milk feeding frequency for non-breastfed children ⁴ MICS indicator 2.16 - Minimum dietary diversity ⁵ MICS indicator 2.15 - Minimum meal frequency													
<p>^a Minimum dietary diversity is defined as receiving foods from at least 4 of 7 food groups: 1) Grains, roots and tubers, 2) legumes and nuts, 3) dairy products (milk, yogurt, cheese), 4) flesh foods (meat, fish, poultry and liver/organ meats), 5) eggs, 6) vitamin-A rich fruits and vegetables, and 7) other fruits and vegetables.</p> <p>^b Minimum meal frequency among currently breastfeeding children is defined as children who also received solid, semi-solid, or soft foods 2 times or more daily for children age 6-8 months and 3 times or more daily for children age 9-23 months. For non-breastfeeding children age 6-23 months it is defined as receiving solid, semi-solid or soft foods, or milk feeds, at least 4 times.</p> <p>^c The minimum acceptable diet for breastfed children age 6-23 months is defined as receiving the minimum dietary diversity and the minimum meal frequency, while it for non-breastfed children further requires at least 2 milk feedings and that the minimum dietary diversity is achieved without counting milk feeds.</p>													
<p>() Figures that are based on 25-49 unweighted cases (*) Figures that are based on fewer than 25 unweighted cases</p>													

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.9 shows that bottle-feeding is prevalent for children under two years of age in Bungoma County. About 16 percent of children under 6 months are fed using a bottle with a nipple. This practice is more prevalent in the following background categories: 6-11 months old, urban residency, children with mothers who attained secondary/higher education.

Table NU.9: Bottle feeding		
Percentage of children age 0-23 months who were fed with a bottle with a nipple during the previous day, Bungoma County MICS, 2013/14		
	Percentage of children age 0-23 months fed with a bottle with a nipple ¹	Number of children age 0-23 months
Total	15.6	319
Sex		
Male	15.8	159
Female	15.5	160
Age		
0-5 months	13.2	83
6-11 months	23.1	84
12-23 months	12.8	152
Area		
Urban	18.8	148
Rural	12.9	171
Mother's education		
None	(*)	8
Primary	11.8	188
Secondary+	22.5	123
Wealth index quintile		
Poorest	4.8	74
Second	11.9	68
Middle	22.3	62
Fourth	16.4	55
Richest	25.7	60
Ethnicity of household head		
Luhya	15.2	284
Other ethnic group	19.2	36
¹ MICS indicator 2.18 - Bottle feeding		
(*) Figures that are based on fewer than 25 unweighted cases		

4.3 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 indicator is the percentage of households consuming adequately iodized salt (≥ 15 parts per million).

The IDD legislation passed in Kenya in 1978 (revised in 1988) covers all salt produced for human consumption. Specifications for edible salt are reviewed regularly (latest revision was in September 2000) by the Kenya Bureau of Standards. Iodization of salt is mandatory. The mandated level of iodization is 168.5 mg/kg of salt, or 100ppm.³⁷ The Ministry of Health monitors IDD in the country.

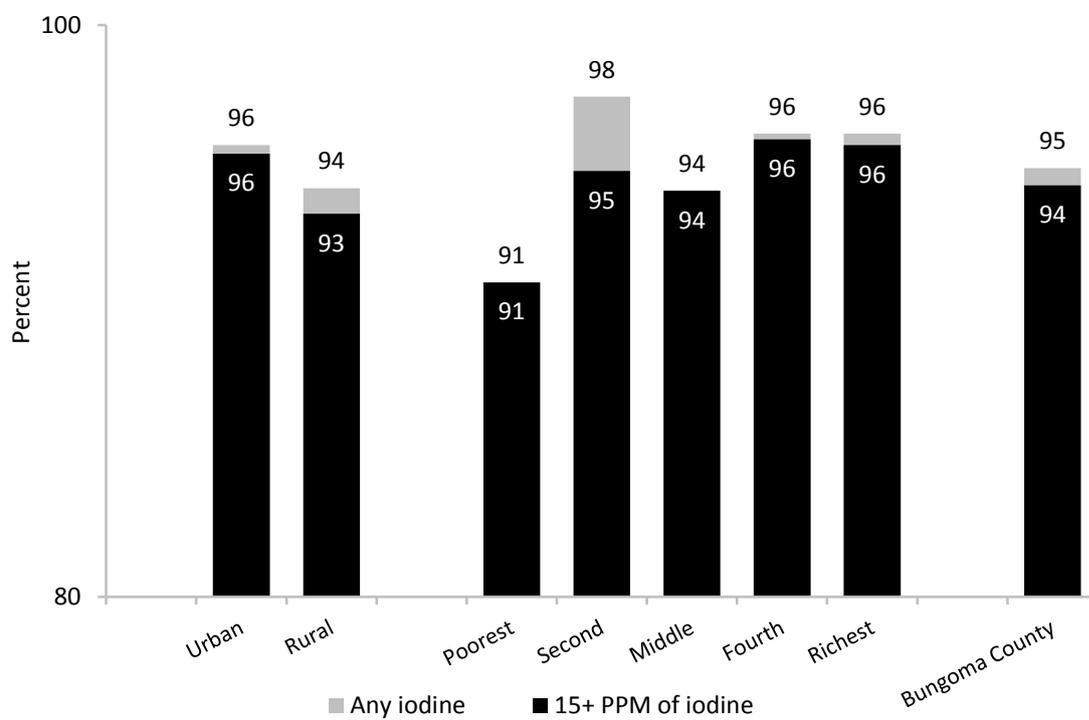
In 92 percent of households in Bungoma, salt used for cooking was tested for iodine content by using salt test kits and testing for the presence of potassium iodate content. Table NU.10 shows that in five percent of households, there was no salt available. These households were included in the denominator of the indicator. In 94 percent of households, salt was found to contain at least 15 parts per million (ppm) or more of iodine.

Table NU.10: Iodized salt consumption							
Percent distribution of households by consumption of iodized salt, Bungoma County MICS, 2013/14							
	Percentage of households in which salt was tested	Number of households	Percent of households with:			Total	Number of households in which salt was tested or with no salt
			No salt	>0 and <15 PPM	15+ PPM ¹		
Total	92.1	1,246	5.0	0.6	94.4	100.0	1,208
Area							
Urban	90.8	614	4.3	0.3	95.5	100.0	582
Rural	93.3	632	5.7	0.9	93.4	100.0	626
Wealth index quintile							
Poorest	89.7	246	9.0	0.0	91.0	100.0	243
Second	96.8	226	2.5	2.6	94.9	100.0	224
Middle	90.1	233	5.8	0.0	94.2	100.0	223
Fourth	91.2	256	3.9	0.2	96.0	100.0	243
Richest	92.9	285	3.8	0.4	95.8	100.0	275
¹ MICS indicator 2.19 - Iodized salt consumption							

The consumption of adequately iodized salt is graphically presented in Figure NU.2 together with the percentage of salt containing less than 15 ppm. More than 90 percent of households in both urban (96 percent) and rural areas (93 percent) are using adequately iodized salt. There is no difference in use of iodized salt by household wealth.

³⁷ <http://www.tulane.edu/~internut/Countries/Kenya/kenyaiodine.html>

Figure NU.2: Consumption of iodized salt, Bungoma County MICS, 2013/14



5. Child Health

Kenya has acceded and ratified a number of major international and regional conventions some of which aim at ensuring child survival, growth and development. In 1990, Kenya ratified the United Nations Convention on the rights of the Child (CRC).^{38, 39} Article 6 of the CRC refers to the right to life, survival and development. The term ‘development’ in this context refers to physical, mental, emotional, cognitive, social and cultural development. Further, Article 24 states that ‘children have the right to good quality health care – the best health care possible – to safe drinking water, nutritious food, a clean and safe environment, and information to help them stay healthy’.⁴⁰ The United Nations Millennium Declaration, signed in September 2000, commits world leaders to combat poverty, hunger, disease, illiteracy, environmental degradation, and discrimination against women. The objective of one of the Millennium Development Goals (MDGs) – MDG 4 - is to reduce child mortality by two thirds between 1990 and 2015. The Constitution of Kenya (2010) states that every person has the right to the highest attainable standard of health, which includes the right to health care services, including reproductive health care.

This chapter presents the results on the following subtopics: vaccinations; neonatal tetanus protection; and care of illnesses (diarrhoea, acute respiratory infections, malaria/fever); and use of solid fuels.

5.1 Vaccinations

Immunization plays a key part in reducing preventable child diseases and mortality. The Global Vaccine Action Plan (GVAP) was endorsed by the 194 Member States of the World Health Assembly in May 2012 to achieve the Decade of Vaccines vision by delivering universal access to immunization. Immunization has saved the lives of millions of children in the four decades since the launch of the Expanded Programme on Immunization (EPI) in 1974. Worldwide there are still millions of children not reached by routine immunization and as a result, vaccine-preventable diseases cause more than 2 million deaths every year.

The WHO Recommended Routine Immunizations for Children⁴¹ states that all children to be vaccinated against tuberculosis, diphtheria, pertussis, tetanus, polio, measles, hepatitis B, haemophilus influenzae type b, pneumonia/meningitis, rotavirus, and rubella.

All doses in the primary series are recommended to be completed before the child’s first birthday, although depending on the epidemiology of disease in a country, the first doses of measles and rubella containing vaccines may be recommended at 12 months or later. The recommended number and timing of most other doses also vary slightly with local epidemiology and may include booster doses later in childhood.

³⁸Kenya Human Rights Commission. 2010. Towards Equality and Anti-Discrimination: An Overview of International and Domestic Law an Anti-discrimination in Kenya.

³⁹The Kenyan Section of the International Commission of Jurists. 2004. International Human Rights Standards: Reporting Obligations – The Convention of the Rights of the Child.

⁴⁰The United Nations General Assembly. 1989. The Convention on the Rights of the Child.

⁴¹<http://www.who.int/immunization/diseases/en>. Table 2 includes recommendations for all children and additional antigens recommended only for children residing in certain regions of the world or living in certain high-risk population groups.

The Kenya Expanded Programme on Immunization (KEPI) was established in 1980 and is integrated within the Department of Preventive and Promotive Health Services of the Ministry of Health as part of the Essential Health Package (EHP). KEPI is now known as the Division of Vaccine and Immunisation (DVI). The Kenya National Immunization Programme immunization schedule is shown below. All vaccines should be received during the first year of life except the second dose of measles given at 18 months. Yellow fever is given at 9 months to children in selected sub-counties in the former Rift Valley province.⁴²

Child Immunization Schedule in Kenya^{43, 44}

Vaccine	Age	Remarks
BCG Vaccine: at birth		Intra-dermal left forearm; BCG Scar checked
Dose: (0.05mls)	Below 1 year	
Dose: (0.1mls)	Above 1 year	
Oral Polio Vaccine (OPV)		2 drops (orally)
Birth dose: OPV 0	At birth or within 2 weeks	
1 st dose: OPV 1	At 6 weeks	
2 nd dose: OPV 2	At 10 weeks	
3 rd dose: OPV 3	At 14 weeks	
Diphtheria/Pertussis/Tetanus/Hepatitis B/haemophilus influenzae Type b		0.5mls (intra-muscular left outer thigh)
1 st dose	6 weeks	
2 nd dose	10 weeks	
3 rd dose	14 weeks	
Pneumococcal Vaccine		0.5mls (intra-muscular right outer thigh)
1 st dose	6 weeks	
2 nd dose	10 weeks	
3 rd dose	14 weeks	
Rota Virus (Rotarix)		1.5mls (orally)
1 st dose	6 weeks	
2 nd dose	10 weeks	
Measles Vaccine at 6 months: in the event of measles outbreak or HIV exposed children (HEI)	6 months	0.5mls (Subcutaneously right upper arm)
Measles Vaccine	9 months	
Measles Vaccine	18 months	
Yellow Fever	9 months	0.5mls (Intra-muscular left upper deltoid)
Other Vaccines		Other vaccines refer to those not in the usual KEPI schedule

⁴² MICS 2013/14 collected data on Yellow Fever but further analysis is required before the findings can be shared.

⁴³ Ministry of Health, 2013. Mother and Child Health Booklet. Republic of Kenya

⁴⁴ Kenya is planning to carry out a Measles-Rubella (MR) and IPV Campaign in 2016, and subsequently include MR in the child immunization schedule in 2017.

		and may include MMR, Typhoid, etc.
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In Bungoma County, the MICS collected data on immunization coverage for all children under three years of age. All mothers or caretakers were asked to provide vaccination cards. If the immunization card for a child was available, interviewers copied vaccination information from the cards onto the MICS questionnaire. If no immunization card was available for the child, the interviewer proceeded to ask the mother to recall whether or not the child had received each of the vaccines as per the schedule. The final immunization coverage estimates are based on information obtained from the immunization card and/or the mother’s report.

The percentage of children age 12-23 months and 24-35 months who had received each of the specific vaccines by source of information (immunization card and mother’s recall) is shown in Table CH.1 and Figure CH.1. The denominators for the table are comprised of children age 12-23 months and 24-35 months and only children who are in these age groups are counted. In the first three columns in each panel of the table, the numerator includes all children who were vaccinated at any time before the survey according to the immunization card or the mother’s report. In the last column in each panel, only those children who were fully immunized before their first birthday, as recommended, were included. The proportion of children immunized before the first birthday but without immunization card/record was assumed to be the same as for those with vaccination cards/records.

Most children age 12-23 months had been vaccinated against BCG and measles by the age of 12 months (96 and 92 percent, respectively), and had received the first dose of DPT, HepB, and Hib vaccines (97 percent, 88 percent and 94 percent, respectively). The percentages declined for the second and third doses of DPT, HepB, and Hib. Similarly, 96 percent of children age 12-23 months had received Polio 1 by age 12 months and this declined to 78 percent by the third dose. As a result, the percentage of children 12-23 months of age who had been fully vaccinated by their first birthday was low at only 56 percent. The proportion of children fully vaccinated by 12 months of age was lower for children age 24-35 months (30 percent). The individual coverage figures for children age 24-35 months are generally lower to those age 12-23 months suggesting that immunization coverage has been on average improving in Bungoma County between 2011 and 2013.

Table CH.1: Vaccinations in the first years of life

Percentage of children age 12-23 months and 24-35 months vaccinated against vaccine preventable childhood diseases at any time before the survey and by their first birthday, Bungoma County MICS, 2013/14

	Children age 12-23 months:				Children age 24-35 months:			
	Vaccinated at any time before the survey according to:			Vaccinated by 12 months of age ^a	Vaccinated at any time before the survey according to:			Vaccinated by 12 months of age
	Vaccination card	Mother's report	Either		Vaccination card	Mother's report	Either	
Antigen								
BCG ¹	63.4	33.7	97.1	95.7	46.3	53.0	99.3	89.8
Polio								
At birth	59.5	25.7	85.2	82.9	43.4	39.8	83.1	79.5
1	63.4	34.3	97.8	96.4	46.2	52.7	99.0	88.7
2	63.4	33.0	96.4	95.0	46.7	50.4	97.1	87.1
3 ²	62.5	15.8	78.4	77.5	45.7	27.0	72.7	63.6
DPT								
1	63.6	34.9	98.6	97.2	46.5	52.7	99.2	88.9
2	63.6	31.2	94.8	93.5	47.0	47.0	94.0	84.3
3 ³	62.8	25.9	88.7	87.7	46.0	44.8	90.8	79.5
HepB								
At birth	59.3	29.5	88.8	85.2	43.3	42.7	86.0	82.0
1	65.9	23.0	88.9	87.7	46.5	44.6	91.1	81.6
2	65.9	18.8	84.7	83.5	47.0	41.4	88.4	79.4
3 ⁴	65.0	2.1	67.2	81.1	46.0	8.9	54.9	48.0
Hib								
1	59.2	35.5	94.8	93.8	37.6	57.3	94.9	87.9
2	59.2	27.8	87.0	86.1	37.6	55.9	93.5	87.3
3 ⁵	58.7	26.8	85.5	83.9	37.6	50.8	88.4	79.7
Measles (MCV1) ⁷	59.5	38.9	98.3	91.8	44.7	52.1	96.7	79.0
Fully vaccinated ^{8, b}	64.0	0.0	64.0	56.3	47.0	3.8	50.8	30.2
No vaccinations	0.0	0.9	0.9	1.6	0.0	0.7	0.7	3.7
Number of children	152	152	152	152	160	160	160	160
¹ MICS indicator 3.1 - Tuberculosis immunization coverage ² MICS indicator 3.2 - Polio immunization coverage ³ MICS indicator 3.3 - Diphtheria, pertussis and tetanus (DPT) immunization coverage ⁴ MICS indicator 3.5 - Hepatitis B immunization coverage ⁵ MICS indicator 3.6 - Haemophilus influenzae type B (Hib) immunization coverage ⁶ MICS indicator 3.7 - Yellow fever immunization coverage ⁴⁵ ⁷ MICS indicator 3.4; MDG indicator 4.3 - Measles immunization coverage ⁸ MICS indicator 3.8 - Full immunization coverage								
^a All MICS indicators refer to results in this column ^b Includes: BCG, Polio3, DPT3, HepB3, Hib3, and Measles (MCV1) as per the vaccination schedule in Country								

⁴⁵ Yellow fever immunization coverage not included in analysis

Figure CH.1: Vaccinations by age 12 months Bungoma County MICS, 2013/14

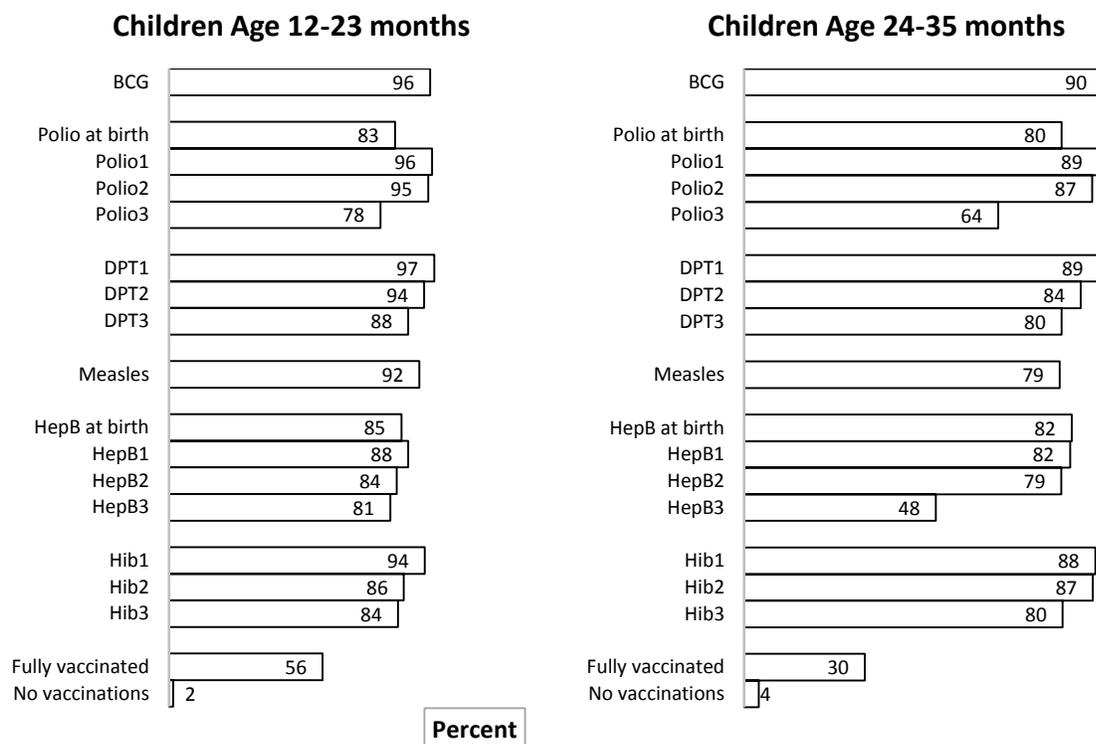


Table CH.2 presents vaccination coverage estimates among children age 12-23 months by background characteristics. The figures indicate children receiving the vaccinations at any time up to the date of the survey, and are based on information from both the vaccination cards and mothers'/caretakers' reports. Vaccination cards were seen by the interviewer for only 63 percent of children age 12-23 months.

Overall, 64 percent of children age 12-23 months are fully immunized against vaccine preventable childhood diseases. The percentage of children fully vaccinated is higher for rural areas (71 percent) than for urban areas (59 percent). Children whose mothers had secondary or higher education had higher vaccination rates than those whose mothers had primary education.

Table CH.2: Vaccinations by background characteristics

Percentage of children age 12-23 months currently vaccinated against vaccine preventable childhood diseases, Bungoma County MICS, 2013/14

	Percentage of children who received:																			Percentage with vaccination card seen	Number of children age 12-23 months
	Polio					DPT			HepB				Hib			Measles (MCV1)	Full ^a	None			
	BCG	At birth	1	2	3	1	2	3	At birth	1	2	3	1	2	3						
Total	97.1	85.2	97.8	96.4	78.4	98.6	94.8	88.7	88.8	88.9	84.7	67.2	94.8	87.0	85.5	98.3	64.0	0.9	63.4	152	
Sex																					
Male	100.0	83.3	98.6	98.6	81.1	99.0	93.6	86.4	90.1	85.8	84.3	69.4	96.2	86.7	84.3	98.6	65.3	0.0	65.3	78	
Female	94.0	87.3	96.8	94.0	75.5	98.1	96.1	91.1	87.3	92.3	85.1	64.7	93.2	87.4	86.8	98.0	62.6	1.9	61.4	74	
Area																					
Urban	98.3	78.4	97.3	95.6	78.9	98.3	91.7	82.8	87.3	85.0	80.9	60.1	92.3	80.5	79.7	98.3	58.5	1.7	58.5	86	
Rural	95.4	94.2	98.4	97.4	77.8	98.9	98.9	96.4	90.8	94.4	90.0	77.1	98.1	96.0	93.5	98.4	71.4	0.0	69.8	66	
Mother's education																					
None	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	
Primary	94.7	82.3	96.5	94.0	74.9	98.3	93.3	84.4	86.9	87.2	81.1	62.4	93.8	82.9	82.4	97.6	60.5	1.7	60.5	84	
Secondary+	100.0	88.2	99.3	99.3	83.0	100.0	97.8	95.0	91.1	90.9	89.2	73.3	96.4	92.4	90.7	99.3	69.3	0.0	69.3	64	

^a Includes: BCG, Polio3, DPT3, HepB3, Hib3, and Measles (MCV1) as per the vaccination schedule in Kenya

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

5.2 Neonatal Tetanus Protection

The goal of MDG 5 is to reduce by three quarters the maternal mortality ratio, with one strategy to eliminate maternal tetanus. Following on the 42nd and 44th World Health Assembly calls for elimination of neonatal tetanus, the global community continues to work to reduce the incidence of neonatal tetanus to less than one case per 1,000 live births in every district by 2015.

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

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

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

Table CH.3 shows the protection status from tetanus of women age 15-49 years who have had a live birth within the last two years preceding the survey. In Bungoma County, 54 percent of these women were protected against neonatal tetanus. The proportion was higher in urban areas (64 percent) than in rural areas (46 percent), and higher for those with secondary or higher education (64 percent) compared to those with only primary education (47 percent).

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, Bungoma County MICS, 2013/14

	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		
Total	36.6	15.8	1.1	0.0	0.2	53.8	311
Area							
Urban	44.5	17.7	1.6	0.0	0.0	63.8	137
Rural	30.4	14.3	0.8	0.0	0.4	45.8	174
Education							
None	(*)	(*)	(*)	(*)	(*)	(*)	5
Primary	32.1	12.2	1.9	0.0	0.3	46.5	189
Secondary+	43.8	22.3	0.0	0.0	0.0	66.1	116
Wealth index quintile							
Poorest	39.5	14.0	3.2	0.0	0.0	56.7	68
Second	30.9	14.9	0.0	0.0	0.0	45.8	65
Middle	39.8	22.5	0.8	0.0	1.2	64.3	55
Fourth	31.5	12.6	1.7	0.0	0.0	45.7	56
Richest	40.8	15.7	0.0	0.0	0.0	56.6	68
Ethnicity of household head							
Luhya	36.1	15.2	1.0	0.0	0.2	52.5	272
Other ethnic group	40.4	20.2	2.0	0.0	0.0	62.6	39

¹ MICS indicator 3.9 - Neonatal tetanus protection

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

5.3 Care of Illness

A key strategy for accelerating progress toward MDG 4 is to tackle the diseases that are the leading causes of morbidity and mortality of children under-5 years. Diarrhoea and pneumonia are two such diseases. The Global Action Plan for the Prevention and Control of Pneumonia and Diarrhoea (GAPPD) aims to end preventable pneumonia and diarrhoea death by reducing mortality from pneumonia to three deaths per 1,000 live births and mortality from diarrhoea to one death per 1,000 live births by 2025. Malaria is also a major cause of mortality of children under-5 years, leading to about 1,200 deaths children every day, especially in sub-Saharan Africa.⁴⁶

⁴⁶UNICEF Fact sheet http://www.unicef.org/media/media_81674.html

Table CH.4 presents the percentage of children under-5 years of age who were reported to have had an episode of diarrhoea, symptoms of acute respiratory infection (ARI), or fever during the two weeks preceding the survey. These results measure period-prevalence of those illnesses over a two-week time window.

The definition of a case of diarrhoea or fever, in this survey, was the mother's or caretaker's report that the child had such symptoms over the specified period; no other evidence was sought beside the opinion of the mother. A child was considered to have had an episode of ARI if the mother or caretaker reported that the child had, over the specified period, an illness with a cough with rapid or difficult breathing, and whose symptoms were perceived to be due to a problem in the chest or both a problem in the chest and a blocked nose. While this approach is reasonable in the context of a MICS, these basically simple case definitions must be kept in mind when interpreting the results, as well as the potential for reporting and recall biases. Further, diarrhoea, fever and ARI are not only seasonal but are also characterized by the often rapid spread of localized outbreaks from one area to another at different points in time.

In Bungoma, 12 percent of children under five years of age were reported to have had diarrhoea in the two weeks preceding the survey, four percent symptoms of ARI, and 20 percent an episode of fever (Table CH.4). About 15 percent of children under-5 years in urban areas had experienced an episode of diarrhoea compared to 10 percent in rural areas. Reported episodes of fever were 24 percent in rural areas and 14 percent in urban areas.

Table CH.4: Reported disease episodes				
Percentage of children age 0-59 months for whom the mother/caretaker reported an episode of diarrhoea, symptoms of acute respiratory infection (ARI), and/or fever in the last two weeks, Bungoma County MICS, 2013/14				
	Percentage of children who in the last two weeks had:			Number of children age 0-59 months
	An episode of diarrhoea	Symptoms of ARI	An episode of fever	
Total	11.9	3.8	19.8	846
Sex				
Male	13.2	4.1	20.2	414
Female	10.6	3.5	19.4	432
Area				
Urban	14.6	3.8	14.1	376
Rural	9.7	3.9	24.4	470
Age				
0-11 months	16.7	3.9	25.3	167
12-23 months	20.9	3.6	20.0	152
24-35 months	13.9	4.5	16.7	160
36-47 months	6.7	4.0	19.0	215
48-59 months	2.7	3.1	18.2	152
Mother's education				
None	(3.5)	(9.3)	(12.0)	34
Primary	13.7	3.5	20.2	514
Secondary	9.7	3.8	20.2	298
Wealth index quintile				
Poorest	11.8	6.4	20.5	199
Second	15.0	3.2	22.0	184
Middle	8.7	2.0	14.6	162
Fourth	11.8	3.6	20.2	157
Richest	11.6	3.4	21.6	143
Ethnicity of household head				
Luhya	12.2	3.9	19.6	762
Other ethnic group	9.1	3.1	21.3	84

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

5.3.1 Diarrhoea

Diarrhoea is one of the leading causes of death among children under five worldwide⁴⁷. 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. In addition, provision of zinc supplements has been shown to reduce the duration and severity of the illness as well as the risk of future

⁴⁷WHO, 2013. Fact Sheet number 330.

episodes within the next two or three months. Preventing dehydration and malnutrition by increasing fluid intake and continuing to feed the child are also important strategies for managing diarrhoea.

During the survey, mothers or caretakers were asked whether their child under five years had an episode of diarrhoea in the two weeks prior to the survey. In cases where mothers reported that the child had diarrhoea, a series of questions were asked about the treatment of the illness, including what the child had been given to drink and eat during the episode and whether this was more or less than what was usually given to the child.

The overall period-prevalence of diarrhoea in children under-5 years of age is 12 percent (Table CH.4). The highest period-prevalence is seen among children age 12-23 months (21 percent).

Table CH.5 shows the percentage of children with diarrhoea in the two weeks preceding the survey for whom advice or treatment was sought and where. Overall, a health facility or provider was seen in 46 percent of cases, predominantly in public health facilities (40 percent).⁴⁸

Table CH.5: Care-seeking during diarrhoea							
Percentage of children age 0-59 months with diarrhoea in the last two weeks for whom advice or treatment was sought, by source of advice or treatment, Bungoma County MICS, 2013/14							
Percentage of children with diarrhoea for whom:							
Advice or treatment was sought from:							
Health facilities or providers							
	Public	Private	Community health provider ^a	Other source	A health facility or provider ^{1, b}	No advice or treatment sought	Number of children age 0-59 months with diarrhoea in the last two weeks
Total	39.8	13.1	0.0	5.4	46.2	41.7	100
Area							
Urban	42.5	12.7	0.0	9.8	45.4	35.0	55
Rural	(36.5)	(13.6)	(0.0)	(0.0)	(47.2)	(49.8)	45
Mother's education							
None	(*)	(*)	(*)	(*)	(*)	(*)	1
Primary	41.5	11.2	0.0	1.6	46.7	45.7	70
Secondary+	(37.3)	(18.2)	(0.0)	(14.7)	(46.8)	(29.8)	29
Ethnicity of household head							
Luhya	43.1	11.3	0.0	5.8	48.5	39.9	93
Other ethnic group	(*)	(*)	(*)	(*)	(*)	(*)	8
¹ MICS indicator 3.10 - Care-seeking for diarrhoea							
^a Community health providers includes both public (<i>Community health worker and Mobile/Outreach clinic</i>) and private (<i>Mobile clinic</i>) health facilities							
^b Includes all public and private health facilities and providers, but excludes private pharmacy							
() Figures that are based on 25-49 unweighted cases							
(*) Figures that are based on fewer than 25 unweighted cases							

⁴⁸Most of the variables in Table CH.5 could not be analysed due to small number of cases reported.

Table CH.6 provides information on drinking and feeding practices during diarrhoea. Overall, about one in five of under five children who experienced an episode of diarrhoea in the last two weeks preceding the survey were given more than usual to drink while 44 percent were given about the same. About 25 percent were given somewhat less, but nine percent were given much less than usual.

About four percent of children under five years of age who had an episode of diarrhoea in the last two weeks preceding the survey were given more to eat than usual while 45 percent were given about the same quantity of food. Twenty-eight percent were given somewhat less to eat and 16 percent were given much less during this period.

Table CH.6: Feeding practices during diarrhoea

Percent distribution of children age 0-59 months with diarrhoea in the last two weeks by amount of liquids and food given during episode of diarrhoea, Bungoma County MICS, 2013/14

	Drinking practices during diarrhoea						Eating practices during diarrhoea						Number of children age 0-59 months with diarrhoea in the last two weeks
	Child was given to drink:						Child was given to eat:						
	Much less	Somewhat less	About the same	More	Missing/DK	Total	Much less	Somewhat less	About the same	More	Nothing	Total	
Total	9.1	24.7	43.7	19.5	3.0	100.0	15.9	28.2	45.3	3.7	6.9	100.0	100
Area													
Urban	9.9	30.7	41.7	17.7	0.0	100.0	17.0	31.9	44.1	0.0	7.0	100.0	55
Rural	(8.2)	(17.5)	(46.0)	(21.7)	(6.6)	100.0	(14.6)	(23.7)	(46.8)	(8.1)	(6.7)	100.0	45
Mother's education													
None	(*)	(*)	(*)	(*)	(*)	100.0	(*)	(*)	(*)	(*)	(*)	100.0	1
Primary	12.2	17.8	46.0	19.8	4.3	100.0	15.1	27.9	46.9	5.3	4.9	100.0	70
Secondary+	(2.1)	(42.6)	(35.7)	(19.6)	(0.0)	100.0	(18.5)	(26.1)	(43.4)	(0.0)	(12.0)	100.0	29
Ethnicity of household head													
Luhya	7.6	24.6	44.5	20.0	3.2	100.0	15.4	28.3	45.7	3.5	7.0	100.0	93
Other ethnic group	(*)	(*)	(*)	(*)	(*)	100.0	(*)	(*)	(*)	(*)	(*)	100.0	8
() Figures that are based on 25-49 unweighted cases (*) Figures that are based on fewer than 25 unweighted cases													

Table CH.7 shows the percentage of children age 0-59 months with diarrhoea in the last two weeks preceding the survey, who received oral rehydration salts (ORS), recommended homemade fluids, and zinc during an episode of diarrhoea. Since children may have been given more than one type of liquid, the percentages do not necessarily add to 100. About 40 percent received fluids from ORS packets or pre-packaged ORS fluids and 76 percent received recommended homemade fluids (cereal gruel – uji; fresh fruit juice; soups; fresh or fermented milk). Approximately 83 percent of children with diarrhoea received one or more of the recommended home treatments (i.e., were treated with ORS or any recommended homemade fluid), while 14 percent received zinc. In addition, 13 percent received ORS and zinc.

Table CH.7: Oral rehydration solutions, recommended homemade fluids, and zinc

Percentage of children age 0-59 months with diarrhoea in the last two weeks, and treatment with oral rehydration salts (ORS), recommended homemade fluids, and zinc, Bungoma County MICS, 2013/14

	Percentage of children with diarrhoea who received:												Number of children age 0-59 months with diarrhoea in the last two weeks	
	Oral rehydration salts (ORS)			Recommended homemade fluids					Zinc					
	Fluid from packet	Pre-packaged fluid	Any ORS	Cereal Gruel(Uji)	Fresh or Fermented Milk	Fresh fruit juices	Soups	Any recommended homemade fluid	ORS or any recommended homemade fluid	Tablet	Syrup	Any zinc		ORS and zinc ¹
Total	34.7	15.5	40.3	46.6	20.1	13.9	49.6	75.5	82.5	12.7	2.3	14.4	13.1	100
Area														
Urban	36.0	14.4	39.9	61.1	20.6	16.2	46.2	84.1	91.4	15.9	1.8	17.7	17.7	55
Rural	(33.1)	(16.8)	(40.7)	(28.9)	(19.5)	(11.2)	(53.8)	(65.1)	(71.7)	(9.0)	(2.8)	(10.4)	(7.6)	45
Ethnicity of household head														
Luhya	36.4	16.8	42.5	48.0	17.5	12.8	50.6	75.9	83.5	12.7	2.4	14.4	13.1	93
Other ethnic group	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	8
¹ MICS indicator 3.11 - Diarrhoea treatment with oral rehydration salts (ORS) and zinc														
() Figures that are based on 25-49 unweighted cases (*) Figures that are based on fewer than 25 unweighted cases														

Table CH.8 provides the proportion of children age 0-59 months with diarrhoea in the last two weeks preceding the survey who received oral rehydration therapy with continued feeding, and the percentage of children with diarrhoea who received other treatments. Overall, 49 percent of children with diarrhoea received ORS or increased fluids, 96 percent received ORT (ORS or recommended homemade fluids or increased fluids). Combining the information in Table CH.6 with that of Table CH.7 on oral rehydration therapy, it is observed that 75 percent of children received ORT and, at the same time, feeding was continued, as is recommended. Table CH.8 also shows the percentage of children having had diarrhoea in the two weeks preceding the survey who were given various forms of treatment, leaving 14 percent of them without any treatment or drug.

Table CH.9 provides information on the source of ORS and zinc for children who benefitted from these treatments.⁴⁹

⁴⁹ Detailed description of table was not done due to the limited number of cases reported.

Table CH.8: Oral rehydration therapy with continued feeding and other treatments

Percentage of children age 0-59 months with diarrhoea in the last two weeks who were given oral rehydration therapy with continued feeding and percentage who were given other treatments, Bungoma Count MICS, 2013/14

	Children with diarrhoea who were given:															Number of children age 0-59 months with diarrhoea in the last two weeks
					Other treatments											
					Pill or syrup				Injection							
	Zinc	ORS or increased fluids	ORT (ORS or recommended homemade fluids or increased fluids)	ORT with continued feeding ¹	Anti-biotic	Anti-motility	Other	Unknown	Anti-biotic	Non-antibiotic	Unknown	Intra-venous	Home remedy, herbal medicine	Other	Not given any treatment or drug	
Total	14.4	49.4	83.1	67.6	8.6	2.8	.9	2.6	3.3	0.0	0.0	1.1	2.1	9.6	14.2	100
Area																
Urban	17.7	48.0	92.5	69.3	10.6	5.1	1.6	3.9	1.1	0.0	0.0	1.9	3.0	7.0	6.1	55
Rural	(10.4)	(51.0)	(71.7)	(65.6)	(6.1)	(0.0)	(0.0)	(0.9)	(5.9)	(0.0)	(0.0)	(0.0)	(1.0)	(12.7)	(24.1)	45
Ethnicity of household head																
Luhya	14.4	52.4	84.2	69.1	7.4	3.0	1.0	1.2	3.5	0.0	0.0	1.1	2.3	9.4	13.8	93
Other ethnic group	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	8
¹ MICS indicator 3.12 - Diarrhoea treatment with oral rehydration therapy (ORT) and continued feeding																
() Figures that are based on 25-49 unweighted cases																
(*) Figures that are based on fewer than 25 unweighted cases																

Table CH.9: Source of ORS and zinc

Percentage of children age 0-59 months with diarrhoea in the last two weeks who were given ORS, and percentage given zinc, by the source of ORS and zinc, Bungoma County MICS, 2013/14

	Percentage of children who were given as treatment for diarrhoea:		Number of children age 0-59 months with diarrhoea in the last two weeks	Percentage of children for whom the source of ORS was:			Number of children age 0-59 months who were given ORS as treatment for diarrhoea in the last two weeks	Percentage of children for whom the source of zinc was:			Number of children age 0-59 months who were given zinc as treatment for diarrhoea in the last two weeks
				Health facilities or providers				Health facilities or providers			
	ORS	zinc	Public	Private	A health facility or provider ^b	Public	Private	A health facility or provider ^b			
Total	40.3	14.4	100	(88.2)	(11.8)	100.0	40	(*)	(*)	100.0	14

^a Community health provider includes both public (*Community health worker and Mobile/Outreach clinic*) and private (*Mobile clinic*) health facilities⁵⁰

^b Includes all public and private health facilities and providers

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

⁵⁰Category for community health provider was removed due to small number of cases recorded

5.3.2 Acute Respiratory Infections (ARI)

Symptoms of ARI were collected during the Bungoma County MICS to capture pneumonia disease, which is a leading cause of death in children under-5 years. Once diagnosed, pneumonia is treated effectively with antibiotics. Studies have shown a limitation in the survey approach of measuring pneumonia because many of the suspected cases identified through surveys are in fact, not true pneumonia.⁵¹ While this limitation does not affect the level and patterns of care-seeking for suspected pneumonia, it limits the validity of the level of treatment of pneumonia with antibiotics, as reported through household surveys.

Mothers' knowledge of danger signs is an important determinant of care-seeking behaviour. In the MICS, mothers or caretakers were asked to report symptoms that would cause them to take a child under-five years for care immediately at a health facility. Issues related to knowledge of danger signs of pneumonia are presented in Table CH.10. Overall, 46 percent of women know at least one of the two danger signs of pneumonia – fast and/or difficult breathing. The most commonly identified symptom for taking a child to a health facility is when the child develops a fever (90 percent): fast breathing (29 percent), and difficult breathing (33 percent).

In urban areas, 51 percent of the mothers or caretakers of children under five years of age recognize at least one of the two danger signs of pneumonia. In rural areas, the percentage is 42. A higher percentage of mothers and caretakers (90 percent or more) indicated that they would take a child immediately to a health facility if the child developed a fever compared to the other symptoms. This was the case irrespective of area of residence and education level of the respondent.

⁵¹Campbell, H. et al. 2013. *Measuring Coverage in MNCH: Challenges in Monitoring the Proportion of Young Children with Pneumonia Who Receive Antibiotic Treatment*. PLoS Med 10(5): e1001421. doi:10.1371/journal.pmed.1001421

Table CH.10: Knowledge of the two danger signs of pneumonia

Percentage of women age 15-49 years who are mothers or caretakers of children under age 5 by symptoms that would cause them to take a child under age 5 immediately to a health facility, and percentage of mothers who recognize fast or difficult breathing as signs for seeking care immediately, Bungoma County MICS, 2013/14

	Percentage of mothers/caretakers of children age 0-59 months who think that a child should be taken immediately to a health facility if the child:								Mothers/caretakers who recognize at least one of the two danger signs of pneumonia (fast and/or difficult breathing)	Number of women age 15-49 years who are mothers/caretakers of children under age 5
	Is not able to drink or breastfeed	Becomes sicker	Develops a fever	Has fast breathing	Has difficult breathing	Has blood in stool	Is drinking poorly	Has other symptoms		
Total	34.8	33.6	90.4	29.2	33.2	24.7	24.0	44.1	46.2	569
Area										
Urban	37.7	36.6	89.8	32.8	40.1	32.9	22.7	39.0	50.8	253
Rural	32.5	31.1	90.8	26.3	27.8	18.1	25.0	48.2	42.4	315
Education										
None	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	11
Primary	32.4	34.4	89.8	31.9	32.8	25.2	24.3	42.3	47.7	340
Secondary+	39.3	32.0	91.5	25.2	35.1	25.0	24.5	48.6	44.5	218
Wealth index quintile										
Poorest	31.5	31.3	92.1	30.7	29.8	23.5	25.5	48.3	45.5	114
Second	39.3	35.3	88.9	35.5	34.0	21.9	26.8	42.7	52.2	122
Middle	33.9	29.6	90.2	20.5	33.0	21.8	23.9	46.6	38.0	108
Fourth	34.5	37.1	90.5	35.7	31.2	23.8	21.6	38.7	49.7	107
Richest	34.4	34.5	90.2	23.3	37.9	32.3	21.8	44.0	44.9	117
Ethnicity of household head										
Luhya	34.4	33.0	90.3	29.1	32.5	24.5	23.4	44.1	46.1	506
Other ethnic group	38.1	37.8	90.8	29.9	39.6	26.1	28.5	44.1	47.1	63

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

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

5.3.3 Solid Fuel Use

More than 3 billion people around the world rely on solid fuels for their basic energy needs, including cooking and heating. Solid fuels include biomass fuels, such as wood, charcoal, crops or other agricultural waste, dung, shrubs and straw, and coal. Cooking and heating with solid fuels leads to high levels of indoor smoke which contains a complex mix of health-damaging pollutants. The main problem with the use of solid fuels is their incomplete combustion, which produces toxic elements such as carbon monoxide, polyaromatic hydrocarbons, and sulphur dioxide (SO₂), among others. Use of solid fuels increases the risks of incurring acute respiratory illness, pneumonia, chronic obstructive lung disease, cancer, and possibly tuberculosis, asthma, or cataracts, and may contribute to low birth weight of babies born to pregnant women exposed to smoke. The primary indicator for monitoring use of solid fuels is the proportion of the population using solid fuels as the primary source of domestic energy for cooking, shown in Table CH.11.

Overall, the majority (96 percent) of the household population in Bungoma County uses solid fuels for cooking, consisting mainly of wood (77 percent). Use of solid fuels in urban areas (95 percent) is equally

high as in rural areas (97 percent). Likewise, no major differentials are noted when assessing use of solid fuels by the educational level of the household head (none, 99 percent; primary education, 98 percent; secondary or higher, 94 percent). With respect to household wealth, the use of solid fuels decreases from 100 percent for poorest households to 87 percent for those in the richest households.

Table CH.11: Solid fuel use

Percent distribution of household members according to type of cooking fuel mainly used by the household, and percentage of household members living in households using solid fuels for cooking, Bungoma County MICS, 2013/14

	Percentage of household members in households mainly using:												Total	Solid fuels for cooking ¹	Number of household members
	Electricity	Liquefied Petroleum Gas (LPG)	Natural Gas	Biogas	Kerosene	Solid fuels						No food cooked in the household			
						Coal/Lignite	Char-coal	Wood	Straw/Shrubs/Grass	Agricultural crop residue	Other fuel				
Total	0.1	1.3	0.3	0.4	1.6	0.2	18.0	76.9	0.9	0.1	0.0	0.2	100.0	96.1	5,983
Area															
Urban	0.2	2.2	0.3	0.7	1.1	0.1	25.0	69.3	0.5	0.1	0.0	0.5	100.0	94.9	2,697
Rural	0.0	0.6	0.2	0.1	2.0	0.3	12.3	83.1	1.3	0.0	0.1	0.1	100.0	97.1	3,286
Education of household head															
None	0.0	0.1	0.0	0.0	0.7	0.0	14.4	83.8	0.5	0.0	0.0	0.5	100.0	98.7	466
Primary	0.0	0.1	0.1	0.0	1.7	0.4	12.7	83.5	1.0	0.1	0.1	0.2	100.0	97.7	2,815
Secondary+	0.2	2.7	0.4	0.8	1.7	0.1	24.5	68.4	0.9	0.0	0.0	0.2	100.0	93.9	2,649
Missing/DK	0.0	0.0	0.0	0.0	0.0	0.0	15.0	85.0	0.0	0.0	0.0	0.0	100.0	100.0	53
Wealth index quintile															
Poorest	0.0	0.0	0.0	0.0	0.1	0.0	.2	98.3	1.4	0.0	0.0	0.0	100.0	99.8	1,196
Second	0.0	0.0	0.0	0.0	0.1	0.0	5.4	93.6	0.4	0.3	0.0	0.1	100.0	99.7	1,199
Middle	0.0	0.1	0.0	0.0	0.4	0.0	9.2	89.6	0.5	0.0	0.0	0.2	100.0	99.3	1,192
Fourth	0.0	0.0	0.0	0.0	4.7	0.9	22.0	69.6	2.1	0.0	0.2	0.5	100.0	94.6	1,199
Richest	0.5	6.3	1.3	1.9	2.6	0.2	53.4	33.3	0.2	0.0	0.0	0.4	100.0	87.0	1,198
Ethnicity of household head															
Luhya	0.1	0.8	0.3	0.3	1.5	0.2	15.8	79.8	1.0	0.0	0.0	0.2	100.0	96.8	5,394
Other ethnic group	0.2	6.1	0.1	0.6	2.9	0.1	38.9	49.7	0.0	0.6	0.0	0.8	100.0	89.3	587

¹ MICS indicator 3.15 - Use of solid fuels for cooking

Solid fuel use by place of cooking is depicted in Table CH.12. The presence and extent of indoor pollution are dependent on cooking practices, places used for cooking, as well as types of fuel used. According to the Bungoma County MICS, 30 percent of the population living in households using solid fuels for cooking, cook food in a separate room that is used as a kitchen. The percentage that had food cooked in a separate room used as a kitchen within the dwelling unit is higher in urban (34 percent) than in rural areas (26 percent).

Table CH.12: Solid fuel use by place of cooking

Percent distribution of household members in households using solid fuels by place of cooking, Bungoma County MICS, 2013/14

	Place of cooking:					Number of household members in households using solid fuels for cooking
	In the house		In a separate building	Outdoors	Total	
	In a separate room used as kitchen	Elsewhere in the house				
Total	29.9	16.5	49.8	3.8	100.0	5,750
Area						
Urban	34.2	22.1	38.5	5.3	100.0	2,561
Rural	26.4	12.0	58.9	2.6	100.0	3,189
Education of household head						
None	29.7	20.0	49.0	1.3	100.0	460
Primary	29.4	18.7	47.3	4.6	100.0	2,751
Secondary+	30.7	13.6	52.2	3.5	100.0	2,486
Wealth index quintile						
Poorest	24.4	22.2	46.8	6.6	100.0	1,194
Second	28.8	12.8	56.0	2.4	100.0	1,196
Middle	23.0	15.0	57.5	4.5	100.0	1,183
Fourth	35.2	14.7	47.8	2.3	100.0	1,134
Richest	39.3	17.8	39.8	3.1	100.0	1,043
Ethnicity of household head						
Luhya	29.7	14.9	51.5	3.9	100.0	5,224
Other ethnic group	31.8	32.2	33.0	2.9	100.0	524

5.3.4 Malaria/Fever

Malaria is a major cause of death of children under five years worldwide. In Kenya, malaria accounts for about 31 percent of outpatient consultations and five percent of hospital admissions.⁵²The results of the Kenya Malaria Indicator Survey 2010 showed that children aged 5–14 years had the highest prevalence of malaria (13 percent). The prevalence in children below five years increased from four percent in 2007 to eight percent in 2010. Malaria prevalence was also nearly three times as high in rural areas (12 percent)

⁵² President's Malaria Initiative – Kenya Malaria Operational Plan FY 2014

as in urban areas (5 percent).⁵³ Malaria transmission and infection risk in Kenya is determined largely by altitude, rainfall patterns and temperature. Preventive measures and treatment with an effective antimalarial can dramatically reduce malaria mortality rates among children.

In areas where malaria is common, WHO recommends indoor residual spraying (IRS), use of insecticide treated bednets (ITNs) and prompt treatment of cases with recommended anti-malarial drugs.

In 2010 the WHO issued a recommendation for universal use of diagnostic testing to confirm malaria infection and apply appropriate treatment based on the results. According to the guidelines, treatment solely on the basis of clinical suspicion should only be considered when a parasitological diagnosis is not accessible. This recommendation was based on studies that showed substantial reduction in the proportion of fever that are associated with malaria to a low level.⁵⁴ This recommendation implies that the indicator on proportion of children with fever that received antimalarial treatment is no longer an acceptable indicator of the level of treatment of malaria in the population of children under age five. However, as it remains the MDG indicator and for purposes of comparisons, as well as assessment of patterns across socio-demographic characteristics, the indicator remains a standard MICS indicator.

Children with severe malaria symptoms, such as fever and convulsions, should be taken to a health facility. Further, children recovering from malaria should be given extra liquids and food, and younger children should continue breastfeeding.

In Kenya, the Division of Malaria Control (DOMC) and President's Malaria Initiative (PMI), have put in place the following interventions for malaria control and case management: indoor residual spraying (IRS); distribution of insecticide-treated nets; intermittent preventive treatment of pregnant women (IPTp); provision of prompt diagnosis and effective treatment at all levels of the health care system; advocacy, communication and social mobilisation through Behaviour Change Communication (BCC); monitoring and evaluation; and health systems strengthening and integration. The Malaria Control Programme is guided by the National Malaria Communication Strategy 2010 – 2013; Kenya National Malaria Strategy 2009 – 2017: Towards a Malaria-free Kenya; and the National Guidelines for the Diagnosis, Treatment and Prevention of Malaria in Kenya 2010.

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

⁵³Division of Malaria Control [Ministry of Public Health and Sanitation], Kenya National Bureau of Statistics, and ICF Macro. 2011. *2010 Kenya Malaria Indicator Survey*. Nairobi, Kenya: DOMC, KNBS and ICF Macro.

⁵⁴D'Acremont, V et al. 2010. *Reduction in the proportion of fevers associated with Plasmodium falciparum parasitaemia in Africa: a systematic review*. *Malaria Journal* 9(240).

In Bungoma County, the survey results indicate that 78 percent of households had at least one insecticide treated net (Table CH.13), and 45 percent had at least one ITN for every two household members. Further, one percent of households received indoor residual spraying during the last 12 months, and 78 percent had at least one ITN for every two household members and/or received IRS during the last 12 months.

Table CH.13: Household availability of insecticide treated nets and protection by a vector control method

Percentage of households with at least one mosquito net, one insecticide treated net (ITN), and one long-lasting treated net, percentage of households with at least one mosquito net, one insecticide treated net (ITN) per two people, and one long-lasting treated net, percentage of households with at least one ITN and/or indoor residual spraying (IRS) in the last 12 months, and percentage of households with at least one ITN per two people and/or with indoor residual spraying (IRS) in the last 12 months, Bungoma County MICS, 2013/14

	Percentage of households with at least one mosquito net:			Percentage of households with at least one net for every two persons ² :			Percentage of households with IRS in the past 12 months	Percentage of households with at least one ITN and/or IRS during the last 12 months ³	Percentage of households with at least one ITN for every 2 persons and/or received IRS during the last 12 months ⁴	Number of households
	Any mosquito net	Insecticide treated mosquito net (ITN) ¹	Long-lasting insecticidal treated net (LLIN)	Any mosquito net	Insecticide treated mosquito net (ITN) ²	Long-lasting insecticidal treated net (LLIN)				
Total	82.8	78.0	76.3	47.7	44.5	43.6	1.4	78.4	45.4	1,246
Area										
Urban	83.0	76.4	74.6	50.9	47.1	46.3	1.6	77.0	47.9	614
Rural	82.6	79.6	78.0	44.5	41.9	41.1	1.3	79.7	42.9	632
Education of household head										
None	70.7	67.1	61.8	47.2	44.9	42.5	0.4	67.1	44.9	123
Primary	79.4	73.5	71.9	37.7	33.2	32.2	1.8	74.1	34.7	565
Secondary+	89.0	85.0	84.1	58.3	56.1	55.8	1.3	85.3	56.7	553
Wealth index quintile										
Poorest	73.6	69.3	68.6	30.0	28.7	28.2	0.8	69.9	29.6	246
Second	76.0	71.8	70.7	38.2	34.4	33.8	0.9	71.8	35.3	226
Middle	83.1	76.7	74.0	42.4	37.7	37.0	1.7	76.9	39.2	233
Fourth	86.0	81.4	79.1	52.2	49.2	47.7	2.2	82.4	50.6	256
Richest	93.1	88.4	86.9	70.6	67.3	66.5	1.4	88.5	67.5	285
Ethnicity of household head										
Luhya	82.9	77.9	76.2	46.4	42.9	42.1	1.1	78.2	43.6	1,091
Other ethnic group	82.3	78.5	77.3	57.0	55.4	54.7	3.9	80.3	58.4	154

¹ MICS indicator 3.16a - Household availability of insecticide-treated nets (ITNs) - One+

² MICS indicator 3.16b - Household availability of insecticide-treated nets (ITNs) - One+ per 2 people

³ MICS indicator 3.17a - Households covered by vector control - One+ ITNs

⁴ MICS indicator 3.17b - Households covered by vector control - One+ ITNs per 2 people

^a The numerators are based on number of usual (de jure) household members and does not take into account whether household members stayed in the household last night. MICS does not collect information on visitors to the household

Tables CH.14 and CH.15 provide further insight on access to ITNs. Overall, 21 percent of individuals are estimated to have access to ITNs, i.e. they could sleep under an ITN if each ITN in the household was used by two people. Access is slightly higher in urban (23 percent) than in rural (20 percent) areas. Access to an ITN ranges from nine percent in the poorest households to 42 percent in the richest households.

Table CH.14: Access to an insecticide treated net (ITN) - number of household members

Percentage of household population with access to an ITN in the household, Bungoma County MICS, 2013/14												
	Number of ITNs owned by household:									Total	Percentage with access to an ITN ^a	Number of household members ^b
	0	1	2	3	4	5	6	7	8 or more			
Total	22.0	22.3	25.3	22.6	5.1	1.3	1.2	0.1	0.2	100.0	21.1	5,983
Number of household members												
1	33.2	60.2	4.6	1.0	0.5	0.0	0.5	0.0	0.0	100.0	66.8	145
2	16.6	35.2	39.9	8.2	0.0	0.0	0.0	0.0	0.0	100.0	48.2	229
3	29.7	29.9	18.7	18.4	3.4	0.0	0.0	0.0	0.0	100.0	40.5	495
4	22.0	16.4	37.4	19.3	4.9	0.0	0.0	0.0	0.0	100.0	24.3	731
5	18.2	12.8	31.8	29.8	6.1	1.1	0.2	0.0	0.0	100.0	37.2	901
6	16.1	8.7	29.9	35.3	5.7	2.1	2.2	0.0	0.0	100.0	9.9	910
7	18.1	14.0	24.0	30.4	10.0	0.0	3.5	0.0	0.0	100.0	13.5	850
8 or more	21.0	9.4	17.3	32.5	8.6	6.3	3.2	0.3	1.4	100.0	8.0	1,723
^a Percentage of household population who could sleep under an ITN if each ITN in the household were used by up to two people												
^b The denominator is number of usual (de jure) household members and does not take into account whether household members stayed in the household last night. MICS does not collect information on visitors to the household												

Table CH.15: Access to an insecticide treated net (ITN) - background characteristics		
Percentage of household population with access to an ITN in the household, Bungoma County MICS, 2013/14		
	Percentage with access to an ITN ^a	Number of household members ^b
Total	21.1	5,983
Area		
Urban	22.9	2,697
Rural	19.6	3,286
Wealth index quintile		
Poorest	8.7	1,196
Second	14.3	1,199
Middle	17.0	1,192
Fourth	23.8	1,199
Richest	41.8	1,198
Ethnicity of household head		
Luhya	20.3	5,394
Other ethnic group	29.1	587
^a Percentage of household population who could sleep under an ITN if each ITN in the household were used by up to two people		
^b The denominator is number of usual (de jure) household members and does not take into account whether household members stayed in the household last night. MICS does not collect information on visitors to the household		

Overall, 82 percent of ITNs were used during the night preceding the survey (Table CH.16). The percentage of ITNs used by anyone the night preceding the survey is slightly higher in rural areas (84 percent) than in urban areas (79 percent).

Table CH.16: Use of ITNs

Percentage of insecticide treated nets (ITNs) that were used by anyone last night, Bungoma County MICS, 2013/14

	Percentage of ITNs used last night	Number of ITNs
Total	81.8	2,207
Area		
Urban	79.2	1,046
Rural	84.2	1,161
Wealth index quintile		
Poorest	78.7	320
Second	81.8	340
Middle	84.5	411
Fourth	81.4	514
Richest	82.1	622
Ethnicity of household head		
Luhya	82.0	1,950
Other ethnic group	80.3	257

As for children under the age of five years, who constitute an important vulnerable group, 63 percent slept under an ITN the night preceding the survey (Table CH.17). This figure increased to 77 percent considering only children living in a household with at least one ITN. Disparities by sex in ITN use among children under five years are noted. The percentage of boys who slept under an ITN the night before the survey was higher than the percentage of girls (67 compared to 59 percent). Similarly, in households with at least one ITN, a higher proportion of boys (82 percent) slept under an ITN, compare to girls (73 percent). Some differences are also apparent in regard to the education level of the mother, and household wealth, with the proportion of children sleeping under an ITN being higher among children of mothers with secondary or higher education (74 percent) compared to children of mothers with primary education (58 percent), and among children in the richer households. A higher proportion of children age 0-11 months (74 percent) slept under an ITN the night before the survey, with lower proportions for children 12 months and older.

Table CH.17: Children sleeping under mosquito nets

Percentage of children age 0-59 months who slept under a mosquito net last night, by type of net, Bungoma County MICS, 2013/14

Percentage of children age 0-59 who spent last night in the interviewed households	Number of children age 0-59 months	Percentage of children under age five who the previous night slept under:				Number of children age 0-59 months who spent last night in the interviewed households	Percentage of children 0-59 months who slept under an ITN last night in households with at least one ITN	Number of children age 0-59 living in households with at least one ITN
		Any mosquito net	An insecticide treated net (ITN) ¹	A Long-lasting insecticidal net (LLIN)	An ITN or in a dwelling sprayed with IRS in the past 12 months			
98.9	846	68.1	62.9	61.6	63.3	837	77.3	681

Sex									
Male	99.1	414	71.3	66.8	65.2	67.1	410	81.6	335
Female	98.7	432	64.9	59.3	58.1	59.6	427	73.2	346
Area									
Urban	98.8	376	68.0	61.1	59.4	61.4	372	77.2	294
Rural	98.9	470	68.2	64.4	63.4	64.7	465	77.4	387
Age									
0-11 months	99.6	167	76.7	73.7	71.5	74.0	167	84.9	145
12-23 months	98.2	152	65.9	60.8	59.8	61.1	149	78.2	116
24-35 months	100.0	160	71.0	66.4	66.4	67.0	160	81.2	131
36-47 months	99.0	215	63.3	54.2	52.1	54.7	213	68.8	168
48-59 months	97.3	152	64.2	61.7	60.7	61.7	148	75.2	122
Mother's education									
None	(100.0)	34	(*)	(*)	(*)	(*)	(*)	(*)	20
Primary	98.8	514	64.7	58.3	57.3	58.5	508	72.8	406
Secondary+	99.0	298	76.6	73.5	72.7	73.9	295	85.0	255
Wealth index quintile									
Poorest	99.8	199	56.2	51.7	51.7	52.4	199	72.1	143
Second	99.7	184	62.9	58.6	58.1	58.8	184	75.5	143
Middle	99.1	162	66.5	59.2	56.1	59.2	161	69.9	136
Fourth	96.0	157	80.6	77.7	75.5	78.3	151	87.7	133
Richest	99.5	143	79.8	72.9	71.5	72.9	143	82.5	126
Ethnicity of household head									
Luhya	98.8	762	68.5	63.0	61.6	63.1	753	77.2	614
Other ethnic group	99.5	84	64.0	63.1	61.6	65.1	83	78.9	67
¹ MICS indicator 3.18; MDG indicator 6.7 - Children under age 5 sleeping under insecticide-treated nets (ITNs)									
() Figures that are based on 25-49 unweighted cases									
(*) Figures that are based on fewer than 25 unweighted cases									

Table CH.18 gives further insight into the use of mosquito nets by household members of any age, 57 percent of whom slept under an ITN the night prior to the survey. This figure rises to 71 percent considering only household members living in a household with at least one ITN. Overall, 58 percent of household members slept under an ITN the previous night or in a dwelling which had IRS in the past 12 months. The percentage of household members who slept under an ITN the night prior to the survey is 44 percent in households where the household head had no education, 52 percent for those with primary education, the rate is 65 percent for those with secondary or higher education. Variations are noted by household wealth from 46 percent in poorest households, 56 percent for households in the middle wealth quintile, and 70 percent for those in the richest wealth quintile.

Table CH.18: Use of mosquito nets by the household population

Percentage of household members who slept under a mosquito net last night, by type of net, Bungoma County MICS, 2013/14

	Percentage of household members who the previous night slept under:				Number of household members who spent the previous night in the interviewed households	Percentage of household members who slept under an ITN last night in households with at least one ITN	Number of household members in households with at least one ITN
	Any mosquito net	An insecticide treated net (ITN) ¹	A Long-lasting insecticidal treated net (LLIN)	An ITN or in a dwelling sprayed with IRS in the past 12 months			
Total	60.8	57.0	55.4	57.6	5,742	71.2	4,594
Sex							
Male	58.3	54.7	53.1	55.5	2,689	68.4	2,151
Female	63.1	59.0	57.4	59.5	3,053	73.7	2,443
Area							
Urban	62.2	56.5	54.6	57.2	2,610	72.6	2,031
Rural	59.7	57.4	56.0	57.9	3,132	70.1	2,563
Age							
0-4 ^a	68.6	63.4	62.1	63.8	879	77.8	718
5-14	52.7	49.5	47.9	50.2	1,907	62.6	1,508
15-34	56.6	53.3	51.9	53.9	1,678	66.0	1,356
35-49	74.2	69.6	67.6	70.4	682	84.9	559
50+	72.2	67.1	65.0	67.7	595	88.1	453
Education of household head							
None	46.0	43.5	37.9	43.5	453	63.8	309
Primary	56.6	51.9	50.4	52.8	2,722	67.9	2,080
Secondary+	68.3	65.0	64.0	65.4	2,519	75.7	2,162
Missing/DK	51.1	51.1	51.1	51.1	48	(56.7)	44
Wealth index quintile							
Poorest	48.4	45.5	45.4	46.7	1,151	63.5	825
Second	52.2	48.5	47.7	48.8	1,156	66.4	844
Middle	60.6	56.1	53.7	56.7	1,160	68.8	946
Fourth	68.4	64.8	62.4	65.6	1,156	75.6	990
Richest	75.0	70.4	68.1	70.6	1,118	79.6	989
Ethnicity of household head							
Luhya	60.6	56.6	54.9	56.9	5,167	70.5	4,147
Other ethnic group	62.7	61.0	59.8	64.1	572	78.2	447

¹ MICS indicator 3.19 - Population that slept under an ITN

^a The results of the age group 0-4 years do not match those in Table CH.18, which is based on completed under-5 interviews only. The two tables are computed with different sample weights

Table CH.19 provides information on care-seeking behaviour during an episode of fever in the last two weeks preceding the survey. As shown in Table CH.19, advice was sought from a health facility or a qualified health care provider for 54 percent of children with fever; these services were provided mainly by the public health facility (36 percent). However, no advice or treatment was sought in 33 percent of the cases. Differences are noted by urban and rural areas, 64 percent and 49 percent, respectively.

Table CH.19: Care-seeking during fever							
Percentage of children age 0-59 months with fever in the last two weeks for whom advice or treatment was sought, by source of advice or treatment, Bungoma County MICS, 2013/14							
Percentage of children for whom:							
Advice or treatment was sought from:							
Health facilities or providers							
	Public	Private	Community health provider ^a	Other source	A health facility or provider ^{1, b}	No advice or treatment sought	Number of children with fever in last two weeks
Total	35.5	16.5	0.4	16.8	53.8	33.0	168
Sex							
Male	39.6	16.8	0.7	9.7	52.7	33.9	84
Female	31.4	16.3	0.0	23.8	54.9	32.1	84
Area							
Urban	49.5	15.4	1.1	7.3	63.6	27.8	53
Rural	29.0	17.0	0.0	21.1	49.3	35.5	115
¹ MICS indicator 3.20 - Care-seeking for fever							
^a Community health providers include both public (<i>Community health worker</i> and <i>Mobile/Outreach clinic</i>) and private (<i>Mobile clinic</i>) health facilities							
^b Includes all public and private health facilities and providers as well as shops							

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. Artemisinin-based Combination therapy (ACT) is the first line antimalarial recommended by the WHO and used in the country. In addition, confirmation of malaria is done on all fever cases through a malaria test.

Table CH.20 presents the results of children age 0-59 months who had a fever in the last two weeks preceding the survey, by type of medicine given for the illness. Twenty-three percent of children with fever during this period were treated with an artemisinin-based combination therapy (ACT).

Table CH.20: Treatment of children with fever

Percentage of children age 0-59 months who had a fever in the last two weeks, by type of medicine given for the illness, Bungoma County MICS, 2013/14

	Children with a fever in the last two weeks who were given:													Number of children with fever in last two weeks
	Anti-malarials						Other medications							
	SP/ Fansidar	Chloroquine	Amodia- quine	Quinine	Artemisinin- based Combination Therapy (ACT)	Other anti- malarial	Antibiotic pill or syrup	Antibiotic injection	Paracetamol/ Panadol/ Acetaminophen	Aspirin	Ibuprofen	Other	Missing/DK	
Total	5.2	0.5	1.0	3.9	23.1	14.5	48.2	0.4	60.0	1.9	4.6	15.9	0.8	168
Sex														
Male	2.6	0.0	0.7	5.8	15.2	16.4	52.6	0.0	58.9	2.0	4.4	24.9	1.6	84
Female	7.7	1.0	1.3	1.9	30.9	12.6	43.9	0.9	61.2	1.8	4.8	6.9	0.0	84
Area														
Urban	2.8	0.8	1.1	1.7	17.1	10.7	57.6	0.0	60.2	3.1	7.5	26.2	0.0	53
Rural	6.3	0.4	1.0	4.9	25.8	16.2	43.9	0.7	60.0	1.3	3.3	11.1	1.2	115

Overall, 29 percent of children with a fever in the previous two weeks preceding the survey had blood taken from a finger or heel for testing (Table CH.21). Forty-six percent of children who had fever in the two weeks preceding the survey were treated with any antimalarial drug. Of these, half of them were treated with ACT.

Table CH.21: Diagnostics and anti-malarial treatment of children

Percentage of children age 0-59 months who had a fever in the last two weeks who had a finger or heel stick for malaria testing, who were given Artemisinin-combination Treatment (ACT) and any anti-malarial drugs, and percentage who were given ACT among those who were given anti-malarial drugs, Bungoma County MICS, 2013/14

	Percentage of children who:					Number of children age 0-59 months with fever in the last two weeks	Treatment with Artemisinin-based Combination Therapy (ACT) among children who received anti-malarial treatment ³	Number of children age 0-59 months with fever in the last two weeks who were given any antimalarial drugs
	Had blood taken from a finger or heel for testing ¹	Were given:						
	Artemisinin-combination Treatment (ACT)	ACT the same or next day	Any antimalarial drugs ²	Any antimalarial drugs same or next day				
Total	29.2	23.1	9.5	45.8	26.6	168	50.4	77
Sex								
Male	28.3	15.2	7.0	36.0	23.5	84	(42.2)	30
Female	30.1	30.9	11.9	55.5	29.7	84	(55.7)	47
Area								
Urban	35.9	17.1	10.0	34.3	23.2	53	(*)	18
Rural	26.0	25.8	9.2	51.1	28.2	115	50.5	59
¹ MICS indicator 3.21 - Malaria diagnostics usage								
² MICS indicator 3.22; MDG indicator 6.8 - Anti-malarial treatment of children under age 5								
³ MICS indicator 3.23 - Treatment with Artemisinin-based Combination Therapy (ACT) among children who received anti-malarial treatment								
() Figures that are based on 25-49 unweighted cases								
(*) Figures that are based on fewer than 25 unweighted cases								

Table CH.22 presents the source of antimalarial for children under five years who were treated with an antimalarial.⁵⁵ Treatment was obtained from a health facility or provider in 98 percent of the cases treated with antimalarials, mostly from public health facilities (44 percent), followed by private health facilities (32 percent).

⁵⁵Age of the child and wealth index quintiles were removed from the table due to small number of cases reported.

Table CH.22: Source of anti-malarial								
Percentage of children age 0-59 months with fever in the last two weeks who were given anti-malarial by the source of anti-malarial, Bungoma County MICS, 2013/14								
	Percentage of children who were given anti-malarial	Number of children age 0-59 months with fever in the last two weeks	Percentage of children for whom the source of anti-malarial was:					Number of children age 0-59 months who were given anti-malarial as treatment for fever in the last two weeks
			Health facilities or providers			Community health provider ^a	Other source	
			Public	Private				
Total	45.8	168	44.4	31.8	0.8	22.9	98.3	77
Sex								
Male	36.0	84	(48.3)	(39.7)	(2.0)	(9.7)	(95.7)	30
Female	55.5	84	(41.9)	(26.7)	(0.0)	(31.4)	(100.0)	47
Area								
Urban	34.3	53	(*)	(*)	(*)	(*)	(*)	18
Rural	51.1	115	36.4	34.9	0.0	27.5	97.8	59
Ethnicity of household head								
Luhya	45.7	150	42.7	31.2	0.9	25.1	98.1	68
Other ethnic group	(45.5)	18	(*)	(*)	(*)	(*)	(*)	8
^a Community health providers include both public (<i>Community health worker and Mobile/Outreach clinic</i>) and private (<i>Mobile clinic</i>) health facilities								
^b Includes all public and private health facilities and providers as well as shops								
() Figures that are based on 25-49 unweighted cases								
(*) Figures that are based on fewer than 25 unweighted cases								

Pregnant women living in places where malaria is highly prevalent are highly vulnerable to malaria. Once infected, pregnant women risk anaemia, premature delivery and stillbirth. Their babies are at increased risk of low birth weight, which carries an increased risk of dying in infancy.⁵⁶ For this reason, steps are taken to protect pregnant women by distributing insecticide-treated mosquito nets and mobilizing for their consistent use; and treatment during antenatal check-ups with drugs that prevent malaria infection (Intermittent preventive treatment/IPT). WHO recommends that in areas of moderate-to-high malaria transmission, all pregnant women be provided an intermittent preventive treatment with Sulfadoxine-Pyrimethamine (SP) at every scheduled ANC visit.

In the Bungoma County MICS, women were asked of the medicines they had received to prevent malaria in their last pregnancy during the two years preceding the survey. Women were considered to have received intermittent preventive therapy if they had received at least 3 doses of SP/Fansidar during the pregnancy, at least one of which was taken during ANC.

Table CH.23 presents the proportion of pregnant women who slept under a mosquito net during the previous night. Three quarters of pregnant women slept under any mosquito net the night prior to the survey and 70 percent slept under an insecticide-treated net. The percentage of pregnant women who slept under an ITN increases to 90 percent if we only consider those living in a household with at least one ITN.

⁵⁶Shulman, CE and Dorman, EK. 2003. *Importance and prevention of malaria in pregnancy*. Trans R Soc Trop Med Hyg 97(1): 30–55.

Table CH.23: Pregnant women sleeping under mosquito nets									
Percentage of pregnant women age 15-49 years who slept under a mosquito net last night, by type of net, Bungoma County MICS, 2013/14									
Percentage of pregnant women who spent last night in the interviewed households	Number of pregnant women age 15-49 years	Percentage of pregnant women age 15-49 years who the previous night slept under:				An ITN or in a dwelling sprayed with IRS in the past 12 months	Number of pregnant women who spent last night in the interviewed households	Percentage of pregnant women who slept under an ITN last night in households with at least one ITN	Number of pregnant women age 15-49 years living in households with at least one ITN
		Any mosquito net	An insecticide treated net (ITN) ¹	A Long-lasting insecticidal treated net (LLIN)					
Total	100.0	74	75.9	70.3	70.3	70.3	74	90.1	58

¹ MICS indicator 3.24 - Pregnant women who slept under an insecticide treated net (ITN)

Intermittent preventive treatment for malaria in pregnant women who gave birth in the two years preceding the survey is presented in Table CH.24. Overall, 88 percent of women age 15-49 years who had a live birth during the two years preceding the survey received antenatal care. Three women out of four received any medicine to prevent malaria at any ANC visit during the pregnancy. About 23 percent of the women received SP/Fansidar at least three or more times during an ANC visit. The proportion in urban areas that received SP/Fansidar three or more times during ANC was 31 percent compared to 16 percent in rural areas.

Table CH.24: 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, Bungoma County MICS, 2013/14

	Percentage of women who received antenatal care (ANC)	Number of women with a live birth in the last two years	Percentage of pregnant women:				Number of women with a live birth in the last two years and who received antenatal care	
			Who took any medicine to prevent malaria at any ANC visit during pregnancy	who took SP/Fansidar at least once during an ANC visit and in total took:				
				At least once	Two or more times	Three or more times ¹	Four or more times	
Total	88.3	311	77.5	57.5	41.5	22.9	4.7	274
Area								
Urban	96.0	137	80.8	63.7	45.9	30.6	8.0	131
Rural	82.2	174	74.6	51.9	37.4	15.7	1.8	143
Education								
None	(*)	5	(*)	(*)	(*)	(*)	(*)	4
Primary	85.4	189	73.8	50.7	35.5	16.8	4.3	162
Secondary+	93.1	116	83.4	68.0	51.9	32.8	5.6	108
Wealth index quintile								
Poorest	88.6	68	76.4	59.3	40.4	16.2	2.4	60
Second	83.6	65	(86.9)	(51.1)	(30.6)	(10.3)	(3.7)	54
Middle	88.0	55	(62.2)	(41.4)	(29.4)	(19.3)	(5.7)	48
Fourth	92.1	56	76.5	57.7	45.9	29.4	5.9	51
Richest	89.6	68	83.3	74.3	58.0	38.0	6.2	61
Ethnicity of household head								
Luhya	87.8	272	78.7	57.0	40.6	20.9	3.9	239
Other ethnic group	91.8	39	69.9	61.0	47.1	35.9	10.2	36
¹ MICS indicator 3.25 - Intermittent preventive treatment for malaria								
() Figures that are based on 25-49 unweighted cases								
(*) Figures that are based on fewer than 25 unweighted cases								

6. Water and Sanitation

Safe drinking water is a basic necessity for good health. Unsafe drinking water can be a significant determinant of diseases such as cholera, typhoid, and schistosomiasis. Drinking water can also be contaminated with chemical and physical contaminants with harmful effects on human health. In addition to preventing disease, improved 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.⁵⁷

Inadequate disposal of human excreta and personal hygiene is associated with a range of diseases including diarrhoeal diseases and polio and is an important determinant for stunting. Improved sanitation can reduce diarrheal disease by more than a third⁵⁸, and can significantly lessen the adverse health impacts of other disorders responsible for death and disease among millions of children in developing countries.

The goal of MDG 7 is to reduce by half, between 1990 and 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation.

For more details on water and sanitation and to access some reference documents, please visit data.unicef.org⁵⁹ or the website of the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation.⁶⁰

The Kenya National Water Policy of 2012 was developed in response to the mandate, vision and mission of the ministry responsible for water affairs in the country. The policy takes into account requirements of the Constitution of Kenya 2010⁶¹; the Kenya Vision 2030; the Millennium Development Goals (MDGs), and other national policies and strategies.⁶²

6.1 Use of Improved Water Sources

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

In Bungoma County, 87 percent of the population uses an improved source of drinking water – 96 percent in urban areas and 79 percent in rural areas (Table WS.1). There is a positive correlation between the proportion of the population using an improved source of drinking water and the

⁵⁷WHO/UNICEF. 2012. *Progress on Drinking water and Sanitation: 2012 update*.

⁵⁸Cairncross, S et al. 2010. *Water, sanitation and hygiene for the prevention of diarrhoea*. International Journal of Epidemiology 39: i193-i205

⁵⁹<http://data.unicef.org/water-sanitation>

⁶⁰<http://www.wssinfo.org>

⁶¹Constitution of Kenya of 2010 [Promulgated on 25th August 2010]

⁶²Ministry of Water and Irrigation. 2012. *The National Water Policy 2012*

education level of the head of household. The proportion increases from 81 percent for heads of households with no education, to 86 percent for those with primary education, and further to 89 percent for those with secondary and higher education. There is also a strong correlation between use of piped water and wealth while other ethnic groups use piped water more than the Luhya ethnic group. As shown in Table WS.1 the improved drinking water sources for the population varied by urban/rural area. In urban areas, 49 percent of the population uses drinking water that is from a protected well or spring, 15 percent used piped water into their dwelling or into their yard or plot, 12 percent used piped water from a public tap/stand-pipe, and 15 percent used water from a tubewell/borehole. In rural areas the improved drinking water sources mainly used were protected well/spring (54 percent), tube well/borehole (14 percent) and public tap/standpipe (6 percent).

Table WS.1: Use of improved water sources

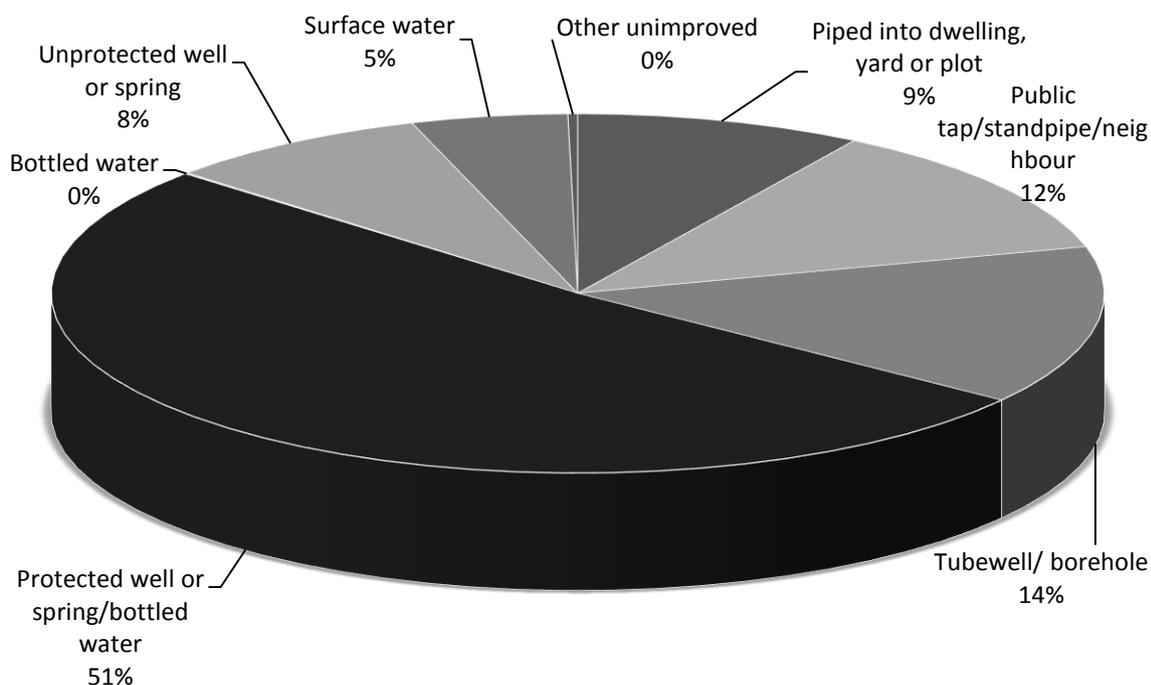
Percent distribution of household population according to main source of drinking water and percentage of household population using improved drinking water sources, Bungoma County MICS, 2013/14

	Main source of drinking water														Percentage using improved sources of drinking water ¹	Number of household members
	Improved sources							Unimproved sources								
	Piped water				Tube-well/ bore-hole	Pro- tected well	Pro- tected spring	Bottled water ^a	Unpro- tected well	Unpro- tected spring	Cart with tank/ drum	Surface water	Other	Total		
	Into dwelling	Into yard/plot	To neighbour	Public tap/ stand-pipe												
Total	3.6	5.2	3.2	8.8	14.3	14.3	37.1	0.1	4.4	3.8	0.1	4.8	0.2	100.0	86.7	5,983
Area																
Urban	6.8	8.6	4.3	12.1	15.2	11.1	37.6	0.1	1.0	2.1	0.2	0.7	0.4	100.0	95.7	2,697
Rural	1.1	2.4	2.3	6.1	13.6	17.0	36.8	0.1	7.3	5.2	0.0	8.2	0.0	100.0	79.3	3,286
Education of household head																
None	0.3	1.5	2.0	10.8	18.2	14.0	34.2	0.0	10.3	3.9	0.0	4.6	0.0	100.0	81.1	466
Primary	1.5	3.3	2.6	9.4	16.5	14.6	37.5	0.2	4.1	4.1	0.0	6.0	0.1	100.0	85.6	2,815
Secondary+	6.5	7.9	3.8	8.0	11.6	13.0	37.8	0.1	3.8	3.5	0.2	3.6	0.2	100.0	88.6	2,649
Wealth index quintile																
Poorest	0.0	0.0	0.2	4.4	15.2	9.4	52.3	0.0	5.3	7.0	0.0	6.0	0.0	100.0	81.6	1,196
Second	0.0	0.0	0.5	6.6	18.7	15.9	45.9	0.0	5.3	4.3	0.0	2.8	0.0	100.0	87.6	1,199
Middle	0.5	0.2	3.3	8.6	17.2	13.5	38.3	0.0	7.1	1.9	0.0	9.5	0.0	100.0	81.5	1,192
Fourth	2.8	2.6	6.4	14.7	10.9	22.0	33.8	0.0	1.9	0.1	0.0	4.4	0.3	100.0	93.3	1,199
Richest	14.8	23.1	5.7	9.6	9.5	10.7	15.5	0.5	2.6	5.7	0.4	1.3	0.5	100.0	89.4	1,198
Ethnicity of household head																
Luhya	2.9	3.6	2.9	8.2	15.3	14.7	39.3	0.1	4.7	3.5	0.0	4.7	0.0	100.0	87.1	5,394
Other ethnic group	10.1	19.7	5.9	13.5	5.4	10.7	17.4	0.0	2.0	6.4	0.8	6.2	1.8	100.0	82.7	587

¹ MICS indicator 4.1; MDG indicator 7.8 - Use of improved drinking water sources^aHouseholds 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. There were no cases for bottled water as a source under 'unimproved sources'.

The sources of drinking water used in Bungoma County are depicted in Figure WS.1. The majority of the population (51 percent) used protected wells or springs, followed by tubewells/boreholes (14 percent) and piped water from a public tap/stand-pipe or neighbour (12 percent).

Figure WS.1: Percent distribution of household members by source of drinking water, Bungoma County MICS, 2013/14



Use of household water treatment is presented in Table WS.2. Households were asked about the methods they use to treat water at home to make it safer to drink. Boiling water, adding bleach or chlorine, using a water filter, and using solar disinfection are considered as effective treatment of drinking water. The table shows water treatment by all household members and the percentage of those living in households using unimproved water sources but using appropriate water treatment methods. Sixty-nine percent of household members in households using unimproved drinking water sources are using an appropriate water treatment method (73 percent in rural areas and 45 percent in urban areas). There are no variations by education level of head of household. In Bungoma County, there are no households using solar disinfection for water treatment.

Table WS.2: Household water treatment										
Percentage of household population by drinking water treatment method used in the household, and for household members living in households where an unimproved drinking water source is used, the percentage who are using an appropriate treatment method, Bungoma County MICS, 2013/14										
	Water treatment method used in the household							Number of household members	Percentage of household members in households using unimproved drinking water sources and using an appropriate water treatment method ¹	Number of household members in households using unimproved drinking water sources
	None	Boil	Add bleach/chlorine	Strain through a cloth	Use water filter	Let it stand and settle	Other			
Total	26.9	5.0	34.0	2.5	33.4	0.5	1.8	5,983	68.9	796
Area										
Urban	28.5	8.0	24.2	1.4	40.7	0.5	0.9	2,697	44.8	117
Rural	25.5	2.6	42.0	3.4	27.4	0.6	2.5	3,286	73.1	680
Main source of drinking water										
Improved	26.5	5.2	32.6	2.4	34.6	0.6	2.1	5,187	na	na
Unimproved	29.6	3.8	43.0	3.3	25.7	0.1	0.2	796	68.9	796
Education of household head										
None	19.7	1.7	34.3	1.1	43.8	0.2	0.6	466	69.0	88
Primary	29.9	3.9	30.2	3.1	35.6	0.9	2.1	2,815	68.7	404
Secondary+	25.2	6.9	36.9	2.1	29.9	0.2	1.8	2,649	68.9	301
Missing/DK	15.0	0.0	85.0	0.0	0.0	0.0	0.0	53	(*)	3
Wealth index quintile										
Poorest	32.4	3.6	21.3	0.5	41.9	0.3	0.5	1,196	55.9	220
Second	24.9	4.7	34.2	3.0	38.7	1.5	0.9	1,199	42.4	148
Middle	28.8	1.8	29.3	4.2	37.7	0.0	1.0	1,192	79.5	221
Fourth	24.7	2.7	37.3	4.2	32.3	0.6	4.2	1,199	84.6	80
Richest	23.5	12.1	48.0	0.6	16.4	0.3	2.5	1,198	94.1	127
Ethnicity of household head										
Luhya	25.4	4.6	34.4	2.8	34.7	0.6	2.0	5,394	73.7	695
Other ethnic group	40.5	8.9	30.6	0.0	21.8	0.0	0.5	587	36.5	101
¹ MICS indicator 4.2 - Water treatment										
na: not applicable										
(*) Figures that are based on fewer than 25 unweighted cases										

The amount of time it takes to obtain water is presented in Table WS.3 and the person who usually collects the water in Table WS.4. Note that for Table WS.3, household members using water on premises are also shown in this table and for others, the results refer to one roundtrip from home to drinking water source. Information on the number of trips made in one day was not collected.

Table WS.3 shows that, 23 percent of the household population had the drinking water source on premises. The availability of water on premises is associated with greater use, better family hygiene and better health outcomes. For a water collection round trip of 30 minutes or more it has been observed that households carry progressively less water and are likely to compromise on the minimal

basic drinking water needs of the household.⁶³ For a third of the household population in the survey, the household member takes 30 minutes or more to get to the water source and bring water from an improved water source. About four percent of those using an unimproved drinking water source spend 30 minutes or more per round trip. In rural areas a higher percentage of household members live in households that spend more time in collecting water compared to those in urban areas, especially for drinking water from an unimproved water source.

Table WS.3: Time to source of drinking water

Percent distribution of household population according to time to go to source of drinking water, get water and return, for users of improved and unimproved drinking water sources, Bungoma County MICS, 2013/14

	Time to source of drinking water									Number of household members
	Users of improved drinking water sources				Users of unimproved drinking water sources				Total	
	Water on premises	Less than 30 minutes	30 minutes or more	Missing/DK	Water on premises	Less than 30 minutes	30 minutes or more	Missing/DK		
Total	22.8	29.5	33.4	0.9	3.0	6.4	3.9	0.1	100.0	5,983
Area										
Urban	31.6	29.2	33.4	1.5	0.9	1.4	2.1	0.0	100.0	2,697
Rural	15.6	29.7	33.5	0.5	4.7	10.5	5.4	0.2	100.0	3,286
Education of household head										
None	15.5	29.7	35.9	0.0	5.6	8.3	5.0	0.0	100.0	466
Primary	16.0	32.3	35.6	1.7	0.8	9.3	4.0	0.2	100.0	2,815
Secondary+	31.5	27.0	29.8	0.4	4.8	3.0	3.6	0.0	100.0	2,649
Wealth index quintile										
Poorest	1.4	38.2	39.6	2.4	0.0	13.0	5.4	0.0	100.0	1,196
Second	7.5	34.0	45.3	0.8	1.5	5.5	4.9	0.4	100.0	1,199
Middle	13.1	31.7	35.5	1.2	5.1	9.5	3.9	0.0	100.0	1,192
Fourth	27.4	31.8	34.1	0.0	1.5	2.6	2.6	0.0	100.0	1,199
Richest	64.7	11.6	12.8	0.3	6.7	1.3	2.6	0.0	100.0	1,198
Ethnicity of household head										
Luhya	20.2	30.8	35.1	1.0	3.1	6.0	3.7	0.1	100.0	5,394
Other ethnic group	47.1	16.9	18.7	0.0	1.8	10.4	5.1	0.0	100.0	587

Table WS.4 shows that for the majority of households (78 percent), an adult female usually collected drinking water when the source was not on the premises. Adult men collected water in only 13 percent of cases, while for the rest of the households, female (7 percent) or male children (3 percent) under 15 years collected water.

⁶³Cairncross, S and Cliff, JL. 1987. *Water use and Health in Mueda, Mozambique*. Transactions of the Royal Society of Tropical Medicine and Hygiene 81: 51-4.

Table WS.4: Person collecting water

Percentage of households without drinking water on premises, and percent distribution of households without drinking water on premises according to the person usually collecting drinking water used in the household, Bungoma County MICS, 2013/14

	Percentage of households without drinking water on premises	Number of households	Person usually collecting drinking water					Total	Number of households without drinking water on premises
			Adult woman	Adult man	Female child under age 15	Male child under age 15			
Total	70.0	1,246	77.5	12.5	7.4	2.6	100.0	872	
Area									
Urban	62.0	614	76.9	14.3	6.6	2.2	100.0	380	
Rural	77.8	632	78.0	11.1	8.1	2.9	100.0	492	
Education of household head									
None	80.5	123	68.7	13.6	16.5	1.2	100.0	99	
Primary	78.7	565	81.4	10.0	5.4	3.1	100.0	445	
Secondary+	58.5	553	74.5	15.7	7.5	2.3	100.0	324	
Wealth index quintile									
Poorest	97.5	246	80.2	8.1	7.1	4.6	100.0	240	
Second	90.3	226	86.3	7.3	5.7	0.7	100.0	204	
Middle	79.3	233	74.5	13.8	8.8	3.0	100.0	185	
Fourth	67.2	256	74.0	15.5	8.2	2.4	100.0	172	
Richest	25.0	285	59.5	31.7	8.2	0.6	100.0	71	
Ethnicity of household head									
Luhya	73.9	1,091	77.9	12.0	7.4	2.7	100.0	807	
Other ethnic group	42.0	154	72.3	18.8	7.1	1.7	100.0	65	

6.2 Use of Improved Sanitation

Inadequate disposal of human excreta and personal hygiene are associated with a range of diseases including diarrhoeal diseases and polio and are important determinants of stunting. Improved sanitation can reduce diarrhoeal disease by more than a third,⁶⁴ and can substantially lessen the adverse health impacts of other disorders among millions of children in many countries.

An improved sanitation facility is defined as one that hygienically separates human excreta from human contact. Improved sanitation facilities for excreta disposal include flush or pour flush to a piped sewer system, septic tank, or pit latrine; ventilated improved pit latrine, pit latrine with slab, and use of a composting toilet. The data on the use of improved sanitation facilities in Bungoma County is provided in Table WS.5.

Sixty-seven percent of the population are living in households using improved sanitation facilities (Table WS.5). This percentage is 79 in urban areas and 57 percent in rural areas. In both urban and rural areas, the population primarily uses pit latrines with slabs. One percent practices open defecation (no facility, bush/field).

⁶⁴Cairncross, S. 2010. *Water, sanitation and hygiene for the prevention of diarrhoea*. Int. J. Epidemiology 39: i193-i205.

Table WS.5: Types of sanitation facilities											
Percent distribution of household population according to type of toilet facility used by the household, Bungoma County MICS, 2013/14											
	Type of toilet facility used by household									Number of household members	
	Improved sanitation facility					Unimproved sanitation facility		Open defecation (no facility, bush, field)	Total		
	Flush/Pour flush to:					Pit latrine without slab/open pit	Other				
	Piped sewer system	Septic tank	Pit latrine	Ventilated improved pit latrine	Pit latrine with slab						
Total	1.6	1.8	0.6	4.7	58.3	32.3	0.0	0.7	100.0	5,983	
Area											
Urban	3.6	3.6	0.4	3.1	68.1	20.8	0.1	0.2	100.0	2,697	
Rural	0.0	0.3	0.8	5.9	50.2	41.6	0.0	1.1	100.0	3,286	
Education of household head											
None	0.0	0.0	0.0	2.4	58.0	39.4	0.0	0.2	100.0	466	
Primary	0.3	0.1	0.4	1.4	60.7	36.5	0.0	0.8	100.0	2,815	
Secondary+	3.3	3.7	1.0	7.2	57.0	26.9	0.1	0.7	100.0	2,649	
Wealth index quintile											
Poorest	0.0	0.0	0.0	0.0	64.3	32.7	0.0	3.0	100.0	1,196	
Second	0.0	0.0	0.0	0.0	54.4	45.4	0.0	0.2	100.0	1,199	
Middle	0.0	0.0	0.0	0.6	56.9	42.5	0.0	0.0	100.0	1,192	
Fourth	0.3	0.1	0.2	9.3	65.2	24.4	0.0	0.4	100.0	1,199	
Richest	7.7	8.9	2.9	13.4	50.7	16.3	0.2	0.0	100.0	1,198	
Ethnicity of household head											
Luhya	1.3	1.6	0.6	4.5	58.5	32.8	0.0	0.7	100.0	5,394	
Other ethnic group	4.8	4.0	0.8	6.4	56.4	26.9	0.4	0.4	100.0	587	

The MDGs and the WHO/UNICEF Joint Monitoring Programme (JMP) for Water Supply and Sanitation classify otherwise acceptable sanitation facilities which are public or shared between two or more households as unimproved. Therefore, “use of improved sanitation” is used both in the context of this report and as an MDG indicator to refer to improved sanitation facilities, which are not public or shared.

Data on the use of improved sanitation are presented in Tables WS.6 and WS.7. As many as 17 percent of the household population use an improved toilet facility that is public or shared with other households. Urban household population are more likely to use a shared toilet facility of an improved type than rural households (22 percent and 14 percent, respectively).

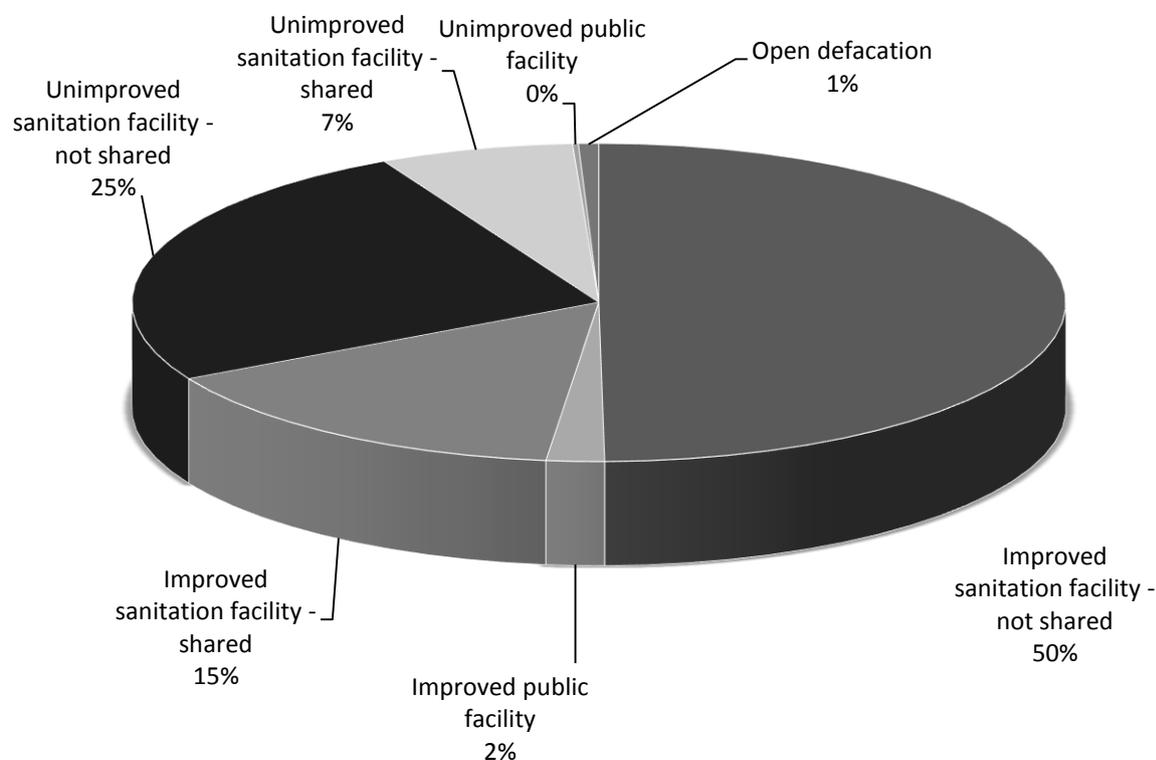
Overall, half of the population use an improved sanitation facility that is not shared. The wealthiest population, those living in urban areas, and those with a head of household with secondary or higher education are more likely to use improved sanitation facilities that are not shared. Figure WS.2 presents the distribution of the survey population by use and sharing of sanitation facilities.

Table WS.6: Use and sharing of sanitation facilities

Percent distribution of household population by use of private and public sanitation facilities and use of shared facilities, by users of improved and unimproved sanitation facilities, Bungoma County MICS, 2013/14

	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		Missing/DK	Not shared	Public facility	Shared by		Missing/DK			
			5 households or less	More than 5 households				5 households or less	More than 5 households				
Total	49.7	2.0	10.7	4.5	0.1	25.3	0.2	4.8	1.9	0.1	0.7	100.0	5,983
Area													
Urban	57.4	1.1	12.7	7.7	0.0	13.7	0.0	4.2	2.9	0.0	0.2	100.0	2,697
Rural	43.3	2.6	9.2	1.9	0.2	34.8	0.4	5.2	1.1	0.1	1.1	100.0	3,286
Education of household head													
None	46.9	0.2	11.5	1.8	0.0	32.4	1.1	4.5	1.5	0.0	0.2	100.0	466
Primary	45.9	2.5	10.0	4.2	0.3	27.8	0.3	5.6	2.6	0.1	0.8	100.0	2,815
Secondary+	53.5	1.8	11.6	5.4	0.0	21.7	0.0	3.9	1.3	0.0	0.7	100.0	2,649
Wealth index quintile													
Poorest	48.4	0.6	12.6	2.1	0.6	25.4	1.0	6.3	0.0	0.0	3.0	100.0	1,196
Second	42.2	0.4	9.0	2.8	0.0	38.5	0.0	4.4	2.2	0.3	0.2	100.0	1,199
Middle	48.0	1.4	5.5	2.6	0.0	36.6	0.1	4.4	1.4	0.0	0.0	100.0	1,192
Fourth	51.6	4.0	13.5	6.1	0.0	16.5	0.0	5.0	2.9	0.0	0.4	100.0	1,199
Richest	58.2	3.4	13.2	8.8	0.0	9.7	0.0	3.6	3.1	0.0	0.0	100.0	1,198
Ethnicity of household head													
Luhya	51.0	1.7	9.7	3.9	0.1	26.5	0.1	4.5	1.6	0.1	0.7	100.0	5,394
Other ethnic group	37.3	4.5	20.8	9.7	0.0	13.9	1.3	6.9	5.2	0.0	0.4	100.0	587
¹ MICS indicator 4.3; MDG indicator 7.9 - Use of improved sanitation													

Figure WS.2: Percent distribution of household members by use and sharing of sanitation facilities, Bungoma County MICS, 2013/14



Having access to both an improved drinking water source and an improved sanitation facility brings the largest public health benefits to a household.⁶⁵ In its 2008 report,⁶⁶ 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 – who revert to open defecation, 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.7 presents the percentages of household population by these drinking water and sanitation ladders. The table also shows the percentage of household members using both improved sources of drinking water⁶⁷ and an improved sanitary means of excreta disposal. The use of improved water

⁶⁵Wolf, J et al. 2014. *Systematic review: Assessing the impact of drinking water and sanitation on diarrhoeal disease in low- and middle-income settings: systematic review and meta-regression*. Tropical Medicine and International Health 2014. DfID. 2013. *Water, Sanitation and Hygiene: Evidence Paper*. DfID: <http://r4d.dfid.gov.uk/pdf/outputs/sanitation/WASH-evidence-paper-april2013.pdf>

⁶⁶WHO/UNICEF JMP. 2008. *MDG assessment report*. http://www.wssinfo.org/fileadmin/user_upload/resources/1251794333-JMP_08_en.pdf

⁶⁷Those indicating bottled water as the main source of drinking water are distributed according to the water source used for other purposes such as cooking and handwashing.

sources is higher in urban than rural areas and improves with the education level of the head of the household.

Half of the household members use improved sanitation while 17 percent use shared improved sanitation facilities. About 45 percent of household population use both improved drinking water sources and improved sanitation facilities (54 percent in urban and 37 percent in rural areas). These results are presented by household wealth quintiles in Figure WS.3 and by urban/rural areas in Figure WS.4.

Table WS.7: Drinking water and sanitation ladders

Percentage of household population by drinking water and sanitation ladders, Bungoma County MICS, 2013/14

	Percentage of household population using:										
	Improved drinking water ^{1, a}				Unimproved sanitation					Improved drinking water sources and improved sanitation	Number of household members
	Piped into dwelling, plot or yard	Other improved	Unimproved drinking water	Total	Improved sanitation ²	Shared improved facilities	Unimproved facilities	Open defecation	Total		
Total	8.9	77.8	13.3	100.0	49.7	17.3	32.3	0.7	100.0	44.5	5,983
Area											
Urban	15.4	80.3	4.3	100.0	57.4	21.5	20.9	0.2	100.0	54.3	2,697
Rural	3.5	75.8	20.7	100.0	43.3	13.9	41.6	1.1	100.0	36.6	3,286
Education of household head											
None	1.9	79.2	18.9	100.0	46.9	13.5	39.4	0.2	100.0	41.0	466
Primary	5.0	80.7	14.4	100.0	45.9	16.9	36.5	0.8	100.0	41.5	2,815
Secondary+	14.4	74.2	11.4	100.0	53.5	18.8	27.0	0.7	100.0	47.6	2,649
Wealth index quintile											
Poorest	0.0	81.6	18.4	100.0	48.4	15.9	32.7	3.0	100.0	42.5	1,196
Second	0.0	87.6	12.4	100.0	42.2	12.2	45.4	0.2	100.0	38.5	1,199
Middle	0.6	80.9	18.5	100.0	48.0	9.5	42.5	0.0	100.0	43.2	1,192
Fourth	5.4	87.9	6.7	100.0	51.6	23.6	24.4	0.4	100.0	47.6	1,199
Richest	38.3	51.1	10.6	100.0	58.2	25.3	16.4	0.0	100.0	50.9	1,198
Ethnicity of household head											
Luhya	6.6	80.5	12.9	100.0	51.0	15.4	32.8	0.7	100.0	45.8	5,394
Other ethnic group	29.8	52.9	17.3	100.0	37.3	35.1	27.2	0.4	100.0	33.3	587
¹ MICS indicator 4.1; MDG indicator 7.8 - Use of improved drinking water sources											
² MICS indicator 4.3; MDG indicator 7.9 - Use of improved sanitation											
^a Those indicating bottled water as the main source of drinking water are distributed according to the water source used for other purposes such as cooking and handwashing.											

Figure WS.3: Use of Improved drinking water sources and Improved sanitation facilities by household members, Bungoma County MICS, 2013/14

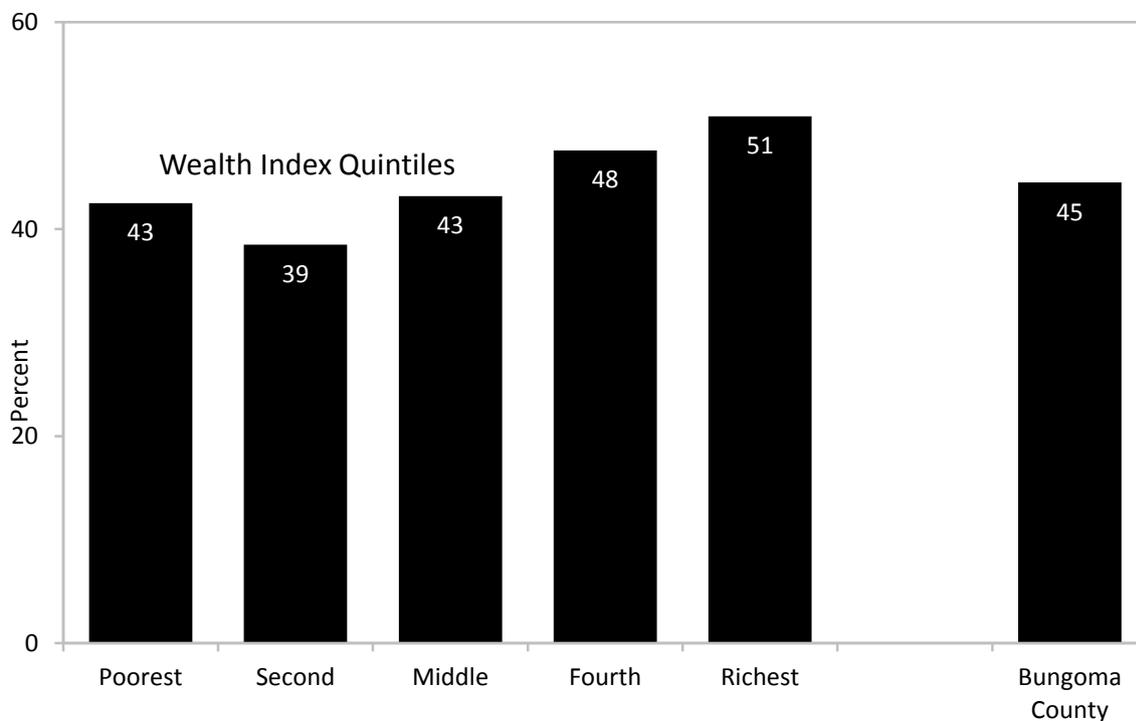
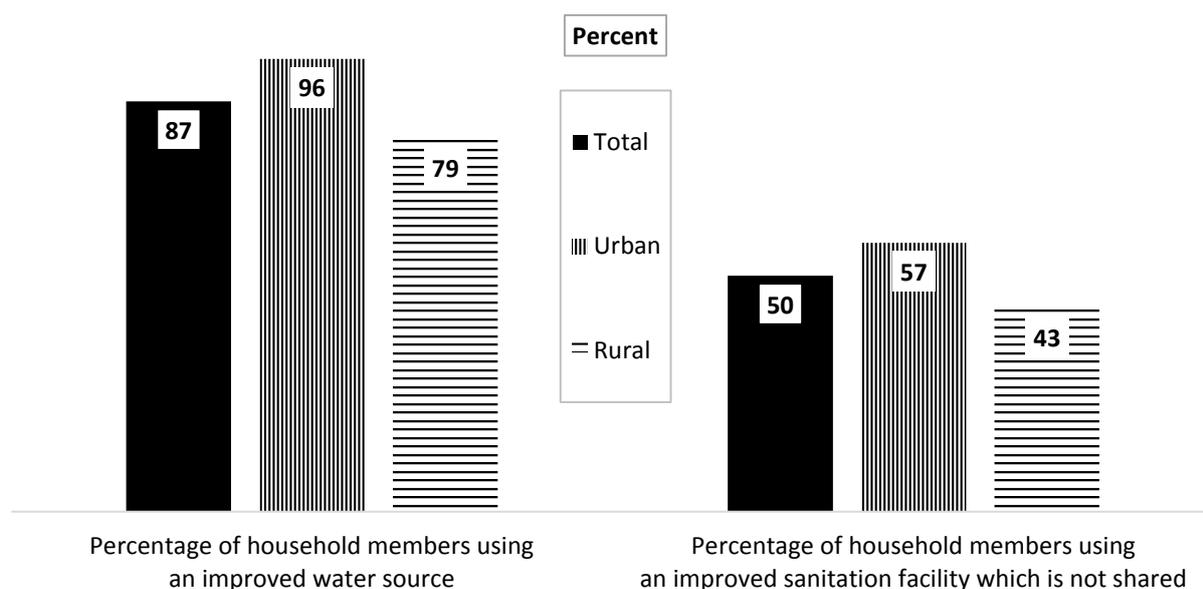


Figure WS.4: Use of Improved water and sanitation in urban and rural areas, Bungoma County, 2013/14



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. Putting disposable diapers with solid waste, a very common practice throughout the world has thus far been classified as an inadequate means of disposal of child faeces for concerns about poor disposal of solid waste itself. This classification is currently under review. Disposal of faeces of children 0-2 years of age is presented in Table WS.8. In 90 percent of the cases, children's stool was disposed of safely (93 percent in urban areas and 87 percent in rural areas).

Table WS.8: Disposal of child's faeces

Percent distribution of children age 0-2 years according to place of disposal of child's faeces, and the percentage of children age 0-2 years whose stools were disposed of safely the last time the child passed stools, Bungoma County MICS, 2013/14

	Place of disposal of child's faeces									Percentage of children whose last stools were disposed of safely ¹	Number of children age 0-2 years
	Child used toilet/latrine	Put/rinsed into toilet or latrine	Put/rinsed into drain or ditch	Thrown into garbage	Buried	Left in the open	Other	Missing/DK	Total		
Total	5.8	83.6	2.1	3.2	3.5	0.6	0.1	1.1	100.0	89.5	484
Type of sanitation facility used by household members											
Improved	3.0	83.2	3.1	4.5	3.9	0.7	0.1	1.5	100.0	86.2	314
Unimproved	11.5	83.8	0.2	0.9	2.8	0.4	0.0	0.5	100.0	95.2	164
Open defecation	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	(*)	6
Area											
Urban	2.4	90.3	0.0	2.4	3.5	0.4	0.0	1.0	100.0	92.7	217
Rural	8.6	78.2	3.8	3.9	3.5	0.7	0.2	1.2	100.0	86.8	267
Mother's education											
None	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	(*)	12
Primary	6.7	80.4	2.9	3.8	3.5	0.9	0.1	1.6	100.0	87.1	291
Secondary+	4.8	87.9	0.8	2.2	3.8	0.0	0.0	0.4	100.0	92.8	180
Wealth index quintile											
Poorest	4.2	84.4	2.3	3.1	3.8	1.6	0.0	0.6	100.0	88.6	115
Second	9.0	77.0	6.0	1.4	3.2	0.9	0.4	2.0	100.0	86.1	101
Middle	9.2	80.1	0.0	3.2	6.3	0.0	0.0	1.2	100.0	89.3	99
Fourth	4.9	82.6	1.7	6.7	3.2	0.0	0.0	0.9	100.0	87.5	83
Richest	1.2	95.5	0.0	1.9	0.6	0.0	0.0	0.8	100.0	96.7	86
Ethnicity of household head											
Luhya	6.4	82.4	2.1	3.2	3.9	0.6	0.0	1.2	100.0	88.9	433
Other ethnic group	0.8	93.9	1.6	2.9	0.0	0.0	0.8	0.0	100.0	94.7	51

¹ MICS indicator 4.4 - Safe disposal of child's faeces

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

6.3 Handwashing

Handwashing with water and soap is the most cost effective health intervention to reduce the incidence of both diarrhoea and pneumonia in children under five.⁶⁸ 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

⁶⁸Cairncross, S and Valdmanis, V. 2006. *Water supply, sanitation and hygiene promotion* Chapter 41 in *Disease Control Priorities in Developing Countries*. 2nd Edition, Edt. Jameson et al. The World Bank.

challenging. A reliable alternative to observations or self-reported behaviour is assessing the likelihood that correct handwashing behaviour takes place by asking if a household has a specific place where people wash their hands and, if yes, observing whether water and soap (or other local cleansing materials) are available at this place.⁶⁹

In Bungoma County, the percentage of households where a place for handwashing was observed is 15 percent. Eighty percent of the households had no specific place for handwashing in the dwelling, yard, or plot, and five percent of the households refused to show the place for handwashing (Table WS.9). The percentage of households where a place for handwashing was observed, and where both water and soap (or another cleansing agent) were present at the place for handwashing, was only five percent. The percentage of households with a specific handwashing place and water (but no soap) present at the place for handwashing, is two percent, while the percentage of households with a handwashing place and soap (but no water), is one percent. Finally, the percentage of households with a place for handwashing, but without neither water nor soap available at the specific place for handwashing, is eight percent. Differentials were observed by urban/rural areas and by education of head of household and wealth category.

⁶⁹Ram, P et al. editors. 2008. *Use of a novel method to detect reactivity to structured observation for measurement of handwashing behavior*. American Society of Tropical Medicine and Hygiene.

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

Percentage of households where place for handwashing was observed, percentage with no specific place for handwashing, and percent distribution of households by availability of water and soap at specific place for handwashing, Bungoma County MICS, 2013/14

	<u>Percentage of households:</u>		Number of households	<u>Place for handwashing observed</u>				No specific place for handwashing in the dwelling, yard, or plot	Total	Percentage of households with a specific place for handwashing where water and soap or other cleansing agent are present ¹	Number of households where place for handwashing was observed or with no specific place for handwashing in the dwelling, yard, or plot
	Where place for handwashing was observed	With no specific place for handwashing in the dwelling, yard, or plot		<u>Water is available and:</u>		<u>Water is not available and:</u>					
				Soap present	<u>No soap:</u> No other cleansing agent present	Soap present	<u>No soap:</u> No other cleansing agent present				
Total	15.1	80.2	1,246	5.4	1.8	1.1	7.5	84.2	100.0	5.4	1,186
Area											
Urban	20.5	78.1	614	7.8	2.3	1.7	9.0	79.2	100.0	7.8	605
Rural	9.8	82.2	632	2.9	1.3	0.6	5.9	89.4	100.0	2.9	582
Education of household head											
None	14.6	76.7	123	6.0	1.1	0.0	8.9	84.0	100.0	6.0	113
Primary	11.9	84.5	565	3.4	1.0	1.4	6.5	87.7	100.0	3.4	545
Secondary+	18.5	76.3	553	7.4	2.8	1.1	8.3	80.5	100.0	7.4	524
Wealth index quintile											
Poorest	10.4	87.4	246	2.1	0.0	1.0	7.5	89.4	100.0	2.1	241
Second	13.4	81.4	226	2.8	1.3	0.0	9.9	85.9	100.0	2.8	214
Middle	14.9	81.9	233	3.8	2.4	3.3	5.9	84.6	100.0	3.8	226
Fourth	15.8	78.7	256	5.1	1.6	0.5	9.5	83.3	100.0	5.1	242
Richest	19.8	72.8	285	12.1	3.5	0.8	5.0	78.6	100.0	12.1	264
Ethnicity of household head											
Luhya	15.1	80.0	1,091	5.1	1.7	1.3	7.9	84.1	100.0	5.1	1,038
Other ethnic group	14.3	81.6	154	7.4	2.3	0.3	4.9	85.1	100.0	7.4	148

¹ MICS indicator 4.5 - Place for handwashing

Table WS.10 presents the percent distribution of households by availability of soap or other cleansing agent in the dwelling. The percentage of households with soap or other cleansing agent anywhere in the dwelling is 71 percent. In households where place of handwashing was observed, two percent were not able or did not want to show soap or other cleansing agent while in households where place of handwashing was not observed, 16 percent of households were not able or were unwilling to show soap or other cleansing agent in the dwelling. The percentage of households with soap or other cleansing agent anywhere in the house was somewhat higher in urban areas (73 percent) than rural areas (68 percent). The percentage was highest for households in the richest wealth quintile (80 percent) compared to the lowest quintile (60 percent).

Table WS.10: Availability of soap or other cleansing agent

Percent distribution of households by availability of soap or other cleansing agent in the dwelling, Bungoma County MICS, 2013/14

	Place for handwashing observed				Place for handwashing not observed				Total	Percentage of households with soap or other cleansing agent anywhere in the dwelling ¹	Number of households
	Soap or other cleansing agent not observed at place for handwashing										
	Soap or other cleansing agent observed	Soap or other cleansing agent shown	No soap or other cleansing agent in household	Not able/Does not want to show soap or other cleansing agent	Soap or other cleansing agent shown	No soap or other cleansing agent in household	Not able/Does not want to show soap or other cleansing agent	Missing/DK			
Total	6.2	6.2	0.7	2.0	58.1	10.4	16.3	0.1	100.0	70.5	1,246
Area											
Urban	9.3	7.5	0.4	3.2	56.2	4.8	18.3	0.2	100.0	73.0	614
Rural	3.2	4.9	1.0	0.7	60.0	15.8	14.4	0.0	100.0	68.1	632
Education of household head											
None	5.5	6.5	0.5	2.0	56.2	19.1	9.2	0.9	100.0	68.2	123
Primary	4.6	5.1	0.1	2.1	56.0	13.9	18.3	0.0	100.0	65.7	565
Secondary+	8.0	7.3	1.4	1.8	60.4	5.0	16.1	0.0	100.0	75.7	553
Wealth index quintile											
Poorest	3.0	5.0	0.0	2.3	52.1	20.5	16.6	0.5	100.0	60.1	246
Second	2.7	6.1	0.6	3.9	55.6	13.4	17.6	0.0	100.0	64.4	226
Middle	6.9	6.6	1.4	0.0	56.3	11.0	17.8	0.0	100.0	69.8	233
Fourth	5.3	6.9	1.5	2.1	63.6	4.2	16.4	0.0	100.0	75.8	256
Richest	11.9	6.2	0.2	1.5	62.0	4.3	13.9	0.0	100.0	80.1	285
Ethnicity of household head											
Luhya	6.0	6.5	0.6	2.0	57.2	11.2	16.4	0.1	100.0	69.7	1,091
Other ethnic group	7.4	3.8	1.4	1.8	65.0	4.8	15.9	0.0	100.0	76.1	154

¹ MICS indicator 4.6 - Availability of soap or other cleansing agent

7. Reproductive Health

The 1994 International Conference on Population and Development (ICPD) affirmed that respect, protection, promotion and fulfilment of human rights are necessary preconditions for improving the dignity and well-being of women and adolescent girls and for empowering them to exercise their reproductive rights; and that sexual and reproductive health and rights and understanding the implications of population dynamics are foundational to sustainable development.⁷⁰ Kenya is signatory to a number of international and regional conventions that aim to address sexual and reproductive rights of men, women, boys and girls including the ICPD 1994 and Campaign on Accelerated Reduction of Maternal Mortality in Africa (CARMMA) (2009).

Notable policies and strategies developed since the 1994 Cairo meeting include the Contraceptive Policy and Strategy (2002-2006); the Adolescent Reproductive Health and Development Policy, 2003; the Contraceptive Commodities Procurement Plan (2003-2006); National Reproductive Health Policy, 2007; the Contraceptive Commodities Security Strategy (2007-2012); the National Reproductive Health Policy Enhancing Reproductive Health Status for all Kenyans, 2007; the National Reproductive Health and HIV and AIDS integration Strategy-August 2009; the HIV and AIDS Strategic Plan (2009/10-2012/13); the National Condom Policy and Strategy (2009-2014); the National Road Map for Accelerating the Attainment of the MDGs Related to Maternal and Newborn Health in Kenya, August 2010; the National Reproductive Health Strategy 2009-2015; the Constitution of Kenya 2010 that for the first time guarantees the right to health care including reproductive health; the School Health Policy 2009⁷¹; and the Kenya National Population Policy 2012.⁷²

This chapter presents the results on the following topics: fertility; contraception; unmet need for contraception; antenatal care (ANC); assistance at and place of delivery; and post-natal checks (PNC).

7.1 Fertility

Measures of current fertility are presented in Table RH.1 for the three-year period preceding the survey. The Bungoma MICS used birth history to derive current fertility rates. The main shortcomings associated with birth histories besides possible sampling errors, are response errors (e.g. age misstatements, misdating of events and omissions of births and deaths).⁷³ A three-year period was chosen for calculating these rates to provide the most current information while also allowing the rates to be calculated for a sufficient number of cases so as not to compromise the statistical precision of the estimates. Age-specific fertility rates (ASFRs), expressed as the number of live births per 1,000 women in a specified age group, show the age pattern of fertility. Numerators for ASFRs are calculated by identifying live births that occurred in the three-year period preceding the survey classified

⁷⁰ Framework of Actions for the follow - up to the Programme of Action of the International Conference on Population and Development Beyond 2014

⁷¹ Government of Kenya. National School Health Policy. Ministry of Public Health and Sanitation and Ministry of Education. Nairobi: Republic of Kenya; 2009.

⁷² Kenya National Commission for Human Rights. 2012. Realising Sexual and Reproductive Health Rights in Kenya: A myth or reality? A Report of the Public Inquiry into Violations of Sexual and Reproductive Health Rights in Kenya April 2012.

⁷³ Samuel Gaisie. Fertility Trend in Ghana. African Population Studies Vol. 20 N°2/Etude de la population africaine vol. 20 n° 2

according to the age of the mother (in five-year age groups) at the time of the child's birth. The denominators of the rates represent the number of woman-years lived by the survey respondents in each of the five-year age groups during the specified period.

The total fertility rate (TFR) is a measure that denotes the number of live births a woman would have if she were subject to the current age-specific fertility rates throughout her reproductive years (15-49 years).

The general fertility rate (GFR) is the number of live births occurring during the specified period per 1,000 women age 15-49 years.

The crude birth rate (CBR) is the number of live births per 1,000 population during the specified period.

Table RH.1 shows current fertility in the county according to the type of place of residence. The TFR for the three years preceding the survey is 4.5 births per woman.

Table RH.1: Fertility rates			
Adolescent birth rate, age-specific and total fertility rates, the general fertility rate, and the crude birth rate for the three-year period preceding the survey, by area, Bungoma County MICS, 2013/14			
	Urban	Rural	Total
Age			
15-19 ¹	47	83	66
20-24	(234)	204	219
25-29	(224)	231	228
30-34	(124)	(218)	177
35-39	(158)	(142)	148
40-44	(33)	(76)	54
45-49	(*)	(*)	(*)
TFR ^a	(4.1)	(4.8)	4.5
GFR ^b	131.0	156.7	144.6
CBR ^c	30.5	33.3	31.9
¹ MICS indicator 5.1; MDG indicator 5.4 - Adolescent birth rate			
^a TFR: Total fertility rate expressed per woman age 15-49 years			
^b GFR: General fertility rate expressed per 1,000 women age 15-49 years			
^c CBR: Crude birth rate expressed per 1,000 population			
() Figures that are based on 125 to 249 unweighted cases			
(*) Figures that are based on less than 125 unweighted cases			

The overall age pattern of fertility, as reflected by the ASFRs, indicates that childbearing began early. Fertility rates among adolescents start at 66 births per 1,000 women, increase to a peak of 228 births per 1,000 among women age 25-29 years, and declines thereafter.

Table RH.2 shows adolescent birth rates and total fertility rates. The adolescent birth rate (age-specific fertility rate for women age 15-19 years) is defined as the number of births to women age 15-19 years during the three-year period preceding the survey, divided by the average number of women age 15-19 years (number of women-years lived between ages 15 through 19 years, inclusive) during the same period, expressed per 1,000 women.

Table RH.2: Adolescent birth rate and total fertility rate		
Adolescent birth rates and total fertility rates for the three-year period preceding the survey, Bungoma County MICS, 2013/14		
	Adolescent birth rate ¹ (Age-specific fertility rate for women age 15-19 years)	Total fertility rate
Total	66	4.5
Education		
None	(*)	(*)
Primary	(92)	(5.4)
Secondary+	33	3.4
¹ MICS indicator 5.1; MDG indicator 5.4 - Adolescent birth rate		
() Figures that are based on 125 to 249 unweighted cases		
(*) Figures that are based on less than 125 unweighted cases		

Table RH.3 presents some early childbearing⁷⁴ indicators for women age 15-19 years and 20-24 years while Table RH.4 presents the trends for early childbearing. As shown in Table RH.3, 14 percent of women age 15-19 years had begun childbearing, three percent were pregnant with their first child, and two percent have had a live birth before age 15.

The table also presents that 30 percent of women age 20-24 years have had a live birth before age 18. The proportion of women age 20-24 years who have had a live birth before age 18 is higher for those with primary education (47 percent) compared to those with secondary or higher education (17 percent).

⁷⁴ Childbearing is the process of giving birth to children. While early childbearing is defined as having had live births before specific young ages, for the purposes of Table RH.3, women age 15-19 years who have begun childbearing includes those who have had a live birth as well as those who have not had a live birth but are pregnant with their first child.

Table RH.3: Early childbearing

Percentage of women age 15-19 years who have had a live birth, are pregnant with the first child, have begun childbearing, and who have had a live birth before age 15, and percentage of women age 20-24 years who have had a live birth before age 18, Bungoma County MICS, 2013/14

	Percentage of women age 15-19 years who:				Number of women age 15-19 years	Percentage of women age 20-24 years who have had a live birth before age 18 ¹	Number of women age 20-24 years
	Have had a live birth	Are pregnant with first child	Have begun childbearing	Have had a live birth before age 15			
Total	11.0	2.7	13.7	2.1	296	29.8	191
Area							
Urban	8.6	3.0	11.6	1.7	129	30.9	99
Rural	12.8	2.5	15.3	2.4	167	28.6	92
Education							
None	(*)	(*)	(*)	(*)	2	na	na
Primary	12.7	2.3	15.1	2.3	195	46.9	83
Secondary+	7.7	3.5	11.2	1.7	99	16.5	108
Wealth index quintile							
Poorest	(5.9)	(4.9)	(10.8)	(1.2)	36	(30.6)	27
Second	(12.8)	(2.3)	(15.1)	(5.5)	57	(34.6)	36
Middle	14.1	1.6	15.7	2.9	70	(33.3)	38
Fourth	7.1	3.3	10.4	0.0	68	(35.9)	39
Richest	12.8	2.4	15.2	0.8	65	18.7	51
Ethnicity of household head							
Luhya	10.8	2.8	13.6	2.0	271	29.1	163
Other ethnic group	(12.3)	(1.9)	(14.2)	(3.4)	24	(33.3)	28
¹ MICS indicator 5.2 - Early childbearing							
() Figures that are based on 25-49 unweighted cases							
(*) Figures that are based on fewer than 25 unweighted cases							

Table RH.4 suggests that early childbearing has gradually declined. In Bungoma County, four percent of women age 15-49 years have had a live birth before age 15. The proportion of women with a live birth before age 15 is similar in urban and rural areas (4 and 3 percent, respectively). Assessing the percentage by age of women 15-19 years, the proportion of women who had a live birth before age 15 is two percent.

Table RH.4: Trends in early childbearing

Percentage of women who have had a live birth, by age 15 and 18, by area and age group, Bungoma County MICS, 2013/14

	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
Total	4.2	563	24.1	434	3.2	650	25.3	483	3.7	1,213	24.7	917
Age												
15-19	1.7	129	na	na	2.4	167	na	na	2.1	296	na	na
20-24	7.1	99	30.9	99	2.2	92	28.6	92	4.8	191	29.8	191
25-29	2.4	106	20.2	106	4.8	116	31.2	116	3.6	222	25.9	222
30-34	0.9	69	15.9	69	6.8	92	22.6	92	4.3	161	19.7	161
35-39	3.9	57	20.7	57	1.3	85	17.5	85	2.4	142	18.8	142
40-44	10.4	56	26.7	56	1.2	53	15.2	53	5.9	110	21.1	110
45-49	(7.0)	48	(31.6)	48	3.2	44	35.6	44	5.2	92	33.5	92
na: not applicable												
() Figures that are based on 25-49 unweighted cases												

7.2 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 total 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.

Contraception by women currently married or in union⁷⁵ is 54 percent (Table RH.5). The most popular method was the use of injectables which was used by almost a third of married women in Bungoma County (29 percent). The next most popular method were implants, which accounted for 12 percent of married women while the pill was used by five percent and four percent used female sterilization. Less than one percent used periodic abstinence, withdrawal, male sterilization, vaginal methods, or the lactational amenorrhea method (LAM). About 46 percent of women did not use contraception.

A similar proportion of married women use a contraception method in urban and rural areas (54 and 55 percent, respectively). Half of the women age 20-24 years currently married or in union use a method of contraception, while the use among older women is over 60 percent for those between age 25 and 34 years, declining thereafter.

⁷⁵ All references to “married women” in this chapter include women in marital union as well.

Table RH.5: 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, Bungoma County MICS, 2013/14

	Percent of women currently married or in union who are using (or whose partner is using):																		Number of women age 15-49 years currently married or in union	
	No method	Female sterilization	Male sterilization	IUD	Injectables	Implants	Pill	Male condom	Female condom	Diaphragm/Foam/Jelly	LAM	Periodic abstinence	Withdrawal	Other	Missing	Any modern method	Any traditional method	Any method ¹		
Total	45.6	3.6	0.0	1.0	29.3	12.2	5.2	1.4	0.4	0.0	0.1	0.3	0.0	0.2	0.5	53.3	0.6	54.4	694	
Area																				
Urban	46.0	3.6	0.0	1.6	27.7	13.0	5.7	1.7	0.0	0.0	0.0	0.4	0.0	0.3	0.0	53.3	0.7	54.0	319	
Rural	45.3	3.6	0.0	0.6	30.6	11.6	4.7	1.2	0.8	0.0	0.3	0.3	0.0	0.1	1.0	53.3	0.5	54.7	376	
Age																				
15-19	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	14
20-24	50.1	0.0	0.0	0.0	37.8	3.1	4.2	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49.9	0.0	49.9	100	
25-29	39.2	0.0	0.0	1.4	33.8	17.1	6.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	1.4	59.4	0.0	60.8	179	
30-34	37.4	1.6	0.0	0.5	38.9	15.6	5.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	62.6	0.0	62.6	121	
35-39	36.5	6.3	0.0	3.0	27.1	16.7	6.4	0.4	2.6	0.0	0.0	1.0	0.0	0.0	0.0	62.5	1.0	63.5	120	
40-44	54.6	11.1	0.0	0.0	15.9	7.6	5.5	1.4	0.0	0.0	1.1	0.8	0.0	0.7	1.3	42.6	1.5	45.4	87	
45-49	68.1	7.5	0.0	0.6	14.0	4.5	1.4	1.9	0.0	0.0	0.0	0.6	0.0	1.4	0.0	30.0	2.0	31.9	74	
Number of living children																				
0	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	19
1	51.0	0.0	0.0	3.3	30.4	9.8	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49.0	0.0	49.0	74	
2	43.8	0.6	0.0	0.4	35.1	11.0	4.2	4.1	0.0	0.0	0.8	0.0	0.0	0.0	0.0	56.2	0.0	56.2	119	
3	44.3	2.7	0.0	2.2	32.8	9.8	4.9	0.9	2.5	0.0	0.0	0.0	0.0	0.0	0.0	55.7	0.0	55.7	126	
4+	43.2	5.8	0.0	0.4	27.3	14.7	5.8	1.1	0.0	0.0	0.0	0.6	0.0	0.4	0.7	55.0	1.1	56.8	356	
Education																				
None	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	18
Primary	48.0	2.7	0.0	0.0	30.2	11.8	5.0	1.8	0.0	0.0	0.0	0.1	0.0	0.0	0.3	51.5	0.1	52.0	376	
Secondary+	42.8	4.6	0.0	2.4	28.4	13.2	5.4	0.5	1.0	0.0	0.3	0.6	0.0	0.3	0.4	55.9	1.0	57.2	301	

Wealth index quintile

Poorest	49.6	4.5	0.0	0.0	28.9	11.3	2.2	1.2	0.0	0.0	0.0	0.0	0.0	0.5	1.9	48.0	0.5	50.4	122
Second	55.2	2.6	0.0	0.5	25.0	10.6	4.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.8	0.0	44.8	138
Middle	47.3	3.3	0.0	0.0	27.5	17.5	4.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	52.3	0.3	52.7	126
Fourth	40.7	3.3	0.0	1.4	32.2	11.5	7.3	2.7	0.0	0.0	0.7	0.0	0.0	0.3	0.0	59.0	0.3	59.3	149
Richest	37.4	4.1	0.0	2.8	32.0	11.0	7.3	1.0	2.0	0.0	0.0	1.2	0.0	0.4	0.8	60.2	1.5	62.6	159

Ethnicity of household head

Luhya	44.8	3.9	0.0	0.6	29.8	12.8	5.0	1.4	0.5	0.0	0.2	0.4	0.0	0.2	0.6	54.1	0.6	55.2	618
Other ethnic group	52.5	1.2	0.0	4.6	25.5	7.4	6.8	1.5	0.0	0.0	0.0	0.0	0.0	0.6	0.0	46.9	0.6	47.5	76

¹ MICS indicator 5.3; MDG indicator 5.3 - Contraceptive prevalence rate

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

7.3 Unmet Need

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

Unmet need for spacing is defined as the percentage of women who are married or in union and are not using a method of contraception AND

- are not pregnant, and not postpartum amenorrheic⁷⁶, and are fecund⁷⁷, and say they want to wait two or more years for their next birth OR
- are not pregnant, and not postpartum amenorrheic, and are fecund, and unsure whether they want another child OR
- are pregnant, and say that pregnancy was mistimed: would have wanted to wait OR
- are postpartum amenorrheic, and say that the birth was mistimed: would have wanted to wait.

Unmet need for limiting is defined as percentage of women who are married or in union and are not using a method of contraception AND

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

Total unmet need for contraception is the sum of unmet need for spacing and unmet need for limiting. This indicator is also known as unmet need for family planning and is one of the indicators used to track progress toward the Millennium Development Goal 5 of improving maternal health.

Met need for limiting includes women married or in union who are using (or whose partner is using) a contraceptive method⁷⁸, and who want no more children, are using male or female sterilization, or declare themselves as infecund. Met need for spacing includes women who are using (or whose partner is using) a contraceptive method, and who want to have another child, or are undecided whether to have another child. The total of met need for spacing and limiting adds up to the total met need for contraception.

⁷⁶ A woman is postpartum amenorrheic if she had a birth in last two years and is not currently pregnant, and her menstrual period has not returned since the birth of the last child

⁷⁷ A woman is considered infecund if she is neither pregnant nor postpartum amenorrheic, and (1a) has not had menstruation for at least six months, or (1b) never menstruated, or (1c) her last menstruation occurred before her last birth, or (1d) in menopause/has had hysterectomy OR

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

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

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

⁷⁸ In this chapter, whenever reference is made to the use of a contraceptive by a woman, this may refer to her partner using a contraceptive method (such as male condom).

Using information on contraception and unmet need, the percentage of demand for contraception satisfied is also estimated from the MICS data. The percentage of demand satisfied is defined as the proportion of women currently married or in union who are currently using contraception, over the total demand for contraception. The total demand for contraception includes women who currently have an unmet need (for spacing or limiting), plus those who are currently using contraception.

Table RH.6 shows the levels of met need for contraception, unmet need, and the demand for contraception satisfied. The results show that the total met need is 54 percent, while total unmet need for family planning is 23 percent. Unmet need is estimated at 20 percent in urban areas and 25 percent in rural areas. Unmet need is associated with wealth, with the least wealthy women having the highest level of unmet need and the richest women the lowest. The table further highlights that the total demand for family planning satisfied is 71 percent.

Table RH.6: Unmet need for contraception

Percentage of women age 15-49 years currently married or in union with an unmet need for family planning and percentage of demand for contraception satisfied, Bungoma County MICS, 2013/14

	Met need for contraception			Unmet need for contraception			Number of women currently married or in union	Percentage of demand for contraception satisfied	Number of women currently married or in union with need for contraception
	For spacing	For limiting	Total	For spacing	For limiting	Total ¹			
Total	19.0	35.4	54.4	9.9	12.6	22.5	694	70.7	534
Area									
Urban	17.9	36.1	54.0	10.1	9.6	19.6	319	73.3	235
Rural	19.8	34.9	54.7	9.8	15.2	25.0	376	68.7	299
Age									
15-19	(*)	(*)	(*)	(*)	(*)	(*)	14	(*)	7
20-24	35.8	14.1	49.9	19.1	1.1	20.2	100	71.2	70
25-29	27.2	33.6	60.8	16.6	7.8	24.4	179	71.4	152
30-34	21.4	41.2	62.6	10.3	14.4	24.7	121	71.7	106
35-39	12.1	51.3	63.5	3.1	16.2	19.2	120	76.7	99
40-44	3.3	42.1	45.4	1.6	30.5	32.2	87	58.5	67
45-49	0.0	31.9	31.9	0.0	11.9	11.9	74	72.8	32
Education									
None	(*)	(*)	(*)	(*)	(*)	(*)	18	(*)	14
Primary	13.3	38.6	52.0	9.8	15.4	25.2	376	67.4	290
Secondary+	26.1	31.1	57.2	10.4	8.8	19.2	301	74.9	230
Wealth index quintile									
Poorest	11.3	39.1	50.4	11.8	20.0	31.8	122	61.3	101
Second	15.8	29.0	44.8	11.4	20.0	31.4	138	58.8	105
Middle	15.8	36.8	52.7	8.5	8.5	17.1	126	75.5	88
Fourth	19.6	39.7	59.3	6.4	11.9	18.3	149	76.4	115
Richest	29.5	33.1	62.6	11.5	4.5	16.0	159	79.6	125
Ethnicity of household head									
Luhya	18.5	36.8	55.2	9.6	12.7	22.2	618	71.3	479
Other ethnic group	23.0	24.5	47.5	12.5	12.3	24.8	76	65.7	55
¹ MICS indicator 5.4; MDG indicator 5.6 - Unmet need									
(*) Figures that are based on fewer than 25 unweighted cases									

7.4 Antenatal Care (ANC)

The antenatal period presents important opportunities for reaching pregnant women with a number of interventions that may be vital to the health and well-being of both mother and that of their unborn baby. 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, antenatal care (ANC) can be used to inform women and families about risks and symptoms in pregnancy. In addition, it can inform about the risks of labour and delivery, and therefore it may provide the route for ensuring that pregnant women do in practice, deliver with the assistance of a skilled health care provider. Antenatal visits also provide an opportunity to supply information on birth spacing, which is recognized as an important factor in improving unborn baby survival. Tetanus immunization during pregnancy can be life-saving for both the mother and the unborn baby.

The prevention and treatment of malaria among pregnant women, management of anaemia during pregnancy and treatment of sexually transmitted infections (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 ANC 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 ANC visits, which include:

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

It is of crucial importance for pregnant women to start attending ANC visits as early in pregnancy as possible in order to prevent and detect pregnancy conditions that could affect both the woman and her unborn baby. ANC should therefore, continue throughout the entire pregnancy.

Antenatal care coverage indicators (at least one visit with a skilled provider and 4 or more visits with any providers) are used to track progress toward the Millennium Development Goal 5 of improving maternal health.

The type of personnel providing antenatal care to women age 15-49 years who gave birth in the two years preceding the survey is presented in Table RH.7. The results show that 93 percent of women had received ANC and 91 percent of them received it from a skilled provider. In the county, most of the ANC was provided by a nurse or midwife (77 percent) while few women received care from a traditional birth attendant (2 percent), almost exclusively in rural areas. About 97 percent of women in urban areas received ANC from a skilled provider.

Table RH.7: Antenatal care coverage

Percent distribution of women age 15-49 years with a live birth in the last two years by antenatal care provider during the pregnancy for the last birth, Bungoma County MICS, 2013/14

	Provider of antenatal care ^a							Total	Any skilled provider ^{1,b}	Number of women with a live birth in the last two years
	Medical doctor	Nurse/Midwife	Auxiliary midwife	Traditional birth attendant	Community health worker	Other/Missing	No antenatal care			
Total	11.8	76.5	0.8	2.2	0.5	1.3	7.0	100.0	91.3	311
Area										
Urban	20.0	76.1	0.6	0.0	0.0	0.0	3.3	100.0	96.7	137
Rural	5.3	76.9	0.9	3.9	0.8	2.3	9.8	100.0	87.0	174
Mother's age at birth										
Less than 20	12.5	69.2	0.0	1.9	0.0	2.0	14.4	100.0	83.6	33
20-34	11.2	78.2	1.1	2.4	0.3	1.5	5.3	100.0	92.9	227
35-49	13.6	73.9	0.0	1.6	1.3	0.0	9.6	100.0	89.1	51
Education										
None	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	(*)	5
Primary	8.5	76.9	0.9	3.4	0.4	0.3	9.5	100.0	89.7	189
Secondary+	17.5	75.6	0.7	0.3	0.6	2.9	2.4	100.0	94.1	116
Wealth index quintile										
Poorest	11.6	77.0	1.2	1.5	0.0	0.0	8.7	100.0	91.3	68
Second	8.3	75.3	0.0	7.1	0.0	0.0	9.3	100.0	90.7	65
Middle	6.8	81.2	0.0	2.1	1.4	0.0	8.5	100.0	90.1	55
Fourth	11.4	80.7	3.0	0.0	1.2	1.2	2.5	100.0	95.1	56
Richest	19.5	70.2	0.0	0.0	0.0	5.0	5.3	100.0	89.6	68
Ethnicity of household head										
Luhya	10.7	77.1	0.9	2.2	0.5	1.5	7.1	100.0	90.9	272
Other ethnic group	18.9	72.9	0.0	1.9	0.0	0.0	6.3	100.0	93.7	39

¹ MICS indicator 5.5a; MDG indicator 5.5 - Antenatal care coverage

^a Only the most qualified provider is considered in cases where more than one provider was reported.

^b Skilled providers include *Medical doctor* and *Nurse/Midwife*.

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

Table RH.8 shows the number of ANC visits during the latest pregnancy that took place within the last two years preceding the survey, regardless of provider, by selected characteristics. Almost nine in ten mothers received ANC more than once and half of the mothers received ANC at least four times. The percentage of women from urban areas (56 percent) who received ANC four or more times was higher than those from rural areas (46 percent).

The table also provides information about the timing of the first antenatal care visit. Overall, only 17 percent of women with a live birth in the last two years preceding the survey had their first ANC visit during the first trimester of their last pregnancy. The median month pregnant women registered for the first ANC visit is five months. Twenty percent of women in urban areas registered their first ANC visit within the first trimester while the proportion is 14 percent in rural areas.

Table RH.8: Number of antenatal care visits and timing of first visit

Percent distribution of women age 15-49 years with a live birth in the last two years by number of antenatal care visits by any provider and by the timing of first antenatal care visits, Bungoma County MICS, 2013/14

	Percent distribution of women who had:							Percent distribution of women by number of months pregnant at the time of first antenatal care visit						Number of women with a live birth in the last two years	Median months pregnant at first ANC visit	Number of women with a live birth in the last two years who had at least one ANC visit
	No antenatal care visits	One visit	Two visits	Three visits	4 or more visits ¹	Missing/DK	Total	No antenatal care visits	First trimester	4-5 months	6-7 months	8+ months	Total			
Total	7.0	2.2	12.8	26.9	50.3	0.9	100.0	7.0	16.9	42.7	29.8	3.6	100.0	311	5	289
Area																
Urban	3.3	0.8	6.1	33.9	55.5	0.4	100.0	3.3	20.3	39.6	34.0	2.7	100.0	137	5	132
Rural	9.8	3.2	18.1	21.3	46.3	1.3	100.0	9.8	14.3	45.2	26.5	4.2	100.0	174	5	157
Mother's age at birth																
Less than 20	(*)	(*)	(*)	(*)	(*)	(*)	100.0	(*)	(*)	(*)	(*)	(*)	100.0	33	(*)	28
20-34	5.3	2.3	11.0	28.4	52.2	0.9	100.0	5.3	16.8	43.9	30.6	3.5	100.0	227	5	215
35-49	(*)	(*)	(*)	(*)	(*)	(*)	100.0	(*)	(*)	(*)	(*)	(*)	100.0	51	(*)	46
Education																
None	(*)	(*)	(*)	(*)	(*)	(*)	100.0	(*)	(*)	(*)	(*)	(*)	100.0	5	(*)	4
Primary	9.5	3.6	14.0	28.8	43.4	0.8	100.0	9.5	14.1	42.6	28.3	5.5	100.0	189	5	171
Secondary+	2.4	0.0	9.6	24.9	62.7	0.5	100.0	2.4	21.7	43.0	32.4	0.5	100.0	116	5	114
Wealth index quintile																
Poorest	8.7	4.8	19.8	30.5	35.2	1.0	100.0	8.7	7.6	43.6	34.8	5.3	100.0	68	5	62
Second	9.3	0.0	8.6	36.3	44.6	1.2	100.0	9.3	8.8	38.4	43.5	0.0	100.0	65	(5)	59
Middle	8.5	6.4	17.8	19.0	48.3	0.0	100.0	8.5	24.4	25.8	28.9	12.4	100.0	55	5	50
Fourth	2.5	0.0	11.4	26.2	59.8	0.0	100.0	2.5	18.1	51.8	26.4	1.2	100.0	56	5	54
Richest	5.3	0.0	6.9	21.1	64.9	1.9	100.0	5.3	27.1	52.2	15.4	0.0	100.0	68	4	64
Ethnicity of household head																
Luhya	7.1	2.0	13.2	27.5	49.3	1.0	100.0	7.1	17.2	42.8	29.6	3.4	100.0	272	5	253
Other ethnic group	6.3	3.2	10.2	22.4	58.0	0.0	100.0	6.3	15.4	42.2	31.3	4.8	100.0	39	5	37

¹ MICS indicator 5.5b; MDG indicator 5.5 - Antenatal care coverage

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

The coverage of key services that pregnant women were expected to receive during ANC visits is shown in Table RH.9. Among those women who had a live birth during the last two years preceding the survey, 80 percent had blood pressure checked, and urine and blood samples taken. Eighty-nine percent reported that a blood sample was taken during antenatal care visits, another 87 percent had blood pressure checked, and 85 percent had a urine specimen taken. Measuring of blood pressure and having urine and blood samples taken was higher for women in urban areas (87 percent) than for those in rural areas (74 percent).

Table RH.9: Content of antenatal care					
Percentage of women age 15-49 years with a live birth in the last two years who, at least once, had their blood pressure measured, urine sample taken, and blood sample taken as part of antenatal care, during the pregnancy for the last birth, Bungoma County MICS, 2013/14					
	Percentage of women who, during the pregnancy of their last birth, had:				Number of women with a live birth in the last two years
	Blood pressure measured	Urine sample taken	Blood sample taken	Blood pressure measured, urine and blood sample taken ¹	
Total	86.8	84.8	89.3	80.0	311
Area					
Urban	91.2	91.0	93.9	87.3	137
Rural	83.3	79.8	85.7	74.3	174
Mother's age at birth					
Less than 20	(70.3)	(70.6)	(69.4)	(62.8)	33
20-34	90.4	88.3	92.8	84.9	227
35-49	(81.3)	(78.0)	(86.8)	(69.7)	51
Education					
None	(*)	(*)	(*)	(*)	5
Primary	81.6	80.2	85.3	73.5	189
Secondary+	95.4	94.2	96.8	92.5	116
Wealth index quintile					
Poorest	81.5	77.4	86.6	70.5	68
Second	77.6	77.1	85.8	67.5	65
Middle	87.7	83.5	86.9	79.7	55
Fourth	96.3	94.9	94.3	93.1	56
Richest	92.4	92.2	93.3	91.1	68
Ethnicity of household head					
Luhya	86.9	84.4	89.3	79.6	272
Other ethnic group	86.3	87.3	89.7	83.3	39
¹ MICS indicator 5.6 - Content of antenatal care					
() Figures that are based on 25-49 unweighted cases					
(*) Figures that are based on fewer than 25 unweighted cases					

7.5 Assistance at Delivery

About three quarters of all maternal deaths occur due to direct obstetric causes.⁷⁹ The single most critical intervention for safe motherhood is to ensure that a competent health worker with midwifery

⁷⁹ Say, L et al. 2014. *Global causes of maternal death: a WHO systematic analysis*. The Lancet Global Health 2(6): e323-33. DOI: 10.1016/S2214-109X(14)70227-X

skills is present at every birth, and in case of emergency that transport is available to a referral facility for obstetric care. The skilled attendant at delivery is an indicator used to track progress toward the Millennium Development Goal 5 of improving maternal health.

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, or midwife. In Bungoma, 50 percent of births occurring in the two years preceding the MICS were delivered by skilled personnel (Table RH.10 and Figure RH.1). In urban areas, 63 percent of women were delivered by any skilled attendant while 41 percent in rural areas were delivered by any skilled personnel. Almost all the births (99 percent) that were delivered in the county by skilled personnel were in a health facility. More than one in three of the births (36 percent) in the two years preceding the survey were delivered with assistance of a nurse/midwife. Doctors assisted with the delivery of 12 percent of the births.

Table RH.10 also shows information on women who delivered by caesarean section (C-section) and provides additional information on the timing of the decision to conduct a C-section (before labour pains began or after) in order to better assess if such decisions were mostly driven by medical or non-medical reasons. Overall, three percent of women who delivered in the last two years preceding the survey had a C-section and for nearly all of them, the decision was taken after the onset of labour pains.

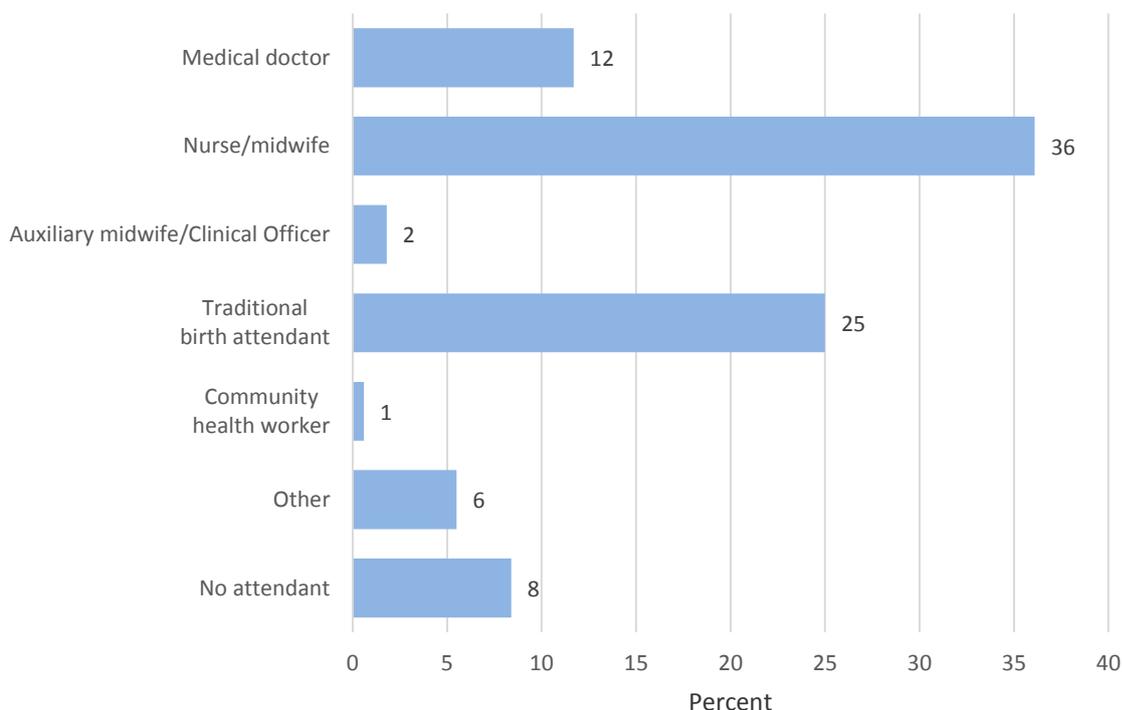
Table RH.10: Assistance during delivery and caesarean section

Percent distribution of women age 15-49 years with a live birth in the last two years by person providing assistance at delivery, and percentage of births delivered by C-section, Bungoma County MICS, 2013/14

	Person assisting at delivery										Percent delivered by C-section			Number of women who had a live birth in the last two years	
	Medical doctor	Nurse/Midwife	Auxiliary midwife	Community nurse	Traditional birth attendant	Community health worker	Relative/Friend	Other	No attendant	Total	Delivery assisted by any skilled attendant ^{1,a}	Decided before onset of labour pains	Decided after onset of labour pains		Total ²
Total	11.7	36.1	1.8	1.2	25.0	0.6	9.8	5.5	8.4	100.0	50.7	0.0	2.8	2.8	311
Area															
Urban	18.1	43.6	1.2	0.0	16.4	0.0	9.5	2.8	8.4	100.0	62.9	0.0	3.8	3.8	137
Rural	6.7	30.1	2.2	2.2	31.7	1.0	10.0	7.6	8.5	100.0	41.2	0.0	2.0	2.0	174
Mother's age at birth															
Less than 20	(6.2)	(31.1)	(0.0)	(0.0)	(49.6)	(2.0)	(8.5)	(2.6)	(0.0)	100.0	(37.3)	(0.0)	(0.0)	(0.0)	33
20-34	11.9	38.7	2.4	0.3	22.1	0.5	11.1	6.5	6.6	100.0	53.3	0.0	1.9	1.9	227
35-49	(14.6)	(27.4)	(0.0)	(6.1)	(21.7)	(0.0)	(5.0)	(2.8)	(22.4)	100.0	(48.1)	(0.0)	(8.4)	(8.4)	51
Place of delivery															
Home	0.0	7.7	0.0	1.9	47.5	0.2	19.0	7.4	16.4	100.0	9.6	0.0	0.0	0.0	161
Health facility	25.3	69.4	3.8	0.5	0.0	1.0	0.0	0.0	0.0	100.0	99.0	0.0	6.0	6.0	144
Public	23.2	71.0	4.6	0.0	0.0	1.2	0.0	0.0	0.0	100.0	98.8	0.0	6.1	6.1	120
Private	(36.1)	(61.1)	(0.0)	(2.8)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	100.0	(100.0)	(0.0)	(5.7)	(5.7)	24
Education															
None	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	(*)	(*)	(*)	(*)	5
Primary	8.3	31.2	0.3	0.0	30.0	0.8	10.5	5.3	13.5	100.0	39.9	0.0	1.9	1.9	189
Secondary+	17.7	42.4	4.2	3.2	17.8	0.3	8.3	5.4	0.7	100.0	67.6	0.0	4.3	4.3	116
Wealth index quintile															
Poorest	6.9	33.8	0.0	0.0	27.0	0.0	13.8	6.8	11.7	100.0	40.6	0.0	0.0	0.0	68
Second	10.3	42.4	0.0	0.0	11.3	0.0	14.3	6.3	15.4	100.0	52.7	0.0	1.5	1.5	65
Middle	8.8	29.4	0.0	5.7	46.3	2.1	2.1	1.2	4.4	100.0	43.9	0.0	2.6	2.6	55

Fourth	10.7	28.1	1.8	1.2	21.6	1.2	16.1	8.7	10.6	100.0	41.9	0.0	5.4	5.4	56
Richest	21.1	44.1	6.6	0.0	21.5	0.0	2.5	4.1	0.0	100.0	71.8	0.0	4.9	4.9	68
Ethnicity of household head															
Luhya	10.2	34.5	1.9	1.4	27.2	0.5	10.1	5.3	8.8	100.0	48.0	0.0	2.3	2.3	272
Other ethnic group	22.3	46.6	1.1	0.0	9.2	0.9	7.5	6.3	6.0	100.0	70.1	0.0	6.1	6.1	39
¹ MICS indicator 5.7; MDG indicator 5.2 - Skilled attendant at delivery															
² MICS indicator 5.9 - Caesarean section															
^a Skilled attendants include <i>Medical doctor and Nurse/Midwife</i> .															
() Figures that are based on 25-49 unweighted cases															
(*) Figures that are based on fewer than 25 unweighted cases															

Figure RH.1: Person assisting at delivery, Bungoma County MICS, 2013/14



7.6 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.11 presents the percent distribution of women age 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-six percent of births in the county were delivered in a health facility; 39 percent of deliveries occurred in public health facilities and eight percent in private health facilities. About 52 percent births took place at home. The proportion of women in urban areas who delivered in a health facility was higher than in rural areas (61 percent compared with 35 percent). Delivery at a health facility was also higher for women with secondary/higher education (62 percent) compared to women with primary education (37 percent).

Table RH.11: Place of delivery

Percent distribution of women age 15-49 years with a live birth in the last two years by place of delivery of their last birth, Bungoma County MICS, 2013/14

	Place of delivery					Total	Delivered in health facility ¹	Number of women with a live birth in the last two years
	Health facility		Home	Other	Missing/DK			
	Public sector	Private sector						
Total	38.6	7.7	51.7	0.4	1.6	100.0	46.3	311
Area								
Urban	51.7	9.2	36.3	0.0	2.8	100.0	61.0	137
Rural	28.3	6.4	63.8	0.8	0.7	100.0	34.7	174
Mother's age at birth								
Less than 20	(33.9)	(3.4)	(60.1)	(0.0)	(2.6)	100.0	(37.3)	33
20-34	40.3	8.8	49.1	0.6	1.2	100.0	49.1	227
35-49	(34.2)	(5.4)	(57.6)	(0.0)	(2.8)	100.0	(39.6)	51
Number of antenatal care visits								
None	(*)	(*)	(*)	(*)	(*)	100.0	(*)	22
1-3 visits	39.9	3.9	55.2	1.1	0.0	100.0	43.8	130
4+ visits	43.2	11.5	45.3	0.0	0.0	100.0	54.7	156
Education								
None	(*)	(*)	(*)	(*)	(*)	100.0	(*)	5
Primary	34.1	2.7	61.7	0.3	1.2	100.0	36.8	189
Secondary+	46.2	16.1	34.7	0.6	2.4	100.0	62.3	116
Wealth index quintile								
Poorest	27.8	3.8	67.2	0.0	1.2	100.0	31.6	68
Second	44.7	3.2	52.1	0.0	0.0	100.0	47.9	65
Middle	30.1	6.1	61.3	2.5	0.0	100.0	36.2	55
Fourth	36.6	5.6	55.3	0.0	2.5	100.0	42.2	56
Richest	52.1	18.7	25.0	0.0	4.1	100.0	70.8	68
Ethnicity of household head								
Luhya	37.9	5.7	54.9	0.5	0.9	100.0	43.6	272
Other ethnic group	43.5	21.3	28.9	0.0	6.3	100.0	64.7	39
¹ MICS indicator 5.8 - Institutional deliveries								
() Figures that are based on 25-49 unweighted cases (*) Figures that are based on fewer than 25 unweighted cases								

7.7 Post-natal Health Checks (PNC)

The time of birth and immediately after is a critical window of opportunity to deliver lifesaving interventions for both the mother and newborn. Across the world, approximately 3 million newborns die annually in the first month of life⁸⁰ and the majority of these deaths occur within a day or two of birth⁸¹, which is also the time when the majority of maternal deaths occur.⁸²

Despite the importance of the first few days following birth, large-scale, nationally representative household survey programmes have not systematically included questions on the post-natal period and care for the mother and newborn. In 2008, the Countdown to 2015 initiative, which monitors

⁸⁰ UN Interagency Group for Child Mortality Estimation. 2013. *Levels and Trends in Child Mortality: Report 2013*

⁸¹ Lawn, JE et al. 2005. *4 million neonatal deaths: When? Where? Why?* Lancet 2005; 365:891-900.

⁸² WHO, UNICEF, UNFPA, The World Bank. 2012. *Trends in Maternal Mortality: 1990-2010*. World Health Organization.

progress on maternal, newborn and child health interventions, highlighted this data gap. This not only called for post-natal care (PNC) programmes to be strengthened, but also for better data availability and quality.⁸³

Following the establishment and discussions of an Inter-Agency Group on PNC and drawing on lessons learned from earlier attempts of collecting PNC data, a new questionnaire module for MICS was developed and validated. The Post-natal Health Checks (PNHC) module collected information on newborns' and mothers' contact with a provider, but not content of care. The rationale for this is that as PNC programmes scale up, it is important to measure the coverage of that scale up and ensure that the platform for providing essential services is in place. Content is considered more difficult to measure, particularly because the respondent is asked to recall services delivered up to two years preceding the interview.

Table RH.12 presents the percent distribution of women age 15-49 years who gave birth in a health facility in the two years preceding the survey by duration of stay in the facility following the delivery, according to background characteristics.

Overall, 68 percent of women who gave birth in a health facility stayed 12 hours or more in the facility after delivery. Across the county, a much higher proportion (78 percent) of women delivering in urban areas stayed 12 hours or more than those delivering in rural areas (55 percent).

Table RH.12: Post-partum stay in health facility								
Percent distribution of women age 15-49 years with a live birth in the last two years who had their last birth delivered in a health facility by duration of stay in health facility, Bungoma County MICS, 2013/14								
	Duration of stay in health facility					Total	12 hours or more ¹	Number of women who had their last birth delivered in a health facility in the last 2 years
	Less than 6 hours	6-11 hours	12-23 hours	1-2 days	3 days or more			
Total	16.3	15.8	4.8	53.4	9.8	100.0	67.9	144
Area								
Urban	5.1	17.2	6.6	61.1	10.0	100.0	77.6	83
Rural	31.6	13.8	2.3	42.7	9.5	100.0	54.5	60
Education								
None	(*)	(*)	(*)	(*)	(*)	100.0	(*)	2
Primary	16.8	13.2	6.2	54.3	9.5	100.0	70.0	70
Secondary+	16.1	18.7	3.5	51.5	10.2	100.0	65.3	72
¹ MICS indicator 5.10 - Post-partum stay in health facility								
(*) Figures that are based on fewer than 25 unweighted cases								

Safe motherhood programmes have recently increased emphasis on the importance of post-natal care, recommending that all women and newborns receive a health check within two days of delivery. *Health checks following birth* while in facility or at home refer to checks provided by any health provider regardless of timing (column 1). *Post-natal care (PNC) visits* on the other hand, refer to a

⁸³HMN, UNICEF, WHO. 2008. *Countdown to 2015: Tracking Progress in Maternal, Newborn & Child Survival, The 2008 Report*. UNICEF.

separate visit to check on the health of the newborn and provide preventive care services. These, therefore, do not include *health checks following birth* while in facility or at home. The indicator *Post-natal health checks* includes any health check after birth received while in the health facility and at home (column 1), regardless of timing, as well as PNC visits within two days of delivery (columns 2, 3, and 4). To assess the extent of post-natal care utilization, women were asked whether they and their newborn received a health check after the delivery, the timing of the first check, and the type of health provider for the woman's last birth in the two years preceding the survey.

Table RH.13 shows the percentage of newborns born in the last two years preceding the survey who received health checks and post-natal care visits from any health provider after birth. Overall, 60 percent of newborns received a health check following birth while in a health facility or at home. With regards to PNC visits, these predominantly occurred either on the same day as the delivery or after the first week following delivery (7 percent and 9 percent, respectively). As a result, a total of 63 percent of all newborns received a post-natal health check. The proportion of urban newborns who received a health check, both following birth (65 percent) and in total including PNC visits (67 percent), was higher than that of their rural counterparts (56 percent and 60 percent, respectively). Health checks following birth occurred mainly in health facilities (88 percent), whereas for newborns delivered at home the figure was 37 percent.⁸⁴

⁸⁴ Information on newborns who received the first PNC visit within one week of birth and type of provider of service is not included due to the small number of cases reported.

Table RH.13: Post-natal health checks for newborns

Percentage of women age 15-49 years with a live birth in the last two years whose last live birth received health checks while in facility or at home following birth, percent distribution whose last live birth received post-natal care (PNC) visits from any health provider after birth, by timing of visit, and percentage who received post-natal health checks, Bungoma County MICS, 2013/14

	Health check following birth while in facility or at home ^a	PNC visit for newborns ^b								Post-natal health check for the newborn ^{1, c}	Number of last live births in the last two years
		Same day	1 day following birth	2 days following birth	3-6 days following birth	After the first week following birth	No post-natal care visit	Missing/DK	Total		
Total	59.7	7.4	2.3	0.4	1.9	8.8	78.7	0.5	100.0	62.9	311
Area											
Urban	64.5	8.5	1.0	0.6	0.8	9.6	78.3	1.2	100.0	67.2	137
Rural	56.0	6.6	3.3	0.2	2.7	8.1	79.1	0.0	100.0	59.6	174
Mother's age at birth											
Less than 20	(55.6)	(6.4)	(5.9)	(1.2)	(1.3)	(4.2)	(81.1)	(0.0)	100.0	(55.6)	33
20-34	59.3	8.3	1.7	0.4	1.0	8.9	78.9	0.7	100.0	63.6	227
35-49	(64.4)	(4.2)	(2.4)	(0.0)	(6.1)	(11.0)	(76.2)	(0.0)	100.0	(64.4)	51
Place of delivery											
Home	37.1	8.3	3.4	0.0	3.6	6.3	78.4	0.0	100.0	43.2	161
Health facility	87.7	6.7	1.2	0.8	0.0	12.0	78.1	1.1	100.0	87.7	144
Public	87.9	7.2	0.4	0.0	0.0	12.0	79.0	1.4	100.0	87.9	120
Private	(86.6)	(4.6)	(5.1)	(5.0)	(0.0)	(11.5)	(73.8)	(0.0)	100.0	(86.6)	24
Education											
None	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	(*)	5
Primary	54.6	5.1	1.8	0.2	1.9	6.7	84.3	0.0	100.0	56.5	189
Secondary+	68.7	11.5	2.5	0.7	1.9	11.9	70.1	1.4	100.0	74.0	116
Wealth index quintile											
Poorest	52.8	3.0	3.5	0.0	2.3	0.0	91.2	0.0	100.0	52.8	68
Second	50.7	3.5	3.4	0.0	0.0	10.1	82.9	0.0	100.0	53.9	65
Middle	62.7	14.4	2.2	0.7	0.8	6.2	75.6	0.0	100.0	68.6	55
Fourth	56.5	13.5	0.0	0.0	6.8	12.1	67.5	0.0	100.0	64.5	56
Richest	75.6	5.0	2.0	1.2	0.0	15.5	74.0	2.4	100.0	75.6	68
Ethnicity of household head											
Luhya	58.6	7.7	2.6	0.0	2.1	8.9	78.0	0.6	100.0	62.1	272
Other ethnic group	67.6	5.2	0.0	3.0	0.0	7.8	83.9	0.0	100.0	68.8	39

¹ MICS indicator 5.11 - Post-natal health check for the newborn

^a Health checks by any health provider following facility births (before discharge from facility) or following home births (before departure of provider from home).

^b Post-natal care visits (PNC) refer to a separate visit by any health provider to check on the health of the newborn and provide preventive care services. PNC visits do not include health checks following birth while in facility or at home (see note ^a above).

^c Post-natal health checks include any health check performed while in the health facility or at home following birth (see note ^a above), as well as PNC visits (see note ^b above) within two days of delivery.

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

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

Table RH.14 presents information collected on post-natal health checks for mothers. Overall, 59 percent of mothers received a health check following birth while in a health facility or at home. Health checks following birth occurred mainly in health facility deliveries (87 percent), whereas for mothers delivering at home the figure was 36 percent.

A total of 60 percent of all mothers received a post-natal health check. The proportion of urban mothers receiving a health check, both following birth (62 percent) and in total including post-natal health checks (63 percent), was somewhat higher than that of their rural counterparts (56 percent and 58 percent, respectively). Post-natal health check for the mother was also higher for deliveries that happened in a health facility (87 percent) compared to those delivered at home (39 percent).⁸⁵

⁸⁵ Information on PNC visits for mothers by location and type of provider is not included due to the small number of cases reported.

Table RH.14: Post-natal health checks for mothers

Percentage of women age 15-49 years with a live birth in the last two years who received health checks while in facility or at home following birth, percent distribution who received post-natal care (PNC) visits from any health provider after birth at the time of last birth, by timing of visit, and percentage who received post-natal health checks, Bungoma County MICS, 2013/14

	Health check following birth while in facility or at home ^a	PNC visit for mothers ^b								Post-natal health check for the mother ^{1,c}	Number of women with a live birth in the last two years
		Same day	1 day following birth	2 days following birth	3-6 days following birth	After the first week following birth	No post-natal care visit	Missing/DK	Total		
Total	58.8	2.7	0.4	1.3	1.4	5.5	88.4	0.2	100.0	60.4	311
Area											
Urban	62.3	0.7	0.8	2.7	0.8	7.0	87.6	0.4	100.0	63.4	137
Rural	56.0	4.3	0.2	0.2	1.8	4.4	89.1	0.0	100.0	57.9	174
Mother's age at birth											
Less than 20	(51.3)	(0.0)	(0.0)	(3.6)	(1.3)	(2.2)	(92.9)	(0.0)	100.0	(51.3)	33
20-34	58.6	3.8	0.6	0.5	0.3	5.2	89.5	0.2	100.0	60.8	227
35-49	(64.4)	(0.0)	(0.0)	(3.8)	(6.1)	(9.3)	(80.7)	(0.0)	100.0	(64.4)	51
Place of delivery											
Home	35.7	2.4	0.9	0.5	2.6	2.5	91.1	0.0	100.0	38.8	161
Health facility	87.1	3.2	0.0	2.3	0.0	9.1	84.9	0.4	100.0	87.1	144
Public	89.0	3.3	0.0	2.5	0.0	7.3	86.5	0.4	100.0	89.0	120
Private	(77.7)	(2.8)	(0.0)	(1.7)	(0.0)	(18.5)	(77.1)	(0.0)	100.0	(77.7)	24
Type of delivery											
Vaginal birth	57.6	2.8	0.5	0.7	1.4	4.2	90.2	0.2	100.0	59.2	302
C-section	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	(*)	9
Education											
None	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	(*)	5
Primary	52.0	0.9	0.0	1.6	1.9	3.4	92.1	0.0	100.0	52.3	189
Secondary+	70.9	5.8	1.2	0.9	0.6	9.2	81.9	0.5	100.0	74.8	116
Wealth index quintile											
Poorest	51.6	0.0	0.0	0.0	0.0	1.2	98.8	0.0	100.0	51.6	68
Second	46.3	0.0	0.0	0.0	0.0	8.8	91.2	0.0	100.0	46.3	65
Middle	58.8	3.5	0.6	0.7	0.8	1.4	92.9	0.0	100.0	59.6	55
Fourth	55.5	9.5	1.9	5.3	6.8	1.9	74.5	0.0	100.0	63.5	56
Richest	80.7	1.9	0.0	1.2	0.0	12.9	83.2	0.8	100.0	80.7	68
Ethnicity of household head											
Luhya	57.8	3.0	0.4	1.4	1.6	5.7	87.8	0.2	100.0	59.5	272
Other ethnic group	65.4	1.2	0.9	1.0	0.0	4.3	92.6	0.0	100.0	66.6	39
¹ MICS indicator 5.12 - Post-natal health check for the mother											
^a Health checks by any health provider following facility births (before discharge from facility) or following home births (before departure of provider from home).											
^b Post-natal care visits (PNC) refer to a separate visit by any health provider to check on the health of the mother and provide preventive care services. PNC visits do not include health checks following birth while in facility or at home (see note ^a above).											
^c Post-natal health checks include any health check performed while in the health facility or at home following birth (see note ^a above), as well as PNC visits (see note ^b above) within two days of delivery.											
() Figures that are based on 25-49 unweighted cases											
(*) Figures that are based on fewer than 25 unweighted cases											

Table RH.15 and Figure RH.2 present the distribution of women who had a live birth in the two years preceding the survey by receipt of post-natal health checks within two days of birth for the mother

and the newborn, thus combining the indicators presented in Tables RH.13 and RH.14. The results shows that for 59 percent of live births, both the mothers and their newborns received either a health check following birth or a timely PNC visit, whereas for 36 percent of births neither received health checks or timely visits. Urban births (63 percent) were better served with health checks or timely visits as compared to rural births (55 percent). Access and use of post-natal care had very clear correlations with education and wealth of the woman, where increasing education and wealth tended to associate with better coverage.

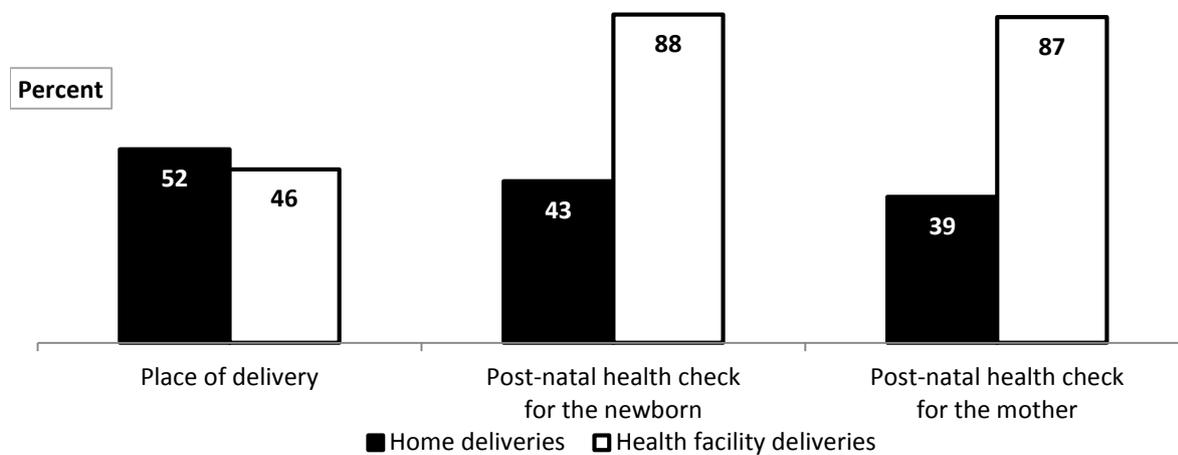
Table RH.15: Post-natal health checks for mothers and newborns

Percent distribution of women age 15-49 years with a live birth in the last two years by post-natal health checks for the mother and newborn, within two days of the most recent birth, Bungoma County MICS, 2013/14

	Post-natal health checks within two days of birth for:				Total	Number of women with a live birth in the last two years
	Both mothers and newborns	Mothers only	Newborns only	Neither mother nor newborn		
Total	58.9	1.4	4.0	35.7	100	311
Area						
Urban	63.4	0.0	3.8	32.8	100	137
Rural	55.4	2.5	4.1	37.9	100	174
Mother's age at birth						
Less than 20	51.3	0.0	4.3	44.4	100	33
20-34	58.8	1.9	4.8	34.4	100	227
35-49	64.4	0.0	0.0	35.6	100	51
Place of delivery						
Home	38.2	0.6	5.0	56.2	100	161
Health facility	84.8	2.4	3.0	9.9	100	144
Public	86.2	2.8	1.8	9.2	100	120
Private	77.7	0.0	8.9	13.4	100	24
Type of delivery						
Vaginal birth	57.8	1.5	4.1	36.7	100	302
C-section	(*)	(*)	(*)	(*)	100.0	9
Education						
None	(*)	(*)	(*)	(*)	100.0	5
Primary	52.3	0.0	4.3	43.5	100	189
Secondary+	71.0	3.8	3.0	22.2	100	116
Wealth index quintile						
Poorest	51.6	0.0	1.3	47.2	100	68
Second	46.3	0.0	7.7	46.1	100	65
Middle	59.6	0.0	9.0	31.4	100	55
Fourth	61.7	1.8	2.8	33.7	100	56
Richest	75.6	5.0	0.0	19.3	100	68
Ethnicity of household head						
Luhya	57.8	1.6	4.2	36.3	100	272
Other ethnic group	66.6	0.0	2.3	31.2	100	39

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

Figure RH.2: Place of delivery and post-natal health checks, Bungoma, 2013/14



8. Early Childhood Development

This chapter focuses on early childhood care and development, quality of care, child support for learning in the home, learning materials available for child use such as reading books and toys, and the developmental status of children under-5 years of age.

8.1 Early Childhood Care and Education

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

The Government of Kenya recognizes the importance of early childhood development (ECD) for attainment of Education for All (EFA) and the Millennium Development Goals (MDGs). The first goal of EFA obligates governments to expand early childhood care. In particular, the Government has demonstrated concern for improving the well-being of young children by enacting the Children's Act, 2001, which has managed to amalgamate all the laws of children into one document. The Act is now a legal instrument that not only protects children, but also advocates for them. Furthermore, the Government of Kenya developed Early Childhood Development Service Standard Guidelines and a National Early Childhood Development Policy Framework in 2006 which provide ECD standards, a co-ordination mechanism and explicitly define the roles of parents, communities, various Government ministries and departments, development partners, and other stakeholders in the provision of ECD services in the country.^{86, 87}

Table CD.1 presents the results on children age 36-59 months who are attending an organized early childhood education programme in Bungoma County. About 37 percent of children age 36-59 months are attending an organised early childhood education programme. Urban/rural differentials are notable – the proportion is 49 percent in urban areas, compared with 27 percent in rural areas. No gender differentials exist. The proportions of children attending early childhood education programmes at ages 36-47 months and 48-59 months are 23 percent and 57 percent, respectively. Participation in these programmes increases with the mother's level of education, as well as household wealth (22 percent for the poorest households compared with 64 percent for the richest).

⁸⁶ Government of Kenya. 2006. National Early Childhood Development Policy Framework 2006

⁸⁷ Government of Kenya. 2006. Early Childhood Development Service Standard Guidelines for Kenya 2006.

Table CD.1: Early childhood education		
Percentage of children age 36-59 months who are attending an organized early childhood education programme, Bungoma County MICS, 2013/14		
	Percentage of children age 36-59 months attending early childhood education ¹	Number of children age 36-59 months
Total	36.8	367
Sex		
Male	37.0	177
Female	36.7	191
Area		
Urban	48.9	162
Rural	27.3	206
Age of child		
36-47 months	22.7	215
48-59 months	56.7	152
Mother's education		
None	(*)	21
Primary	30.7	226
Secondary+	51.7	120
Wealth index quintile		
Poorest	22.2	84
Second	33.9	84
Middle	42.7	66
Fourth	30.3	75
Richest	63.9	58
¹ MICS indicator 6.1 - Attendance to early childhood education		
(*) Figures that are based on fewer than 25 unweighted cases		

8.2 Quality of Care

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.⁸⁸ In this context, engagement of adults in activities with children, presence of books in the home for the child, and the conditions of care are important indicators of quality of home care. As set out in *A World Fit for Children*, "children should be physically healthy, mentally alert, emotionally secure, socially competent and ready to learn."⁸⁹

Information on a number of activities that support early learning was collected in the survey. These included the involvement of adults with children in the following activities: reading books or looking

⁸⁸ Grantham-McGregor, S et al. 2007. *Developmental Potential in the First 5 Years for Children in Developing Countries*. The Lancet 369: 60–70

Belsky, J et al. 2006. *Socioeconomic Risk, Parenting During the Preschool Years and Child Health Age 6 Years*. European Journal of Public Health 17(5): 511–2.

⁸⁹ UNICEF. 2002. *A World Fit For Children* adopted by the UN General Assembly at the 27th Special Session, 10 May 2002: 2.

at picture books, telling stories, singing songs, taking children outside the home, compound or yard, playing with children, and spending time with children naming, counting, or drawing things.

For almost three quarters (74 percent) of children age 36-59 months, an adult household member engages in four or more activities that promote learning and school readiness (Table CD.2). The mean number of activities that adults engage with children is five. Table CD.2 also indicates that the father's involvement in such activities is very minimal. Only seven percent of children age 36-59 months have fathers who are involved in four or more activities, with one activity as the mean number of activities they are involved in. Mother's engagement in four or more activities that promote learning is 21 percent, with a mean number of activities at two. The proportions of adults, fathers and mothers engaging in four or more activities with children are similar for boys and girls. Mother's engagement is generally higher across all socio-economic variables compared with father's involvement.

Table CD.2: Support for learning

Percentage of children age 36-59 months with whom adult household members engaged in activities that promote learning and school readiness during the last three days, and engagement in such activities by biological fathers and mothers, Bungoma County MICS, 2013/14

	Percentage of children with whom adult household members have engaged in four or more activities ¹	Mean number of activities with adult household members	Percentage of children living with their:		Number of children age 36-59 months	Percentage of children with whom biological fathers have engaged in four or more activities ²	Mean number of activities with biological fathers	Number of children age 36-59 months living with their biological fathers	Percentage of children with whom biological mothers have engaged in four or more activities ³	Mean number of activities with biological mothers	Number of children age 36-59 months living with their biological mothers
			Biological father	Biological mother							
Total	73.7	4.5	63.7	83.7	367	6.8	0.6	234	20.7	1.5	307
Sex											
Male	72.5	4.5	63.2	82.2	177	7.5	0.6	112	22.1	1.7	145
Female	74.9	4.4	64.2	85.0	191	6.1	0.5	122	19.4	1.4	162
Area											
Urban	70.7	4.5	59.7	78.5	162	7.4	0.7	97	22.0	1.7	127
Rural	76.2	4.4	66.9	87.8	206	6.3	0.5	137	19.7	1.4	180
Age											
36-47 months	73.3	4.4	62.4	83.2	215	4.8	0.4	134	18.3	1.4	179
48-59 months	74.4	4.5	65.6	84.4	152	9.7	0.7	100	24.2	1.8	128
Mother's education^a											
None	(*)	(*)	(*)	(*)	21	(*)	(*)	9	(*)	(*)	11
Primary	72.0	4.4	66.0	86.2	226	5.9	0.5	149	14.9	1.2	195
Secondary+	82.8	4.8	63.1	84.3	120	9.7	0.8	76	35.5	2.4	101
Father's education											
None	(*)	(*)	(*)	(*)	4	(*)	(*)	4	(*)	(*)	4
Primary	75.1	4.4	100.0	98.8	134	9.5	0.8	134	19.7	1.6	132
Secondary+	78.1	4.7	100.0	93.6	90	11.5	0.9	90	35.0	2.4	84
Father not in the household	68.5	4.3	0.0	60.6	133	na	na	na	13.8	1.0	81

Wealth index quintile											
Poorest	64.7	3.8	56.6	76.4	84	1.2	0.2	48	15.2	1.2	64
Second	78.9	4.6	69.1	85.8	84	14.8	0.9	58	27.3	1.8	72
Middle	(70.5)	(4.5)	(50.2)	(84.3)	66	(3.4)	(0.4)	33	(11.1)	(1.0)	56
Fourth	71.7	4.6	76.7	87.3	75	3.9	0.4	58	19.8	1.8	65
Richest	85.6	4.9	64.8	85.8	58	11.1	1.0	38	31.4	2.1	50
Ethnicity of household head											
Luhya	73.9	4.5	65.0	83.9	334	6.5	0.5	217	21.0	1.5	280
Other ethnic group	(71.1)	(4.4)	(51.4)	(82.9)	33	(10.1)	(0.8)	17	(18.8)	(1.7)	27
¹ MICS indicator 6.2 - Support for learning											
² MICS Indicator 6.3 - Father's support for learning											
³ MICS Indicator 6.4 - Mother's support for learning											
na: not applicable											
^a The background characteristic "Mother's education" refers to the education level of the respondent to the Questionnaire for Children Under Five, and covers both mothers and primary caretakers, who are interviewed when the mother is not listed in the same household. Since indicator 6.4 reports on the biological mother's support for learning, this background characteristic refers to only the educational levels of biological mothers when calculated for the indicator in question.											
() Figures that are based on 25-49 unweighted cases (*) Figures that are based on fewer than 25 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. Mothers/caretakers of all children under-5 years were asked about the number of children's books or picture books they have for the child, and the types of playthings that are available at home.

In Bungoma County, Table CD.3 shows that only four percent of children age 0-59 months live in households where at least three children's books are present for the child. The proportion of children with 10 or more books is one percent. Thirteen percent of children who have three or more children's books are from the richest households compared with less than one percent in the poorest households. A higher percentage of urban children have access to children's books than those living in rural households: the proportion is six percent in urban areas, compared with three percent in rural areas. The presence of children's books is positively associated with the child's age: seven percent of children age 24-59 months live in households where three or more children books are present, while the figure is less than one percent for children age 0-23 months.

The types of playthings included in the survey contribute to the development of a child. Such playthings are homemade toys (dolls and cars, or other toys made at home), toys that came from a store, and household objects (pots and bowls) or objects and materials found outside the home (sticks, rocks, animal shells, or leaves). Fifty-five percent of children age 0-59 months have two or more types of playthings to play with in their homes. About 78 percent play with household objects or objects found outside, 52 percent play with homemade toys, and 22 percent of children play with toys that came from a store.

The proportion of children who have two or more types of playthings to play with increases with the child's age. Sixty-seven percent of children age 24-59 months have two or more playthings compared with 35 percent of children age 0-23 months. The same pattern is observed for mother's education where the proportion of children with two or more things to play with increases with an increase in mother's level of education.

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, Bungoma County MICS, 2013/14							
	Percentage of children living in households that have for the child:		Percentage of children who play with:				Number of children under age 5
	3 or more children's books ¹	10 or more children's books	Homemade toys	Toys from a shop/manufactured toys	Household objects/objects found outside	Two or more types of playthings ²	
Total	4.4	0.5	51.9	21.8	77.6	54.9	846
Sex							
Male	4.9	1.1	52.2	21.5	77.2	54.0	414
Female	3.9	0.0	51.5	22.2	77.9	55.6	432
Area							
Urban	5.8	0.8	52.3	25.9	81.0	56.9	376
Rural	3.2	0.3	51.5	18.5	74.8	53.2	470
Age							
0-23 months	0.4	0.0	32.6	17.9	52.0	35.3	319
24-59 months	6.8	0.9	63.5	24.2	93.0	66.7	527
Mother's education							
None	(0.0)	(0.0)	(46.6)	(9.8)	(73.0)	(42.2)	34
Primary	2.1	0.3	50.7	13.8	78.0	51.9	514
Secondary+	8.7	1.1	54.5	37.0	77.3	61.5	298
Wealth index quintile							
Poorest	0.2	0.0	50.8	5.5	75.3	51.5	199
Second	1.1	0.8	46.4	9.1	78.1	45.6	184
Middle	4.7	0.0	55.5	16.4	76.8	54.9	162
Fourth	5.2	1.3	52.7	29.2	80.5	57.9	157
Richest	13.0	0.7	55.3	58.9	77.7	68.1	143
Ethnicity of household head							
Luhya	4.3	0.6	52.3	20.9	78.2	55.1	762
Other ethnic group	4.6	0.0	48.2	30.1	71.6	52.9	84
¹ MICS indicator 6.5 - Availability of children's books							
² MICS indicator 6.6 - Availability of playthings							
() Figures that are based on 25-49 unweighted cases							

Leaving children alone or in the presence of other young children is known to increase the risk of injuries.⁹⁰ In Bungoma County MICS, two questions were asked to find out whether children age 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 41 percent of children age 0-59 months are left in the care of other children, while 20 percent are left alone. Combining the two care indicators, it shows that 44 percent of children are left with inadequate care, either by being left alone or in the care of another child. Children age 24-59 months are left with inadequate care more (51 percent) than those age 0-23 months (33 percent). Differentials in children under five who are left alone or left in the care of another child younger than 10 years by residence also exist. More children in rural areas (47 percent) are left with

⁹⁰ Grossman, DC. 2000. The History of Injury Control and the Epidemiology of Child and Adolescent Injuries. The Future of Children, 10(1): 23-52.

inadequate care than in urban areas (40 percent). On the other hand, inadequate care is less prevalent among children whose mothers had at least secondary education (37 percent), as opposed to children whose mothers had no education (49 percent). Majority of children age 24-59 months (51 percent) are left with inadequate care than those of age 0-23 months (33 percent).

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, Bungoma County MICS, 2013/14

	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	
Total	20.0	41.1	44.2	846
Sex				
Male	20.7	42.2	45.2	414
Female	19.3	40.1	43.3	432
Area				
Urban	14.8	37.0	40.2	376
Rural	24.1	44.4	47.4	470
Age				
0-23 months	12.2	30.6	32.8	319
24-59 months	24.7	47.5	51.1	527
Mother's education				
None	(25.3)	(40.4)	(40.4)	34
Primary	22.5	45.6	48.9	514
Secondary+	15.1	33.4	36.7	298
Wealth index quintile				
Poorest	17.0	39.1	46.0	199
Second	23.4	50.5	51.6	184
Middle	25.0	42.0	43.4	162
Fourth	19.2	42.4	46.4	157
Richest	14.9	29.3	30.9	143
Ethnicity of household head				
Luhya	20.8	42.4	45.6	762
Other ethnic group	12.4	29.1	31.1	84
¹ MICS indicator 6.7 - Inadequate care				
() Figures that are based on 25-49 unweighted cases				

8.3 Developmental Status of Children

Early childhood 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.⁹¹

⁹¹ Shonkoff, J and Phillips, D (eds). 2000. *From neurons to neighborhoods: the science of early childhood development*. Committee on Integrating the Science of Early Childhood Development, National Research Council, 2000.

A 10-item module was used to calculate the Early Childhood Development Index (ECDI). The primary purpose of the ECDI is to inform public policy regarding the developmental status of children in Bungoma County. The index is based on selected milestones that children are expected to achieve by ages 3 and 4. The 10 items used to determine if children are developmentally on track are in four domains:

Literacy-numeracy: Children are identified as being developmentally on track based on whether they can identify/name at least ten letters of the alphabet, whether they can read at least four simple, popular words, and whether they know the name and recognize the symbols of all numbers from 1 to 10. If at least two of these are true, then the child is considered developmentally on track.

Physical: If the child can pick up a small object with two fingers, like a stick or a rock from the ground and/or the mother/caretaker does not indicate that the child is sometimes too sick to play, then the child is regarded as being developmentally on track in the physical domain.

Social-emotional: Children are considered to be developmentally on track if two of the following are true: If the child gets along well with other children, if the child does not kick, bite, or hit other children and if the child does not get distracted easily.

Learning: If the child follows simple directions on how to do something correctly and/or when given something to do, is able to do it independently, then the child is considered to be developmentally on track in this domain.

ECDI is then calculated as the percentage of children who are developmentally on track in at least three of these four domains. The results are presented in Table CD.5.

In Bungoma County, 72 percent of children age 36-59 months are developmentally on track. The ECDI is 85 percent among children age 48-59 months and 63 percent among those age 36-47 months, since children develop more skills with increasing age. A higher ECDI is reported in children attending to an early childhood education programme at 84 percent compared with 65 percent among those who are not attending.

The analysis of four domains of child development shows that 96 percent of children are on track in the physical domain, 94 percent in the learning domain, 55 percent in the social-emotional domain, but much less on track in the literacy-numeracy domain (37 percent). In each individual domain, higher scores tend to be associated with children attending an early childhood education programme and in older children.

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, Bungoma County MICS, 2013/14

	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		
Total	36.8	95.5	54.5	93.5	72.1	367
Sex						
Male	33.3	96.9	52.9	94.4	71.2	177
Female	40.1	94.2	56.1	92.7	73.1	191
Area						
Urban	39.0	96.1	53.0	93.1	72.4	162
Rural	35.1	95.0	55.7	93.9	71.9	206
Age						
36-47 months	22.0	94.4	51.6	92.1	62.9	215
48-59 months	57.7	97.0	58.7	95.6	85.2	152
Attendance to early childhood education						
Attending	61.0	99.2	55.6	95.3	83.9	135
Not attending	22.7	93.3	53.9	92.5	65.3	232
Mother's education						
None	(25.8)	(86.2)	(40.3)	(86.2)	(53.6)	21
Primary	31.5	96.3	57.4	95.2	70.5	226
Secondary+	48.9	95.6	51.7	91.6	78.6	120
Wealth index quintile						
Poorest	29.1	94.7	45.5	93.9	66.3	84
Second	33.1	95.4	55.5	93.9	72.7	84
Middle	37.6	92.0	59.5	90.2	72.8	66
Fourth	39.3	96.9	60.2	95.5	73.7	75
Richest	49.5	98.9	53.4	93.7	76.9	58
Ethnicity of household head						
Luhya	37.5	95.3	54.0	94.0	72.6	334
Other ethnic group	28.9	97.0	59.1	88.2	67.7	33
¹ MICS indicator 6.8 - Early child development index						
() Figures that are based on 25-49 unweighted cases						

9. Literacy and Education

Kenya is a signatory to several critical instruments for the enhancement of the rights to quality education for its citizens. These include the Universal Declaration on Human Rights (1948); the minimum Age Convention (1973); the convention on the Elimination of all forms of Discrimination Against Women (CEDAW) of 1979; the Convention on the rights of the Child (CRC) of 1989; the International Convention on the Protection of the rights of All Migrant workers and members of their families (1990); the Dakar Framework of Action on EFA (2000); the Millennium Development Goals (MDGs) 2000; and the convention on the Rights of Persons with Disabilities (2006). According to the Constitution of Kenya, Section 43, 1f, every child has the right to education.⁹²

Chapter Nine focuses on literacy among young women, school readiness, primary and secondary school participation and gender parity.

9.1 Literacy among Young Women

The Youth Literacy Rate reflects the outcomes of primary education over the previous 10 years or so. As a measure of the effectiveness of the primary education system, it is often seen as a proxy measure of social progress and economic achievement. Since a men's questionnaire was not administered as part of the Bungoma County MICS, the results are based only on female age 15-24 years. Literacy is assessed on the ability of the respondent to read a short simple statement or based on school attendance.

Table ED.1 indicates that 85 percent of young women in Bungoma County are literate and that literacy status varies by place of residence (88 percent in urban and 83 percent in rural areas).⁹³ Among the young women who stated that primary school is their highest level of education, 75 percent are able to read the statement shown to them. There is no difference in literacy among the young women age 15-19 years and those of age 20-24 years. Literacy varies by wealth quintiles. About 75 percent of women in the poorest wealth index quintile are literate with those from the second quintile to the richest ranging from 85 percent for the middle to 89 percent for the fourth quintile.

⁹² The Constitution of Kenya 2010

⁹³ Some potential underestimation may be present in the low literacy rate, due to non-response by women with secondary or higher education who are attending school elsewhere and are not present in the household at the time of the interview.

Table ED.1: Literacy (young women)			
Percentage of women age 15-24 years who are literate, Bungoma County MICS, 2013/14			
	Percentage literate ¹	Percentage not known	Number of women age 15-24 years
Total	85.1	0.8	487
Area			
Urban	87.9	0.0	228
Rural	82.7	1.4	259
Education			
None	(*)	(*)	2
Primary	74.8	1.3	278
Secondary+	100.0	0.0	206
Age			
15-19	84.8	1.2	296
20-24	85.6	0.0	191
Wealth index quintile			
Poorest	74.6	0.0	63
Second	86.0	0.7	93
Middle	85.0	0.7	108
Fourth	88.9	1.8	107
Richest	86.7	0.3	116
Ethnicity of household head			
Luhya	84.9	0.4	434
Other ethnic group	86.6	3.4	53
¹ MICS indicator 7.1; MDG indicator 2.3 - Literacy rate among young women			
(*) Figures that are based on fewer than 25 unweighted cases			

9.2 School Readiness

Pre-primary school attendance is important for the readiness of children to education. Table ED.2 shows the proportion of children in the first grade of primary school (regardless of age) who attended pre-primary the previous year.⁹⁴ Overall, 43 percent of children who are currently attending the first grade of primary school were attending pre-primary the previous year. More than half of the children in first grade in urban areas (56 percent) had attended pre-primary the previous year compared to 35 percent among children living in rural areas.

⁹⁴ The computation of the indicator does not exclude repeaters, and therefore is inclusive of both children who are attending primary school for the first time, as well as those who were in the first grade of primary school the previous school year and are repeating. Children repeating may have attended Pre-primary prior to the school year during which they attended the first grade of primary school for the first time; these children are not captured in the numerator of the indicator

Table ED.2: School readiness		
Percentage of children attending first grade of primary school who attended Pre-primary the previous year, Bungoma County MICS, 2013/14		
	Percentage of children attending first grade who attended Pre-primary school in previous year ¹	Number of children attending first grade of primary school
Total	42.7	243
Sex		
Male	43.7	132
Female	41.6	111
Area		
Urban	56.2	92
Rural	34.5	151
Mother's education		
None	(*)	17
Primary	45.9	141
Secondary+	34.5	84
Cannot be determined ^a	(*)	1
Wealth index quintile		
Poorest	52.1	68
Second	49.3	50
Middle	37.0	42
Fourth	25.7	41
Richest	42.3	41
Ethnicity of household head		
Luhya	41.4	221
Other ethnic group	(56.1)	22
¹ MICS indicator 7.2 – School readiness		
^a Children age 15 or higher at the time of the interview whose mothers were not living in the household		
() Figures that are based on 25-49 unweighted cases		
(*) Figures that are based on fewer than 25 unweighted cases		

9.3 Primary and Secondary School Participation

Achievement of Universal Primary Education was one of the Millennium Development Goals. 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.

In Kenya, the structure of Early Childhood Development and Education (ECDE) provision is divided into two parts: 0-2 and 3-5 year-old children. Children are expected to enter primary school at age 6 and secondary school at age 14. Primary school has 8 grades (1-8) and secondary school comprises 4 grades (1-4). In primary school, grades are referred to as Standard 1 to Standard 8 after which a Kenya Certificate of Primary Education (KCPE) is attained. For secondary school, grades are referred to as

Form 1 to Form 4, and a Kenya Certificate of Secondary Education (KCSE) is attained after successful completion of the full cycle. The school year typically runs from January to November.⁹⁵

In Bungoma County, 62 percent of children who are of primary school entry age (age 6 years) are attending the first grade of primary school (Table ED.3). The proportion of 6-year old children entering grade 1 is similar for boys (63 percent) and girls (61 percent), and is higher for children with mothers with secondary or higher education (74 percent) compared to children whose mothers have only primary education (57 percent).

Table ED.3: Primary school entry		
Percentage of children of primary school entry age entering grade 1 (net intake rate), Bungoma County MICS, 2013/14		
	Percentage of children of primary school entry age entering grade 1 ¹	Number of children of primary school entry age
Total	61.9	203
Sex		
Male	63.0	105
Female	60.7	98
Area		
Urban	66.1	87
Rural	58.7	116
Mother's education		
None	(*)	17
Primary	57.2	123
Secondary+	74.4	63
¹ MICS indicator 7.3 - Net intake rate in primary education		
(*) Figures that are based on fewer than 25 unweighted cases		

Table ED.4 provides the percentage of children of primary school age 6 to 13 years who are attending primary or secondary school⁹⁶ and those who are out of school. The majority of children of primary school age (91 percent) are attending school while eight percent are out of school. The net attendance rate for children age 6 is low at 70 percent. Net attendance ratio to primary school is similar in urban and rural areas (93 and 89 percent, respectively), and varies slightly between children whose mothers have secondary or higher education (95 percent) and children whose mothers have no education (87 percent). Variations are observed by household wealth where the net attendance rate is 84 percent for children in the poorest households and 97 percent for those in the richest households.

⁹⁵ Ministry of Education Science and Technology, 2005. Kenya Education Sector Support Programme 2005-2010.

⁹⁶ 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 and out of school children

Percentage of children of primary school age attending primary or secondary school (adjusted net attendance ratio), percentage attending preschool, and percentage out of school, Bungoma County MICS, 2013/14

	Male					Female					Total				
	Percentage of children:					Percentage of children:					Percentage of children:				
	Net attendance ratio (adjusted)	Not attending school or preschool	Attending preschool	Out of school ^a	Number of children	Net attendance ratio (adjusted)	Not attending school or preschool	Attending preschool	Out of school ^a	Number of children	Net attendance ratio (adjusted) ¹	Not attending school or preschool	Attending preschool	Out of school ^a	Number of children
Total	90.7	1.7	6.4	8.2	717	90.8	3.6	5.0	8.6	780	90.7	2.7	5.7	8.4	1,496
Area															
Urban	91.8	1.4	6.9	8.2	296	94.3	2.6	3.2	5.7	330	93.1	2.0	4.9	6.9	626
Rural	89.9	2.0	6.1	8.1	420	88.2	4.4	6.4	10.7	450	89.0	3.2	6.3	9.5	870
Age at beginning of school year															
6	66.6	2.3	31.1	33.4	105	73.1	8.0	17.4	25.3	98	69.7	5.0	24.5	29.5	203
7	90.0	1.6	5.3	6.9	80	81.3	7.9	10.8	18.7	97	85.2	5.1	8.3	13.4	177
8	92.4	1.0	3.7	4.8	121	91.4	4.1	4.4	8.6	105	91.9	2.5	4.1	6.5	226
9	100.0	0.0	0.0	0.0	72	92.3	2.3	2.9	5.1	124	95.2	1.4	1.8	3.2	196
10	95.5	2.9	1.6	4.5	78	97.9	0.8	1.3	2.1	95	96.8	1.7	1.4	3.2	173
11	98.3	0.0	1.7	1.7	85	98.1	1.0	0.9	1.9	73	98.2	0.5	1.3	1.8	159
12	93.0	4.4	0.0	4.4	94	97.6	1.1	1.4	2.4	105	95.4	2.7	0.7	3.4	200
13	96.5	1.1	2.4	3.5	81	96.4	3.6	0.0	3.6	81	96.5	2.3	1.2	3.5	163
Mother's education															
None	84.7	3.1	9.9	13.0	54	88.5	3.3	3.7	7.1	78	86.9	3.2	6.3	9.5	132
Primary	90.1	1.6	7.5	9.1	433	88.2	4.0	7.6	11.6	452	89.1	2.8	7.5	10.4	885
Secondary+	93.3	1.5	3.7	5.2	229	96.2	3.1	.8	3.8	247	94.8	2.3	2.2	4.5	476
Cannot be determined ^b	-	-	-	-	0	(*)	(*)	(*)	(*)	2	(*)	(*)	(*)	(*)	2
Wealth index quintile															
Poorest	85.0	2.8	12.2	15.0	154	82.5	8.2	9.2	17.5	174	83.7	5.7	10.6	16.3	328
Second	93.6	0.9	5.5	6.4	137	91.8	5.1	3.1	8.2	174	92.6	3.2	4.2	7.4	311

Middle	90.2	0.5	9.4	9.8	156	92.2	1.0	5.3	6.3	155	91.2	0.7	7.4	8.1	312
Fourth	89.1	3.4	2.7	6.1	148	92.2	1.5	5.6	7.0	158	90.7	2.4	4.2	6.6	306
Richest	97.1	0.9	1.0	1.9	122	97.6	1.0	0.4	1.4	118	97.3	0.9	0.7	1.6	239
Ethnicity of household head															
Luhya	90.7	1.5	6.5	8.0	662	90.3	3.9	5.1	9.0	716	90.5	2.8	5.8	8.5	1,377
Other ethnic group	90.2	4.6	5.2	9.8	55	95.8	0.0	4.2	4.2	63	93.2	2.1	4.7	6.8	119

¹7.S1 - Primary school net attendance ratio (adjusted)

^a The percentage of children of primary school age out of school are those not attending school and those attending preschool

^b Children age 15 or higher at the time of the interview whose mothers were not living in the household

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

The secondary school net attendance ratio is presented in Table ED.5.⁹⁷ About a third (32 percent) of the children of secondary school age are attending secondary school, 55 percent are attending primary school and 13 percent are out of school. The secondary net attendance ratio is 35 percent for females and 29 percent for males. In urban areas, 36 percent of children of secondary school age are attending secondary school, while 29 percent of them are attending in rural areas. The proportion of secondary school age children out of school is very similar in urban and rural areas. Secondary net attendance ratio increases with the age of the child at the beginning of the school year, and with household wealth.

⁹⁷ 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 and out of school children

Percentage of children of secondary school age attending secondary school or higher (adjusted net attendance ratio), percentage attending primary school, and percentage out of school, Bungoma County MICS, 2013/14

	Male				Female				Total			
	Percentage of children:				Percentage of children:				Percentage of children:			
	Net attendance ratio (adjusted)	Attending primary school	Out of school ^a	Number of children	Net attendance ratio (adjusted)	Attending primary school	Out of school ^a	Number of children	Net attendance ratio (adjusted) ¹	Attending primary school	Out of school ^a	Number of children
Total	28.5	59.8	11.5	250	34.6	50.5	13.4	295	31.8	54.8	12.5	545
Area												
Urban	28.0	59.9	11.6	110	42.6	43.4	14.0	121	35.6	51.3	12.9	231
Rural	28.8	59.8	11.5	140	29.1	55.5	12.9	174	28.9	57.4	12.3	314
Age at beginning of school year												
14	15.7	76.6	7.7	69	17.3	74.4	5.8	99	16.6	75.3	6.6	167
15	21.7	71.0	7.3	82	41.5	44.3	14.2	62	30.2	59.6	10.2	144
16	34.7	53.0	12.3	55	39.4	46.5	11.8	81	37.5	49.1	12.0	136
17	53.4	20.9	24.6	44	51.1	20.2	28.7	54	52.1	20.5	26.9	98
Mother's education												
None	(*)	(*)	(*)	12	(*)	(*)	(*)	6	(*)	(*)	(*)	18
Primary	14.2	80.1	5.7	89	19.8	71.9	6.0	107	17.3	75.6	5.9	195
Secondary+	(49.0)	(47.5)	(3.5)	53	50.9	37.1	12.0	60	50.0	42.0	8.0	113
Cannot be determined ^b	32.4	46.7	20.3	96	38.8	39.5	20.1	121	36.0	42.7	20.2	218
Wealth index quintile												
Poorest	11.1	76.2	12.7	50	(11.8)	(76.9)	(11.3)	36	11.4	76.5	12.1	86
Second	(14.1)	(70.1)	(15.8)	53	(26.2)	(58.0)	(13.5)	55	20.3	64.0	14.6	109
Middle	20.9	68.6	10.4	54	27.3	57.9	14.8	65	24.4	62.8	12.8	120
Fourth	(46.8)	(46.8)	(5.4)	48	40.1	50.9	7.2	66	42.9	49.2	6.4	114
Richest	54.6	32.4	12.9	45	53.7	24.9	18.7	73	54.1	27.8	16.5	117
Ethnicity of household head												

Luhya	27.6	60.6	11.6	232	34.2	51.3	12.9	271	31.1	55.6	12.3	503
Other ethnic group	(41.1)	(48.0)	(10.9)	18	(38.8)	(42.6)	(18.6)	24	39.8	44.9	15.3	42

¹ 7.S2 - Secondary school net attendance ratio (adjusted)

^a The percentage of children of secondary school age out of school are those who are not attending primary, secondary, or higher education

^b Children age 15 or higher at the time of the interview whose mothers were not living in the household

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

The MICS included only questions on school attendance in the current and previous year. Thus, the indicator is calculated by computing the cumulative probability of survival from the first to the last grade of primary school, as opposed to calculating the indicator for a real cohort that needs to be followed from the time a cohort of children entered primary school, up to the time they reached the last grade of primary school. Repeaters are excluded from the calculation of the indicator, because it is not known whether they will eventually graduate. As an example, the probability that a child will move from the first grade to the second grade is computed by dividing the number of children who moved from the first grade to the second grade (during the two consecutive school years covered by the survey) by the number of children who have moved from the first to the second grade plus the number of children who were in the first grade the previous school year, but dropped out. Both the numerator and denominator exclude children who repeated during the two school years under consideration.

The percentage of children entering first grade who eventually reach the last grade of primary school is presented in Table ED.6. The majority of the children starting grade 1 reach grade 8 (96 percent). There are no disparities by sex and place of residence.

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), Bungoma County MICS, 2013/14

	Percent attending grade 1 last school year who are in grade 2 this school year	Percent attending grade 2 last school year who are attending grade 3 this school year	Percent attending grade 3 last school year who are attending grade 4 this school year	Percent attending grade 4 last school year who are attending grade 5 this school year	Percent attending grade 5 last school year who are attending grade 6 this school year	Percent attending grade 6 last school year who are attending grade 7 this school year	Percent attending grade 7 last school year who are attending grade 8 this school year	Percent who reach grade 8 of those who enter grade 1 ¹
Total	100.0	100.0	100.0	99.7	98.6	98.9	98.5	95.7
Sex								
Male	100.0	100.0	100.0	99.5	97.6	98.1	98.6	93.9
Female	100.0	100.0	100.0	100.0	99.4	99.6	98.4	97.3
Area								
Urban	100.0	100.0	100.0	99.4	98.8	98.6	98.8	95.7
Rural	100.0	100.0	100.0	100.0	98.4	99.0	98.1	95.6
¹ 7.S3 - Children reaching last grade of primary								

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.

Table ED.7 shows that the primary school completion rate was 108 percent. The rate above 100 may be due to over-age children in the last grade of primary education. However, only 52 percent of the children who were attending the last grade of primary school in the previous school year were found to be attending the first grade of secondary school in the school year of the survey. The table also provides “effective” transition rate which takes account of the presence of repeaters in the final grade of primary school. This indicator better reflects situations in which pupils repeat the last grade of primary education but eventually make the transition to the secondary level. The simple transition rate tends to underestimate pupils’ progression to secondary school as it assumes that the repeaters never reach secondary school. The effective transition rate from primary to secondary was 54 percent.

Table ED.7: Primary school completion and transition to secondary school						
Primary school completion rates and transition and effective transition rates to secondary school, Bungoma County MICS, 2013/14						
	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	Effective transition rate to secondary school	Number of children who were in the last grade of primary school the previous year and are not repeating that grade in the current school year
Total	107.8	163	51.9	74	54.4	71
Sex						
Male	89.4	81	(56.1)	37	(58.9)	35
Female	126.2	81	(47.9)	38	(50.0)	36
Area						
Urban	120.0	80	(47.0)	42	(50.1)	39
Rural	96.0	83	(58.3)	32	(59.7)	32
Mother's education						
None	(*)	13	(*)	3	(*)	3
Primary	70.5	95	(*)	11	(*)	9
Secondary+	98.1	54	(55.8)	26	(57.5)	25
Cannot be determined ^a	(*)	1	(56.9)	34	(58.7)	33
¹ 7.S4 - Primary completion rate						
² 7.S5 - Transition rate to secondary school						
^a Children age 15 or higher at the time of the interview whose mothers were not living in the household						
() Figures that are based on 25-49 unweighted cases						
(*) Figures that are based on fewer than 25 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).⁹⁸ Notice that the ratios included here are

⁹⁸ UNESCO, 2015. EFA Monitoring Report 2015 -Education for All 2000-2015: Achievements and Challenges. Gender parity index (GPI) - Ratio of female to male values of a given indicator. A GPI between 0.97 and 1.03 indicates parity between the

obtained from net attendance ratios rather than gross attendance ratios. The latter provide an erroneous description of the GPI mainly because, in most cases, the majority of over-age children attending primary education tend to be boys.

The gender parity index for primary school is 1.00, suggesting boys and girls of primary school age attend primary education at the same rate. The GPI for secondary education is 1.22, indicating a higher secondary school attendance rate among girls of secondary age than among boys of the same age.

Table ED.8: Education gender parity						
Ratio of adjusted net attendance ratios of girls to boys, in primary and secondary school, Bungoma County MICS, 2013/14						
	Primary school			Secondary school		
	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
Total	90.8	90.7	1.00	34.6	28.5	1.22
Area						
Urban	94.3	91.8	1.03	42.6	28.0	1.52
Rural	88.2	89.9	0.98	29.1	28.8	1.01
Mother's education						
None	88.5	84.7	1.04	(*)	(*)	3.85
Primary	88.2	90.1	0.98	19.8	14.2	1.40
Secondary	96.2	93.3	1.03	50.9	49.0	1.04
Cannot be determined ^a	(*)	-	-	38.8	32.4	1.20
Wealth index quintile						
Poorest	82.5	85.0	0.97	(11.8)	11.1	1.06
Second	91.8	93.6	0.98	(26.2)	(14.1)	1.86
Middle	92.2	90.2	1.02	27.3	20.9	1.30
Fourth	92.2	89.1	1.03	40.1	(46.8)	0.86
Richest	97.6	97.1	1.00	53.7	54.6	0.98
Ethnicity of household head						
Luhya	90.3	90.7	1.00	34.2	27.6	1.24
Other ethnic group	95.7	91.1	1.05	(38.8)	(41.1)	0.94
	¹ 7.S6 - Gender parity index (primary school)					
	² 7.S7 - Gender parity index (secondary school)					
	^a Children age 15 or higher at the time of the interview whose mothers were not living in the household					
	() Figures that are based on 25-49 unweighted cases					
	(*) Figures that are based on fewer than 25 unweighted cases					

The percentage of girls in the total out of school population, in both primary and secondary school, are provided in Table ED.9. The table shows that at the primary level girls accounted for 54 percent of the out-of-school population and 58 percent at the secondary level.

genders. A GPI below 0.97 indicates a disparity in favour of males. A GPI above 1.03 indicates a disparity in favour of females.

Table ED.9: Out of school gender parity

Percentage of girls in the total out of school population, in primary and secondary school, Bungoma County MICS, 2013/14

	Primary school				Secondary school			
	Percentage of out of school children	Number of children of primary school age	Percentage of girls in the total out of school population of primary school age	Number of children of primary school age out of school	Percentage of out of school children	Number of children of secondary school age	Percentage of girls in the total out of school population of secondary school age	Number of children of secondary school age out of school
Total	8.4	1,496	53.5	126	12.5	545	57.8	68
Area								
Urban	6.9	626	(43.7)	43	12.9	231	(57.0)	30
Rural	9.5	870	58.6	82	12.3	314	(58.3)	39
Mother's education								
None	9.5	132	(43.8)	13	(*)	18	(*)	4
Primary	10.4	885	57.0	92	5.9	195	(*)	11
Secondary+	4.5	476	(44.1)	21	8.0	113	(*)	9
Cannot be determined ^a	(*)	2	na	na	20.2	218	(55.5)	44
Wealth index quintile								
Poorest	16.3	328	(56.8)	53	12.1	86	(*)	10
Second	7.4	311	(61.9)	23	14.6	109	(*)	16
Middle	8.1	312	(*)	25	12.8	120	(*)	15
Fourth	6.6	306	(*)	20	6.4	114	(*)	7
Richest	1.6	239	(*)	4	16.5	117	(*)	19
Ethnicity of household head								
Luhya	8.5	1,377	54.9	118	12.3	503	56.5	62
Other ethnic group	6.8	119	(33.1)	8	15.3	42	(*)	6

^a Children age 15 or higher at the time of the interview whose mothers were not living in the household

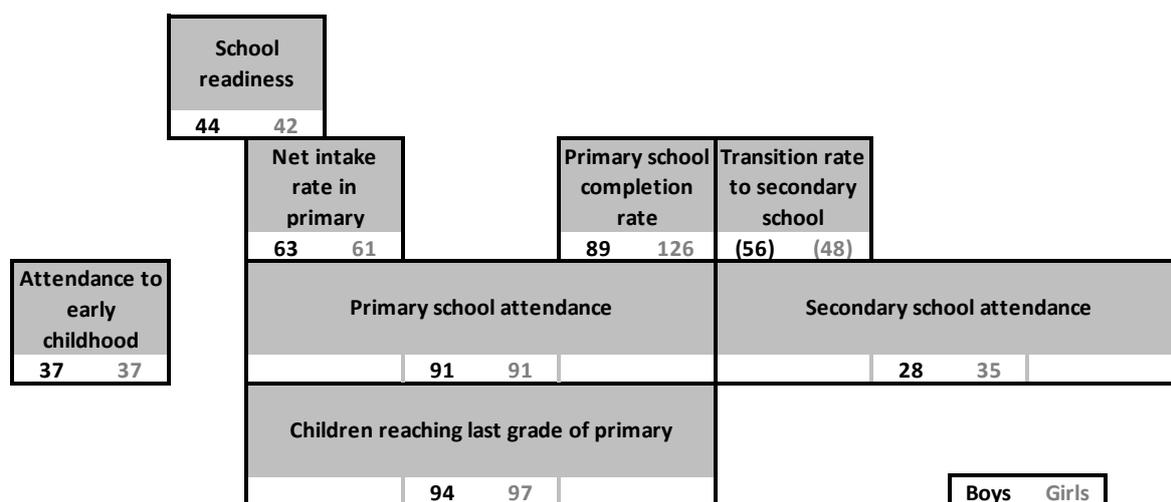
na: not applicable

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

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

Figure ED.1 brings together all of the attendance and progression related education indicators covered in this chapter, by sex. Information on attendance to early childhood education was also included, which was covered in Chapter 8, in Table CD.1.

Figure ED.1: Education indicators by sex (National System), Bungoma County MICS, 2013/14



All indicator values are in per cent and are calculated based on the national education system
 () Figures that are based on 25-49 unweighted cases

UNESCO developed the International Standard Classification of Education (ISCED) to facilitate comparisons of education statistics and indicators across countries on the basis of uniform and internationally agreed definitions^{99, 100}. The mapping of the Kenyan education system to the ISCED classification is as follows:

- ISCED Level 1 is Primary Education and corresponds to Primary grades Standard 1 to 6 in the Kenyan education system.
- ISCED Level 2 is Lower Secondary Education and corresponds to Primary grades Standard 7 and 8, and Secondary grades Form 1 and 2, in the Kenyan education system.
- ISCED Level 3 is Upper Secondary Education and corresponds to Secondary grades Form 3 and 4 in the Kenyan education system.

Table ED.10 ISCED shows key education indicators in Bungoma County according to the mapping of the Kenya education system to the ISCED 2011 education classification. These indicators therefore are not based on the Kenya education system but rather provide international comparison of same indicators as used in different countries education systems.

About 62 percent of children of primary school entry age enter grade 1. About 89 percent of children age 6-11 years are attending primary school according to the ISCED classification (i.e. Standard 1 to 6), and 58 percent of children age 12-17 are attending secondary school (ISCED levels 2 and 3). Ninety-

⁹⁹ <http://www.uis.unesco.org/Education/Pages/international-standard-classification-of-education.aspx>

¹⁰⁰ <http://www.uis.unesco.org/Education/ISCEDMappings/Pages/default.aspx>

eight percent of the children entering primary grade 1 are expected to reach grade 6 (the last grade of the ISCED 1 level), and 94 percent transition from primary (ISCED 1 level) to secondary (ISCED 2 level).

Table ED.10: Summary of education indicators (ISCED^a)

Summary of education indicators classified according to the International Standard Classification of Education (ISCED), Bungoma County MICS, 2013/14

	Primary school (ISCED 1)				Transition (ISCED 1 to 2)	Secondary school (ISCED 2+3)
	Percentage of children of primary school entry age entering grade 1 ¹	Net attendance ratio (adjusted) ²	Percent who reach grade 6 of those who enter grade 1 ³	Primary school completion rate ⁴	Transition rate to secondary school ⁵	Net attendance ratio (adjusted) ⁶
Total	61.9	89.1	98.3	132.2	94.4	57.5
Sex						
Male	63.0	89.4	97.1	113.5	92.7	51.6
Female	60.7	88.8	99.4	153.5	95.9	62.7
Gender parity index (GPI) ^{7, 8}	na	0.99	na	na	na	1.22
¹ MICS indicator 7.3 - Net intake rate in primary education						
² MICS indicator 7.4; MDG indicator 2.1 - Primary school net attendance ratio (adjusted)						
³ MICS indicator 7.6; MDG indicator 2.2 - Children reaching last grade of primary						
⁴ MICS indicator 7.7 - Primary completion rate						
⁵ MICS indicator 7.8 - Transition rate to secondary school						
⁶ MICS indicator 7.5 - Secondary school net attendance ratio (adjusted)						
⁷ MICS indicator 7.9; MDG indicator 3.1 - Gender parity index (primary school)						
⁸ MICS indicator 7.10; MDG indicator 3.1 - Gender parity index (secondary school)						
^a ISCED 1 are Standards 1-6, ISCED 2 are Standards 7-8 and Forms 1-2, and ISCED 3 are Forms 3-4.						
na: not applicable						

10. Child Protection

Kenya is committed to the survival, development and protection of children as demonstrated by its ratification of international treaties and conventions that include the 1989 United Nations Convention on the Rights of the Child (CRC), the Convention on the Elimination of all forms of Discrimination Against Women (CEDAW), the International Labour Organization (ILO) conventions on Prohibition of Child Labour and Worst Forms of Child Labour [*Chapter 182*] 1999, Palermo Protocol on Trafficking in Persons, 2000 and the Millennium Development Goals 2000 (MDGs). At regional level, Kenya ratified the 1990 African Charter on the Rights and Welfare of the Child (ACRWC).

The majority of these conventions and treaties have been domesticated into the Constitution and other enacted laws and policies that include: the Registration of Births and Deaths Act [*Chapter 149*], Rev 1990; the Children's Act, 2001; the Sexual Offences Act, 2003; the Female Genital Mutilation/Cutting Policy, 2009; the Counter Trafficking in Persons Act, 2010; the Kenya Citizenship and Immigration Act, 2011; the Labour Migration Policy, 2011; Prohibition of Female Genital Mutilation Act, 2011; among others.

This chapter discusses birth registration, child labour, child discipline, early marriage and polygyny, female genital mutilation/cutting (FGM/C), and women's attitudes towards domestic violence.

10.1 Birth Registration

A name and nationality is every child's right, enshrined in the Convention on the Rights of the Child (CRC) and other international treaties. Yet the births of around one in four children under the age of five worldwide have never been recorded.¹⁰¹ This lack of formal recognition by the State usually means that a child is unable to obtain a birth certificate. As a result, he or she may be denied health care or education. Later in life, the lack of official identification documents can mean that a child may enter into marriage or the labour market, or be conscripted into the armed forces, before the legal age. In adulthood, birth certificates may be required to: obtain social assistance; acquire a job in the formal sector; prove the right to inherit property; vote; obtain a passport; etc. Registering children at birth is the first step in securing their recognition before the law, safeguarding their rights, and ensuring that any violation of these rights does not go unnoticed.¹⁰²

Birth registration requirements

The Births and Deaths Registration Act, which makes registration of all births and deaths occurring in Kenya compulsory has the following legal provisions:

- The occurrence of a birth must be registered within six months.

¹⁰¹ UNICEF. 2014. *The State of the World's Children 2015*. UNICEF.

¹⁰² UNICEF. 2013. *Every Child's Birth Right: Inequities and trends in birth registration*. UNICEF.

- A registrar shall not register a birth after the expiry of six months without specific authority and payment of a late registration fee.
- Registration of a birth within six months is called **current registration** and is done free of charge.
- Registration of a birth after six months is called **late registration** and attracts a penalty of Ksh 100.
- Besides, such registration is only done by the respective county registrar at their own discretion.

Births take place either within health facilities or at home. For births occurring in health facilities, the person-in charge of each facility is responsible for reporting occurrence of such births. While the primary responsibility of reporting occurrence of a birth at home is on the parents.

The midwife is responsible for completing a register of birth for every birth immediately after delivery. For every birth occurring at home, the area assistant chief is expected to complete a register of birth after receiving reports, within six months, of its occurrence within their respective areas of jurisdiction.

All completed registers of birth, from all health facilities and sub-locations are transmitted to respective county civil registries once every month. Upon receipt, they are checked for completeness and accuracy after which respective sub-county civil registrars append their signatures, thereby certifying them as legal documents. These legal documents are supposed to be maintained under safe custody within respective sub-county civil registries for purposes of issuance of certificates and other related documents.

While registration of births is compulsory, acquisition of a birth certificate is not. When in need, one makes an application for such a certificate in the county in which the event occurred. Sub-county civil registrars authorise issuance of certificates of birth from registers of birth under their custody upon application, production of supportive documentation and payment of subscribed fees. An applicant is required to pay Ksh 50 in order to acquire a birth certificate. In case of any amendment on the register of birth, before a birth certificate is issued, an extra Ksh 50 is levied.

The Births and Deaths Registration Act has provision for registering births outside the mandatory six months. Respective sub-county civil registrars have the sole discretion in approving applications for late registration of births. However, applications for late registration of births within border counties have to be vetted through the ranks of the local administration before they reach respective sub-county civil registrars. All applications for late registration must be supported by documents in relation to key characteristics pertaining to the occurrence of the birth such as date and place of occurrence, parentage, etc.

Birth Registration Status

The Bungoma County MICS sought to provide an estimate of the extent of birth registration of children under-5 years of age. Mothers/caretakers of these children were asked whether children in their household had birth certificates. If they responded that a child did not have a birth certificate, additional questions were asked on whether the child's birth was registered and whether they knew how to register a birth. A child may not have been issued a birth certificate but the birth may have been registered.

Birth registration in this context includes:

- children whose birth certificates were seen by the interviewer;

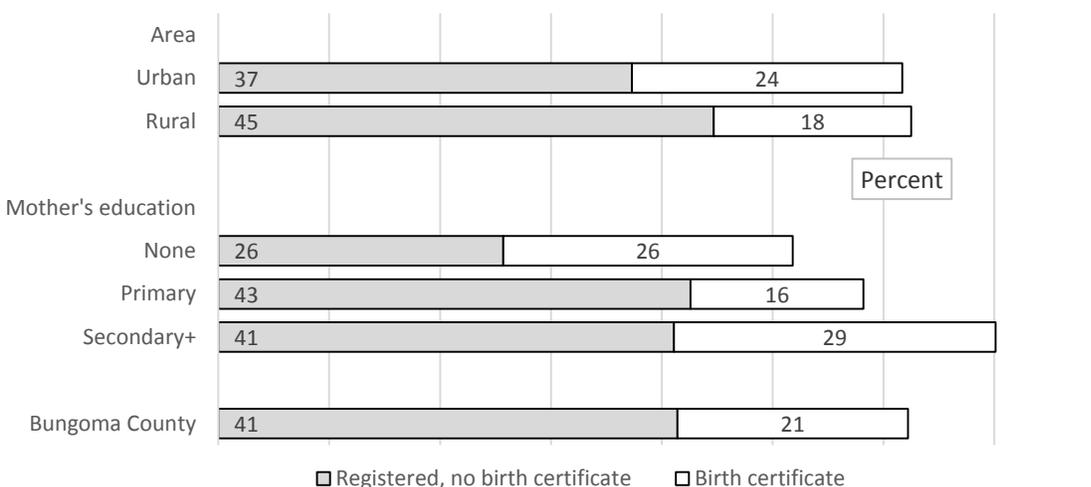
- children reported to have a birth certificate that was not seen by the interviewer; and
- children who did not have a birth certificate but were reported to have been registered.

In Bungoma County, the births of 62 percent of children under-5 years are registered (Table CP.1). There are no significant variations in birth registration depending on rural/urban residence or sex of the child, but birth registration increases with mother's education and household wealth. Only five percent showed a birth certificate to the interviewer. These findings are also summarized in Figure CP.1.

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, Bungoma County MICS, 2013/14							
	Children under age 5 whose birth is registered with civil authorities				Number of children under age 5	Children under age 5 whose birth is not registered	
	Has birth certificate		No birth certificate	Total registered ¹		Percent of children whose mother/caretaker knows how to register birth	Number of children under age 5 without birth registration
	Seen	Not seen					
Total	5.3	15.5	41.4	62.2	846	32.8	320
Sex							
Male	4.6	14.9	40.2	59.7	414	33.5	167
Female	5.9	16.0	42.6	64.5	432	32.0	153
Area							
Urban	8.0	16.4	37.3	61.7	376	28.8	144
Rural	3.1	14.7	44.7	62.6	470	36.1	176
Age							
0-11 months	3.2	8.3	47.9	59.4	167	39.6	68
12-23 months	4.5	15.7	39.4	59.6	152	28.5	61
24-35 months	10.2	15.0	44.3	69.4	160	18.8	49
36-47 months	5.2	18.8	36.7	60.7	215	36.3	84
48-59 months	3.4	18.9	40.0	62.3	152	35.9	57
Mother's education							
None	(*)	(*)	(*)	(*)	34	(*)	16
Primary	2.2	13.4	42.6	58.2	514	31.7	215
Secondary+	9.2	19.8	41.1	70.1	298	37.3	89
Wealth index quintile							
Poorest	2.0	10.6	30.7	43.3	199	36.8	113
Second	1.0	9.6	45.4	56.1	184	31.8	81
Middle	9.5	16.0	48.0	73.6	162	(44.7)	43
Fourth	5.8	14.1	44.7	64.6	157	21.3	55
Richest	9.9	30.6	40.2	80.7	143	(24.1)	28
Ethnicity of household head							
Luhya	5.6	15.0	41.1	61.8	762	32.9	291
Other ethnic group	2.6	19.5	44.3	66.4	84	31.8	28
¹ MICS indicator 8.1 - Birth registration							
() Figures that are based on 25-49 unweighted cases							
(*) Figures that are based on fewer than 25 unweighted cases							

The lack of adequate knowledge of how to register a birth can present another major obstacle to the fulfilment of a child's right to identity. Data shows that only 33 percent of the mothers/caretakers of the children under-5 years of age whose births are not registered know how to register a child's birth.

Figure CP.1: Children under-5 whose births were registered, Bungoma County MICS, 2013/14



10.2 Child Labour

Children around the world are routinely engaged in paid and unpaid forms of work that are not harmful to them. However, they are classified as child labourers when they are either too young to work or are involved in hazardous activities that may compromise their physical, mental, social or educational development. Article 32 (1) of the Convention on the Rights of the Child states: "State Parties recognize the right of the child to be protected from economic exploitation and from performing any work that is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral or social development".

The Employment Act [Chapter 226] 2007, and the Children Act [Chapter 141] 2007, define a child in Kenya as a person below the age of 18 years. The Employment Act, Part VII provides for protection of children including protection from the worst forms of child labour. Section 56 of the Employment Act prohibits employment of a child below age 13 years in any form of undertaking. However it allows employment of children from age 13 to 16 years for light work, and defines those of age 16 to 18 as employable.^{103, 104}

In Bungoma County, the child labour module was administered for children age 5-17 years and includes questions on the type of work a child does and the number of hours he or she is engaged in it. Data were

¹⁰³ Employment Act [Chapter 226] 2007, 2012; Children Act [141] 2007, 2010.

¹⁰⁴ http://www.kenyalaw.org/kl/fileadmin/pdfdownloads/Acts/EmploymentAct_Cap226-No11of2007_01.pdf

collected on both economic activities (paid or unpaid work for someone who is not a member of the household, work for a family farm or business) and domestic work (household chores such as cooking, cleaning or caring for children, as well as collecting firewood or fetching water). The module also collected information on hazardous working conditions.^{105, 106}

Table CP.2 presents children's involvement in economic activities during the last week preceding the survey. The methodology of the MICS on Child Labour uses three age-specific thresholds for the number of hours a child can perform an economic activity without it being classified as in child labour. A child that performed economic activities during the last week for more than the age-specific number of hours is classified as in child labour:

- age 5-11: 1 hour or more
- age 12-14: 14 hours or more
- age 15-17: 43 hours or more

Forty-five percent of the 5-11 year olds are involved in economic activities for at least one hour (Table CP.2). About half of children age 12-14 years are involved in economic activity less than 14 hours and 22 percent for more than 14 hours. The percentage of the 15-17 year olds who are involved in economic activities for less than 43 hours is 64 percent while those involved in economic activity for 43 hours or more is five percent. Involvement in economic activities beyond the stipulated hours was comparable between boys and girls: 23 percent of male children age 12-14 years are engaged in economic activities for 14 hours or more and 22 percent of female children.

¹⁰⁵ UNICEF. 2012. *How Sensitive Are Estimates of Child Labour to Definitions?* MICS Methodological Paper No. 1. UNICEF.

¹⁰⁶ The Child Labour module and the Child Discipline module were administered using random selection of a single child in all households with one or more children age 1-17 (See Appendix H: Questionnaires). The Child Labour module was administered if the selected child was age 5-17 and the Child Discipline module if the child was age 1-14 years old. To account for the random selection, the household sample weight is multiplied by the total number of children age 1-17 in each household.

Table CP.2: Children's involvement in economic activities

Percentage of children by involvement in economic activities during the last week, according to age groups, Bungoma County MICS, 2013/14

	Percentage of children age 5-11 years involved in economic activity for at least one hour	Number of children age 5-11 years	Percentage of children age 12-14 years involved in:		Number of children age 12-14 years	Percentage of children age 15-17 years involved in:		Number of children age 15-17 years
			Economic activity less than 14 hours	Economic activity for 14 hours or more		Economic activity less than 43 hours	Economic activity for 43 hours or more	
Total	45.0	1,394	49.5	22.3	536	64.4	5.4	476
Sex								
Male	50.7	669	55.9	22.6	279	62.6	11.4	223
Female	39.8	725	42.6	21.9	257	66.0	0.0	253
Area								
Urban	39.9	629	46.9	16.2	215	63.8	0.0	185
Rural	49.2	765	51.3	26.4	321	64.8	8.8	290
School attendance								
Yes	47.2	1,295	49.7	22.5	530	64.0	6.1	417
No	15.9	99	37.6	(*)	7	67.5	0.0	58
Mother's education								
None	56.3	98	49.9	16.6	46	(*)	(*)	19
Primary	49.9	879	48.6	27.7	311	69.9	0.4	171
Secondary+	32.0	417	51.0	14.3	179	60.2	19.6	120
Cannot be determined ^a	na	na	na	na	na	61.8	0.7	164
Wealth index quintile								
Poorest	47.8	334	49.0	27.4	96	71.2	0.0	94
Second	46.6	277	57.7	25.9	131	58.3	0.0	79
Middle	57.6	284	50.8	19.6	113	74.2	20.1	117
Fourth	35.3	314	40.7	32.9	84	77.0	0.0	92
Richest	34.6	185	45.7	8.4	112	38.4	2.0	94
Ethnicity of household head								
Luhya	45.9	1,283	50.0	23.1	492	64.9	5.7	445
Other ethnic group	34.4	110	44.5	13.1	44	(57.2)	(0.0)	30
^a Children age 15 or higher at the time of the interview whose mothers were not living in the household								
na: not applicable								
() Figures that are based on 25-49 unweighted cases								
(*) Figures that are based on fewer than 25 unweighted cases								

Table CP.3 presents children's involvement in household chores. Like for economic activity above, the methodology also uses age-specific thresholds for the number of hours a child can perform household chores without it being classified as child labour. A child who performed household chores during the last week for more than the age-specific number of hours is classified as in child labour:

- age 5-11 and age 12-14: 28 hours or more
- age 15-17: 43 hours or more

Table CP.3 shows that three percent of children age 5-11 years and 10 percent of children age 12-14 years are involved in household chores for 28 hours or more while three percent of children age 15-17 years

are involved in household chores for 43 hours or more. Girls age 12-14 years are more likely to perform household chores than boys.

Table CP.3: Children's involvement in household chores										
Percentage of children by involvement in household chores during the last week, according to age groups, Bungoma County MICS, 2013/14										
	Percentage of children age 5-11 years involved in:			Percentage of children age 12-14 years involved in:			Percentage of children age 15-17 years involved in:			Number of children age 15-17 years
	Household chores less than 28 hours	Household chores for 28 hours or more	Number of children age 5-11 years	Household chores less than 28 hours	Household chores for 28 hours or more	Number of children age 12-14 years	Household chores less than 43 hours	Household chores for 43 hours or more		
Total	83.8	3.4	1,394	82.6	10.1	536	88.1	3.2	476	
Sex										
Male	82.2	3.6	669	78.4	9.1	279	87.9	1.4	223	
Female	85.3	3.2	725	87.1	11.2	257	88.2	4.8	253	
Area										
Urban	82.7	1.4	629	85.1	3.2	215	92.7	0.0	185	
Rural	84.7	5.1	765	80.9	14.7	321	85.2	5.3	290	
School attendance										
Yes	85.2	3.4	1,295	82.8	10.2	530	87.6	2.8	417	
No	66.2	3.9	99	(*)	(*)	7	91.3	6.2	58	
Mother's education										
None	72.7	4.2	98	100.0	0.0	46	(*)	(*)	19	
Primary	89.0	2.3	879	77.8	15.8	311	78.8	7.7	171	
Secondary+	75.6	5.5	417	86.5	2.8	179	95.5	1.8	120	
Cannot be determined ^a	na	na	na	na	na	na	90.9	0.0	164	
Wealth index quintile										
Poorest	82.6	2.9	334	87.6	9.5	96	92.6	5.0	94	
Second	86.8	2.1	277	87.0	13.0	131	71.3	4.6	79	
Middle	87.0	5.6	284	79.0	6.2	113	98.2	0.0	117	
Fourth	86.4	1.8	314	76.1	16.0	84	90.4	6.9	92	
Richest	72.3	5.7	185	81.6	6.7	112	82.9	0.8	94	
Ethnicity of household head										
Luhya	83.9	3.4	1,283	82.6	9.8	492	88.5	2.4	445	
Other ethnic group	82.8	4.3	110	82.2	13.1	44	82.1	15.6	30	
^a Children age 15 or higher at the time of the interview whose mothers were not living in the household na: not applicable										
(*) Figures that are based on fewer than 25 unweighted cases										

Table CP.4 combines the children working and performing household chores at or above and below the age-specific thresholds as detailed in the previous tables, as well as those children reported working under hazardous conditions, into the total child labour indicator. Total child labour for Bungoma County is 54 percent (58 percent for boys and 51 percent for girls). Child labour is higher in rural areas (60 percent) compared to urban areas (47 percent). Child labour is 54 percent for children in poorest households and 28 percent in the richest households.

Overall, the proportion of children working under hazardous conditions in Bungoma County is 44 percent (51 percent in rural areas and 36 percent in urban areas). The proportion of children working in hazardous conditions decreases with an increase in household wealth.

Table CP.4: Child labour

Percentage of children age 5-17 years by involvement in economic activities or household chores during the last week, percentage working under hazardous conditions during the last week, and percentage engaged in child labour during the last week, Bungoma County MICS, 2013/14

	Children involved in economic activities for a total number of hours during last week:		Children involved in household chores for a total number of hours during last week:		Children working under hazardous conditions	Total child labour ¹	Number of children age 5-17 years
	Below the age specific threshold	At or above the age specific threshold	Below the age specific threshold	At or above the age specific threshold			
Total	27.0	32.1	84.4	4.9	44.3	54.4	2,406
Sex							
Male	28.0	36.5	82.4	4.5	48.8	58.2	1,171
Female	26.0	27.9	86.3	5.2	40.1	50.8	1,235
Area							
Urban	23.0	27.7	85.0	1.5	35.9	46.5	1,030
Rural	30.0	35.4	83.9	7.4	50.7	60.4	1,376
Age							
5-11	5.6	45.0	83.8	3.4	35.5	50.5	1,394
12-14	49.5	22.3	82.6	10.1	55.8	60.1	536
15-17	64.4	5.4	88.1	3.2	57.2	59.6	476
School attendance							
Yes	26.4	33.7	85.1	4.9	44.9	55.1	2,242
No	35.6	9.6	75.1	4.6	36.3	46.0	164
Mother's education							
None	22.1	38.5	83.6	2.5	41.9	53.1	163
Primary	23.7	38.6	85.1	6.1	46.8	58.9	1,362
Secondary+	26.6	25.5	81.6	4.2	37.6	45.9	716
Cannot be determined ^a	61.8	0.7	90.9	0.0	56.4	57.2	164
Wealth index quintile							
Poorest	22.8	35.5	85.3	4.5	46.5	54.4	524
Second	32.4	33.5	84.4	5.4	52.3	61.7	488
Middle	31.3	40.7	87.8	4.4	55.9	71.0	514
Fourth	24.4	28.3	85.4	5.2	39.0	50.9	489
Richest	23.5	19.3	77.5	4.8	23.1	28.2	392
Ethnicity of household head							
Luhya	27.4	32.8	84.5	4.6	45.1	55.5	2,221
Other ethnic group	22.0	23.7	82.5	8.2	35.6	41.5	183
¹ MICS indicator 8.2 - Child labour							
^a Children age 15 or higher at the time of the interview whose mothers were not living in the household							

10.3 Child Discipline

Teaching children self-control and acceptable behaviour is an integral part of child discipline in all cultures. Positive parenting practices involve providing guidance on how to handle emotions or conflicts in manners that encourage judgment and responsibility and preserve children's self-esteem, physical and psychological integrity and dignity. Too often, however, children are raised through the use of punitive methods that rely on the use of physical force or verbal intimidation to obtain desired behaviours. Studies¹⁰⁷ have found that exposing children to violent discipline have harmful consequences, which range from immediate impacts to long-term harm that children carry forward into adult life. Violence hampers children's development, learning abilities and school performance; it inhibits positive relationships, provokes low self-esteem, emotional distress and depression; and, at times, it leads to risk taking and self-harm.

In the Bungoma County MICS, respondents to the household questionnaire were asked a series of questions on the methods adults in the household use to discipline a selected child during the past month.¹⁰⁶ The disciplinary methods assessed ranged from non-violent approaches to psychological aggression, and moderate to severe forms of physical punishment.

Non-violent discipline: Took away privileges; explained wrong behaviour; gave the child something else to do.

Psychological aggression: Shouted, yelled, screamed; called the child 'dumb, lazy or any other name'.

Physical punishment: Shook the child; spanked, hit, slapped on bottom with bare hand; hit with belt, hairbrush, stick or other hard object; hit/slapped on the face, head or ears; hit/slapped on hand, arm or leg; beat up, hit over and over as hard as one could.

Severe punishment: hit/slapped on the face, head or ears; hit/slapped on hand, arm or leg; beat up, hit over and over as hard as one could.

Any violent discipline method: Shook the child; shouted, yelled, screamed; spanked, hit, slapped on bottom with bare hand; hit with belt, hairbrush, stick or other hard object; called the child 'dumb, lazy or any other name'; hit/slapped on the face, head or ears; hit/slapped on hand, arm or leg; beat up, hit over and over as hard as one could.

¹⁰⁷Straus, MA and Paschall MJ.2009. *Corporal Punishment by Mothers and Development of Children's Cognitive Ability: A longitudinal study of two nationally representative age cohorts.* Journal of Aggression, Maltreatment & Trauma18(5): 459-83.
Erickson, MF and Egeland, B. 1987. *A Developmental View of the Psychological Consequences of Maltreatment.* School Psychology Review16: 156-68.

Schneider, MW et al. 2005. *Do Allegations of Emotional Maltreatment Predict Developmental Outcomes Beyond that of Other Forms of Maltreatment?.* Child Abuse & Neglect29(5): 513-32.

In Bungoma County MICS, Table CP.5 shows that 82 percent of children age 1-14 years are subjected to at least one form of psychological aggression or physical punishment by household members. For the most part, households employ a combination of violent disciplinary practices, reflecting caregivers' motivation to control children's behaviour by any means possible. While 60 percent of children experience psychological aggression, about 78 percent experience some form of physical punishment. The most severe forms of physical punishment (hitting the child on the head, ears or face or hitting the child hard and repeatedly) are overall less common: 14 percent of children are subjected to severe punishment.

Girls are subjected to any form of violent discipline slightly more than boys (84 percent compared to 79 percent). In rural areas, 84 percent of children age 1-14 years are subjected to at least one form of psychological or physical punishment by household members, compared to 78 percent in urban areas. The proportion of children disciplined increases with age of child. Figure CP.2 presents a summary of the main methods of child discipline.

Table CP.5: Child discipline

Percentage of children age 1-14 years by child disciplining methods experienced during the last one month, Bungoma County MICS, 2013/14

	Percentage of children age 1-14 years who experienced:					Number of children age 1-14 years
	Only non-violent discipline	Psychological aggression	Physical punishment		Any violent discipline method ¹	
			Any	Severe		
Total	10.6	59.5	77.9	13.5	81.6	2,572
Sex						
Male	11.7	61.2	77.1	14.8	79.4	1,229
Female	9.7	58.0	78.6	12.4	83.6	1,344
Area						
Urban	12.6	51.7	72.7	6.1	78.1	1,137
Rural	9.1	65.7	82.0	19.4	84.4	1,435
Age						
1-2	10.3	36.5	65.6	7.3	67.6	300
3-4	6.9	60.8	77.6	15.0	80.4	342
5-9	10.5	65.6	82.9	12.0	84.4	1,072
10-14	12.5	59.6	76.1	17.1	83.5	859
Education of household head						
None	13.2	67.9	68.2	22.2	79.2	162
Primary	8.7	60.9	80.8	12.7	82.8	1,325
Secondary+	13.1	55.3	75.0	11.3	79.9	1,053
Wealth index quintile						
Poorest	9.3	62.3	80.7	10.9	85.5	565
Second	12.1	60.6	76.6	14.6	80.1	546
Middle	8.0	57.5	80.5	9.5	82.5	520
Fourth	9.2	64.9	81.2	15.8	84.4	522
Richest	15.7	50.3	68.6	17.7	73.7	420
Ethnicity of household head						
Luhya	10.8	60.8	78.1	13.2	81.7	2,343
Other ethnic group	9.5	46.5	75.4	16.5	80.8	228
¹ MICS indicator 8.3 - Violent discipline						
() Figures that are based on 25-49 unweighted cases						

Figure CP.2: Child disciplining methods, children age 1-14 years, Bungoma County MICS, 2013/14

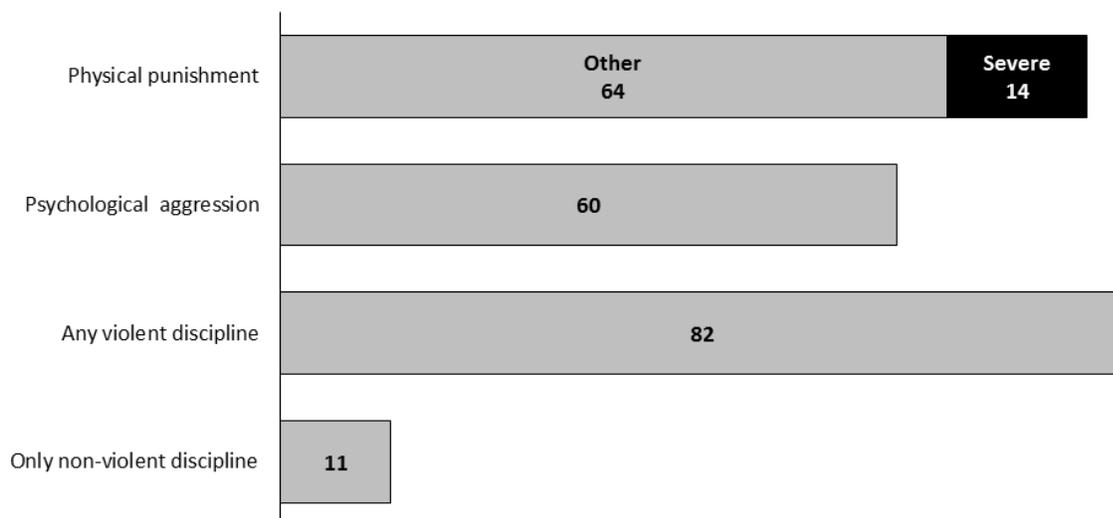


Table CP.6 shows that 65 percent of respondents to the household questionnaire believe that physical punishment is a necessary part of child-rearing. There are some differentials across background variables of respondents. Overall, respondents with low educational attainment, those residing in rural areas and those from poorer households are more likely to find physical punishment as necessary in disciplining children.

Table CP.6: Attitudes toward physical punishment		
Percentage of respondents to the child discipline module who believe that physical punishment is needed to bring up, raise, or educate a child properly, Bungoma County MICS, 2013/14		
	Respondent believes that a child needs to be physically punished	Number of respondents to the child discipline module
Total	65.0	846
Sex		
Male	67.8	161
Female	64.4	685
Area		
Urban	57.7	394
Rural	71.5	452
Age		
<25	60.8	99
25-39	66.0	422
40-59	62.4	233
60+	71.7	92
Respondent's relationship to selected child		
Mother	65.0	506
Father	65.9	122
Other	64.6	218
Respondent's education		
None	67.7	63
Primary	69.2	469
Secondary+	58.2	314
Wealth index quintile		
Poorest	70.9	176
Second	73.5	174
Middle	63.1	152
Fourth	62.0	172
Richest	55.1	172
Ethnicity of household head		
Luhya	64.9	760
Other ethnic group	66.8	86

10.4 Early Marriage and Polygyny

Marriage¹⁰⁸ before the age of 18 is a reality for many young girls. 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

¹⁰⁸ All references to marriage in this chapter include marital union as well.

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.¹⁰⁹ The right to 'free and full' consent to a marriage is recognized in the Universal Declaration of Human Rights - with the recognition that consent cannot be 'free and full' when one of the parties involved is not sufficiently mature to make an informed decision about a life partner. Closely related to the issue of child marriage is the age at which girls become sexually active. Women who are married before the age of 18 tend to have more children than those who marry later in life. Pregnancy related deaths are known to be a leading cause of mortality for both married and unmarried girls between the ages of 15 and 19, particularly among the youngest of this cohort. There is evidence to suggest that girls who marry at young ages are more likely to marry older men which puts them at increased risk of HIV infection. The demand for such a young wife to reproduce, and the power imbalance resulting from the age differential, lead to very low condom use among such couples.¹¹⁰ In Bungoma County MICS, the percentages of women married before ages 15 and 18 years are provided in Table CP.7. Among women age 15-49 years, five percent are married before age 15, and among women age 20-49 years, six percent are married before age 15 while 30 percent are married before age 18.

Eight percent of young women age 15-19 years are currently married. The percentage of women in a polygynous union is also provided in Table CP.7. Among all women age 15-49 years who were in union, 15 percent are in polygynous unions.

¹⁰⁹ Bajracharya, A ND Amin, S. 2010. *Poverty, marriage timing, and transitions to adulthood in Nepal: A longitudinal analysis using the Nepal living standards survey*. Poverty, Gender, and Youth Working Paper No. 19. Population Council.

Godha, D et al. 2011. *The influence of child marriage on fertility, fertility-control, and maternal health care utilization*. MEASURE/Evaluation PRH Project Working paper 11-124.

¹¹⁰ Clark, S et al. 2006. *Protecting young women from HIV/AIDS: the case against child and adolescent marriage*. International Family Planning Perspectives 32(2): 79-88.

Raj, A et al. 2009. *Prevalence of child marriage and its effect on fertility and fertility-control outcomes of young women in India: a cross-sectional, observational study*. The Lancet 373 (9678): 1883-9.

Table CP.7: Early marriage and polygyny (women)

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 who are in a polygynous marriage or union, Bungoma County MICS, 2013/14

	Women age 15-49 years		Women age 20-49 years			Women age 15-19 years		Women age 15-49 years	
	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 currently married/in union ³	Number of women age 15-19 years	Percentage in polygynous marriage/union ⁴	Number of women age 15-49 years currently married/in union
Total	5.2	1,213	6.1	30.1	917	8.1	296	14.6	694
Area									
Urban	4.5	563	5.5	27.7	434	6.6	129	13.4	319
Rural	5.8	650	6.8	32.3	483	9.2	167	15.5	376
Age									
15-19	2.3	296	na	na	na	8.1	296	(*)	14
20-24	4.8	191	4.8	26.4	191	na	na	5.5	100
25-29	5.5	222	5.5	34.2	222	na	na	10.2	179
30-34	4.5	161	4.5	31.6	161	na	na	4.6	121
35-39	7.4	142	7.4	23.8	142	na	na	17.1	120
40-44	7.2	110	7.2	24.9	110	na	na	22.6	87
45-49	10.2	92	10.2	41.4	92	na	na	43.1	74
Education									
None	(8.4)	28	(9.2)	(27.3)	26	(*)	2	(*)	18
Primary	7.4	662	9.1	45.9	468	9.1	195	18.8	376
Secondary+	2.2	522	2.7	12.8	424	6.2	99	9.2	301
Wealth index quintile									
Poorest	5.8	197	7.1	37.1	161	8.1	36	19.1	122
Second	7.3	227	6.9	32.1	170	12.0	57	22.2	138
Middle	7.5	240	9.6	36.6	169	4.8	70	12.0	126
Fourth	4.1	263	5.6	29.5	195	7.4	68	12.5	149
Richest	2.1	285	2.7	19.0	221	9.0	65	8.3	159
Ethnicity of household head									
Luhya	5.5	1,086	6.5	30.8	814	8.1	271	14.7	618
Other ethnic group	2.8	127	3.0	24.4	103	8.0	24	13.5	76

¹ MICS indicator 8.4 - Marriage before age 15

² MICS indicator 8.5 - Marriage before age 18

³ MICS indicator 8.6 - Young women age 15-19 years currently married or in union

⁴ MICS indicator 8.7 - Polygyny

na: not applicable

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

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

Table CP.8 presents the proportion of women who were first married or entered into a marital union before age 15 years and 18 years by area and age group. Examining the percentages married before age 15 and 18 by different age groups allows for trends to be observed in early marriage over time. Data show

that the prevalence of the proportion of women married or in union by age 15 years and 18 years has gradually declined over time. The proportion of women age 15-49 years who had married before age 15 years is five percent in urban areas, six percent in rural areas, and overall five percent for all women. The proportion of women age 15-19 years who had married before age 15 years is two percent. Comparing with the same age group 10 years ago (those currently 25-29 years), six percent had married before age 15 years. Comparing with the same age group thirty years ago (those currently age 45-49 years), 10 percent had married before age 15 years. This suggests that generally, child marriage before age 15 years has been declining over the last 30 years. A similar pattern is observed for marriage before age 15 years by urban/rural areas and for marriage before age 18 years (with 26 percent of women currently 20-24 years old marrying before age 18 years, compared to 41 percent of women currently 45-49 years of age). Figure CP.3 presents a summary of the main characteristics of early marriage.

Table CP.8: Trends in early marriage (women)

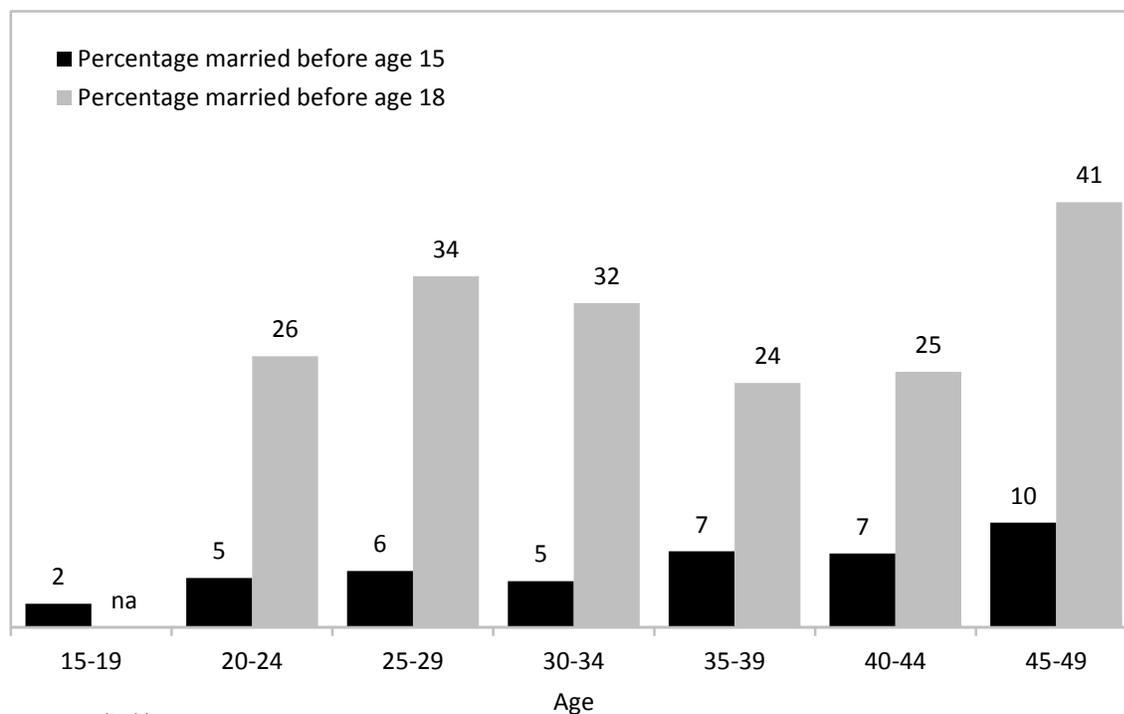
Percentage of women who were first married or entered into a marital union before age 15 and 18, by area and age groups, Bungoma County MICS, 2013/14

	Urban				Rural				All			
	Percentage of women married before age 15	Number of women age 15-49 years	Percentage of women married before age 18	Number of women age 20-49 years	Percentage of women married before age 15	Number of women age 15-49 years	Percentage of women married before age 18	Number of women age 20-49 years	Percentage of women married before age 15	Number of women age 15-49 years	Percentage of women married before age 18	Number of women age 20-49 years
Total	4.5	563	27.7	434	5.8	650	32.3	483	5.2	1,213	30.1	917
Age												
15-19	1.3	129	na	na	3.0	167	na	na	2.3	296	na	na
20-24	5.2	99	25.8	99	4.3	92	27.0	92	4.8	191	26.4	191
25-29	2.2	106	24.5	106	8.5	116	42.9	116	5.5	222	34.2	222
30-34	1.5	69	28.1	69	6.8	92	34.2	92	4.5	161	31.6	161
35-39	6.3	57	20.0	57	8.1	85	26.3	85	7.4	142	23.8	142
40-44	9.9	56	30.7	56	4.4	53	18.7	53	7.2	110	24.9	110
45-49	(12.7)	48	(43.3)	48	7.4	44	39.3	44	10.2	92	41.4	92

na: not applicable

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

Figure CP.3: Early marriage among women, Bungoma County MICS, 2013/14



na: not applicable

Another important component of child marriage is the spousal age difference since the age difference between husband and wife is likely to have implications for power dynamics within the household. Table CP.9 shows that the proportion of women age 20-24 years currently married or in union with a husband or partner 10 or more years older than them is 23 percent.¹¹¹

¹¹¹ The cases for women age 15-19 years currently married/in union were too few to be analysed by the age of the husband/partner. As such ¹ MICS indicator 8.8a - Spousal age difference (among women age 15-19) is not shown in Table CP.9

Table CP.9: Spousal age difference							
Percent distribution of women currently married/in union age 20-24 years according to the age difference with their husband or partner, Bungoma County MICS, 2013/14							
	Percentage of currently married/in union women age 20-24 years whose husband or partner is:					Total	Number of women age 20-24 years currently married/in union
	0-4 years older	5-9 years older	10+ years older ²	Husband/Partner's age unknown			
Total	44.7	31.5	22.8	1.0	100.0	83	
Area							
Urban	35.0	34.9	28.5	1.6	100.0	50	
Rural	(59.4)	(26.4)	(14.2)	(0.0)	100.0	33	
² MICS indicator 8.8b - Spousal age difference (among women age 20-24)							
na: not applicable							
() Figures that are based on 25-49 unweighted cases							

10.5 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 four 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 which subjects girls and women to health risks and has life-threatening consequences. Although no international human rights instruments specifically addressed the practice, Article 25 of the Universal Declaration of Human Rights states that “everyone has the right to a standard of living adequate for health and well-being” and has been used to argue that FGM/C violates the right to health and bodily integrity. Furthermore, it could be argued that girls, i.e. children, cannot be said to give informed consent to such a potentially damaging practice as FGM/C.

In Bungoma County MICS, Table CP.10 presents the prevalence of FGM/C among women age 15-49 years and the type of procedure performed. Two percent of women had some form of female genital mutilation. Three percent of women with primary education and one percent for women with secondary/higher education experience some form of genital mutilation. The practice is at two percent for both urban and rural areas. There is a general upward trend of FGM with age.

Table CP.10: Female genital mutilation/cutting (FGM/C) among women

Percentage of women age 15-49 years by FGM/C status and percent distribution of women who had FGM/C by type of FGM/C, Bungoma County MICS, 2013/14

	Percentage of women who had any form of FGM/C ¹	Number of women age 15-49 years
Total	2.1	1,213
Area		
Urban	2.0	563
Rural	2.1	650
Age		
15-19	0.3	296
20-24	0.5	191
25-29	1.6	222
30-34	2.6	161
35-39	2.6	142
40-44	8.5	110
45-49	2.8	92
Education		
None	(0.0)	28
Primary	2.8	662
Secondary+	1.2	522
Wealth index quintile		
Poorest	2.8	197
Second	3.7	227
Middle	1.0	240
Fourth	1.7	263
Richest	1.6	285
Ethnicity of household head		
Luhya	1.2	1,086
Other ethnic group	9.4	127
¹ MICS indicator 8.10 - Prevalence of FGM/C among women		
() Figures that are based on 25-49 unweighted cases		

The Bungoma MICS assessed the prevalence and extent of FGM/C performed on all daughters, age 0-14 years, of the respondents. It is important to remember that prevalence data for girls age 0-14 years reflect their current – not final – FGM/C status, since many of them may not have reached the customary age for cutting at the time of the survey. Those reported as being uncut are still at risk of undergoing the procedure. However, none of the daughters age 0-14 years had undergone FGM/C, as such the corresponding table is not produced in this report.

Results on perceptions of women age 15-49 years towards FGM/C are presented in Table CP.11. As to whether the practice should be continued or discontinued, two percent of women think it should be continued while 91 percent believe it should be discontinued.

Table CP.11: 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, Bungoma County MICS, 2013/14

	Percentage of women who have heard of FGM/C	Number of women age 15-49 years	Percent distribution of women who believe the practice of FGM/C should be:					Total	Number of women age 15-49 years who have heard of FGM/C
			Continued ¹	Discontinued	Depends	DK/Missing			
Total	91.2	1213	1.7	91.2	5.0	2.1	100.0	1,106	
Area									
Urban	92.1	563	1.3	94.8	2.8	1.1	100.0	518	
Rural	90.4	650	2.1	88.0	6.9	3.0	100.0	587	
Age									
15-19	86.0	296	1.4	95.5	1.6	1.5	100.0	254	
20-24	92.9	191	1.9	91.7	4.2	2.2	100.0	177	
25-29	89.6	222	1.2	92.2	5.1	1.4	100.0	199	
30-34	95.6	161	0.9	90.4	5.9	2.7	100.0	154	
35-39	92.6	142	2.5	87.6	8.5	1.3	100.0	131	
40-44	91.4	110	4.6	82.8	7.5	5.1	100.0	100	
45-49	97.7	92	0.0	91.5	6.2	2.3	100.0	90	
Education									
None	(86.7)	28	(*)	(*)	(*)	(*)	100.0	25	
Primary	87.2	662	2.0	89.9	5.4	2.8	100.0	578	
Secondary+	96.4	522	1.3	93.3	3.9	1.5	100.0	503	
FGM/C experience									
No FGM/C	91.0	1188	1.3	91.6	5.0	2.0	100.0	1,081	
Had FGM/C	(100.0)	25	(17.6)	(72.1)	(2.4)	(8.0)	100.0	25	
Wealth index quintile									
Poorest	94.1	197	1.9	93.5	4.2	0.4	100.0	186	
Second	88.5	227	3.6	85.3	8.0	3.1	100.0	201	
Middle	88.2	240	0.7	92.7	4.2	2.3	100.0	211	
Fourth	89.4	263	2.4	87.6	7.2	2.8	100.0	235	
Richest	95.4	285	0.3	95.8	2.0	1.8	100.0	272	
Ethnicity of household head									
Luhya	90.6	1086	1.7	90.8	5.1	2.4	100.0	984	
Other ethnic group	95.8	127	1.4	94.5	3.8	0.3	100.0	122	

¹ MICS indicator 8.9 - Approval for FGM/C

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

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

10.6 Attitudes toward Domestic Violence

MICS assessed the attitudes of women age 15-49 years towards wife/partner beating by asking the respondents whether husbands/partners were justified to hit or beat their wives/partners in a variety of

situations. The purpose of these questions was to capture the social justification of violence (in contexts where women have a lower status in society) as a disciplinary action when a woman does not comply with certain expected gender roles.

Table CP.12: Attitudes toward domestic violence (women)							
Percentage of women age 15-49 years who believe a husband is justified in beating his wife in various circumstances, Bungoma County MICS, 2013/14							
	Percentage of women age 15-49 years who believe a husband is justified in beating his wife:						Number of women age 15-49 years
	If she goes out without telling him	If she neglects the children	If she argues with him	If she refuses sex with him	If she burns the food	For any of these five reasons ¹	
Total	27.1	34.5	22.5	20.8	14.3	42.3	1,213
Area							
Urban	24.2	33.3	20.7	17.8	11.0	41.1	563
Rural	29.6	35.5	24.1	23.4	17.2	43.3	650
Age							
15-19	20.5	29.4	18.1	9.9	10.5	33.8	296
20-24	30.9	41.3	22.8	26.5	14.1	47.0	191
25-29	28.9	39.1	30.1	29.2	20.8	50.5	222
30-34	37.2	35.8	19.9	19.8	18.8	45.7	161
35-39	24.8	33.5	20.8	22.3	8.4	42.8	142
40-44	29.6	33.6	28.3	23.8	19.4	41.1	110
45-49	19.0	26.0	17.7	19.2	7.0	34.7	92
Marital/Union status							
Currently married/in union	29.5	35.0	23.9	24.9	14.7	44.8	694
Formerly married/in union	35.0	41.6	29.5	21.8	26.6	47.4	114
Never married/in union	20.8	31.6	18.0	13.4	10.3	36.5	404
Education							
None	(27.7)	(36.5)	(34.4)	(21.0)	(25.5)	(42.3)	28
Primary	29.5	34.2	24.0	23.8	16.9	41.4	662
Secondary+	24.1	34.8	19.9	17.0	10.5	43.4	522
Wealth index quintile							
Poorest	27.3	34.4	25.1	26.0	15.8	42.9	197
Second	33.7	36.3	25.4	22.7	18.8	42.4	227
Middle	33.7	39.8	28.8	22.1	11.6	47.5	240
Fourth	27.6	33.6	23.1	21.5	15.4	43.8	263
Richest	15.7	29.5	12.5	13.9	11.0	36.1	285
Ethnicity of household head							
Luhya	27.9	35.0	23.1	21.1	14.4	42.9	1,086
Other ethnic group	20.6	30.1	17.4	18.1	13.7	37.0	127
¹ MICS indicator 8.12 - Attitudes towards domestic violence							
() Figures that are based on 25-49 unweighted cases							

In Bungoma County MICS, the responses to these questions can be found in Table CP.12. Overall, 42 percent of women in Bungoma County MICS feel that a husband/partner is justified in hitting or beating his wife in at least one of the five situations. Women who justify a husband's violence, in most cases agree and justify violence in instances when a wife neglects the children (35 percent), or if she demonstrates her autonomy, exemplified by going out without telling her husband (27 percent) or arguing with him (23 percent). Justification in any of the five situations is more prevalent by household wealth especially for the categories "going out without telling him", "arguing with him", and "refusing to have sex".

10.7 Children's Living Arrangements

The CRC recognizes that "the child, for the full and harmonious development of his or her personality, should grow up in a family environment, in an atmosphere of happiness, love and understanding". Millions of children around the world grow up with without the care of their parents for several reasons, including due to the premature death of the parents or their migration for work. In most cases, these children are cared for by members of their extended families, while in others, children may be living in households other than their own, as live-in domestic workers for instance. Understanding the children's living arrangements, including the composition of the households where they live and the relationships with their primary caregivers, is key to design targeted interventions aimed at promoting child's care and wellbeing.

In Bungoma County MICS, information on the living arrangements and orphanhood status of children under age 18 is presented in Table CP.13. About 61 percent of children age 0-17 years in Bungoma County MICS live with both their parents. Seventeen percent of children live with neither of their biological parents. Older children are more likely to live with neither biological parent than younger children. Overall, about 10 percent of the children age 0-17 years have lost one or both parents.

Table CP.13: Children's living arrangements and orphanhood

Percent distribution of children age 0-17 years according to living arrangements, percentage of children age 0-17 years not living with a biological parent and percentage of children who have one or both parents dead, Bungoma County MICS, 2013/14

	Living with both parents	Living with neither biological parent				Living with mother only		Living with father only		Missing information on father/mother	Total	Living with neither biological parent ¹	One or both parents dead ²	Number of children age 0-17 years
		Only father alive	Only mother alive	Both alive	Both dead	Father alive	Father dead	Mother alive	Mother dead					
Total	60.7	0.0	0.0	11.9	0.0	14.4	0.0	2.3	0.0	10.8	100.0	16.5	9.6	3,303
Sex														
Male	62.0	0.0	0.0	11.2	0.0	13.4	0.0	2.0	0.0	11.4	100.0	16.1	10.1	1,578
Female	59.5	0.0	0.0	12.5	0.0	15.2	0.0	2.5	0.0	10.3	100.0	16.8	9.2	1,725
Area														
Urban	56.7	0.0	0.0	13.1	0.0	14.2	0.0	2.5	0.0	13.4	100.0	18.3	11.8	1,423
Rural	63.7	0.0	0.0	10.9	0.0	14.5	0.0	2.1	0.0	8.9	100.0	15.1	8.0	1,880
Age														
0-4	65.8	0.0	0.0	7.1	0.0	20.9	0.0	1.5	0.0	4.7	100.0	8.4	3.9	898
5-9	62.2	0.0	0.0	12.7	0.0	13.5	0.0	1.7	0.0	9.7	100.0	17.2	8.7	1,074
10-14	55.6	0.0	0.0	14.3	0.0	11.8	0.0	4.0	0.0	14.3	100.0	20.1	13.3	890
15-17	56.7	0.0	0.0	14.5	0.0	8.2	0.0	1.5	0.0	19.1	100.0	23.6	16.4	440
Wealth index quintile														
Poorest	60.6	0.0	0.0	13.8	0.0	11.3	0.0	0.9	0.0	13.4	100.0	19.2	13.4	719
Second	61.4	0.0	0.0	11.6	0.0	12.2	0.0	3.3	0.0	11.5	100.0	16.5	10.5	676
Middle	58.0	0.0	0.0	12.8	0.0	16.8	0.0	2.2	0.0	10.2	100.0	16.5	8.4	685
Fourth	63.6	0.0	0.0	8.9	0.0	15.3	0.0	3.3	0.0	8.9	100.0	13.0	6.8	659
Richest	59.7	0.0	0.0	12.0	0.0	16.9	0.0	1.6	0.0	9.9	100.0	16.9	8.6	563
Ethnicity of household head														
Luhya	60.8	0.0	0.0	12.2	0.0	13.6	0.0	2.2	0.0	11.2	100.0	16.9	10.1	3,013
Other ethnic group	59.3	0.0	0.0	7.9	0.0	22.3	0.0	3.0	0.0	7.5	100.0	11.3	4.9	288
¹ MICS indicator 8.13 - Children's living arrangements														
² MICS indicator 8.14 - Prevalence of children with one or both parents dead														

The Bungoma County MICS included a simple measure of one particular aspect of migration related to what is termed children left behind, i.e. for whom one or both parents have moved abroad. While the amount of literature is growing, the long-term effects of the benefits of remittances versus the potential adverse psycho-social effects are not yet conclusive, as there is somewhat conflicting evidence available as to the effects on children.

The results of the Bungoma County MICS presented in Table CP.14 will greatly help fill the data gap on this topic of migration. Less than one percent of children age 0-17 have one or both parents living abroad. There are no differences by sex of child, age of child or by urban/rural areas.

Table CP.14: Children with parents living abroad

Percent distribution of children age 0-17 years by residence of parents in another country, Bungoma County MICS, 2013/14							
	Percent distribution of children age 0-17 years:					Percentage of children age 0-17 years with at least one parent living abroad ¹	Number of children age 0-17 years
	With at least one parent living abroad			With neither parent living abroad	Total		
	Only mother abroad	Only father abroad	Both mother and father abroad				
Total	0.0	0.1	0.0	99.8	100.0	0.2	3,303
Sex							
Male	0.0	0.1	0.0	99.9	100.0	0.1	1,578
Female	0.1	0.1	0.0	99.8	100.0	0.2	1,725
Area							
Urban	0.1	0.2	0.0	99.7	100.0	0.3	1,423
Rural	0.0	0.0	0.1	99.9	100.0	0.1	1,880
Age group							
0-4	0.0	0.2	0.0	99.8	100.0	0.2	898
5-9	0.0	0.1	0.0	99.9	100.0	0.1	1,074
10-14	0.1	0.0	0.1	99.7	100.0	0.3	890
15-17	0.0	0.0	0.0	100.0	100.0	0.0	440
Wealth index quintile							
Poorest	0.2	0.0	0.0	99.8	100.0	0.2	719
Second	0.0	0.0	0.2	99.8	100.0	0.2	676
Middle	0.0	0.0	0.0	100.0	100.0	0.0	685
Fourth	0.0	0.0	0.0	100.0	100.0	0.0	659
Richest	0.0	0.6	0.0	99.4	100.0	0.6	563
Ethnicity of household head							
Luhya	0.0	0.1	0.0	99.8	100.0	0.2	3,013
Other ethnic group	0.0	0.2	0.0	99.8	100.0	0.2	288

¹ MICS indicator 8.15 - Children with at least one parent living abroad

11. HIV/AIDS and Sexual Behaviour

HIV prevalence in Kenya has declined and stabilised over the years. A trend analysis starting from 1990 shows that prevalence in the general population reached a peak of 10.5 percent in 1995-96, after which it declined by about 40 percent to reach approximately 6.0 percent in 2013.¹¹² The decline can partly be attributed to high AIDS related mortality. The prevalence has remained relatively stable since 2003 and is attributed to the rapid scale up of anti-retroviral therapy (ART) and reduction in the number of new infections that occurred during this period.

HIV and AIDS programmes in the country are guided by policies and strategies that include the Kenya National HIV/AIDS Strategic Plan; Condom Policy and Strategy, 2001; HIV and AIDS Prevention and Control ACT, 2006; HIV and AIDS policy at the workplace, 2007; Greater Involvement of People Living with HIV and AIDS (GIPA) Guidelines, 2007; Male Circumcision Policy, 2008; Reproductive Health Communication Strategy Implementation Guide for Family Planning, Adolescent and Youth Sexuality and Reproductive Health Rights, and Maternal, Neonatal, and Child Health 2010-2012; Education Sector Policy on HIV and AIDS, 2013 and many more. The current Kenya AIDS Strategic Framework - KASF 2014/15-2018/19 addresses the drivers of the HIV epidemic and builds on achievements of the previous country strategic plans to achieve its goals of contributing to the country's Vision 2030 through universal access to comprehensive HIV prevention, treatment and care.¹¹³

11.1 Knowledge about HIV Transmission and Misconceptions about HIV

One of the most important pre-requisites for reducing the rate of HIV infection is accurate knowledge of how HIV is transmitted and strategies for preventing transmission. Correct information is the first step towards raising awareness. Misconceptions about HIV are common and can confuse adolescents and young people and hinder prevention efforts.

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 Millennium Development Goal (MDG) of reducing HIV infections by half include improving the level of knowledge of HIV and its prevention, and changing behaviours to prevent further spread of the disease. HIV module(s) were administered to women and men 15-49 years of age. Please note that the questions in this module often refer to "the AIDS virus". This terminology is used strictly as a method of data collection to aid respondents, preferred over the correct terminology of "HIV" that is used here in reporting the results, where appropriate.

One indicator which is both an MDG and the Global AIDS Response Progress Reporting (GARPR; formerly UNGASS) indicator is the percentage of young people who have comprehensive and correct knowledge of HIV prevention and transmission. This is defined as 1) knowing that consistent use of a condom during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting HIV, 2) knowing that a healthy-looking person can have HIV, and 3) rejecting the two most common local misconceptions about transmission/prevention of HIV. In the Bungoma County MICS all women who have heard of AIDS were asked questions on all three components and the results are detailed in Table HA.1.

¹¹²Government of Kenya 2014. Kenya AIDS Response Progress Report 2014 – Progress Towards Zero

¹¹³ http://www.nacc.or.ke/index.php?option=com_content&view=article&id=189&Itemid=130

Almost all women age 15-49 years (99 percent) have heard of AIDS. However, the percentage of those who know the two main ways of preventing HIV transmission – having only one faithful uninfected partner and using a condom every time- is 71 percent, with about 82 percent knowing of having one faithful uninfected sex partner and 81 percent knowing of using a condom every time.

People who have comprehensive knowledge about HIV prevention include those who know of the two main ways of HIV prevention (having only one faithful uninfected partner and using a condom every time), who know that a healthy looking person can be HIV-positive, and those who reject the two most common misconceptions. Comprehensive knowledge of HIV prevention methods and transmission is fairly low although there are differences by area, age and by woman's education. Overall, 49 percent of women have comprehensive knowledge, which is higher in urban than rural areas (54 percent and 44 percent, respectively). Comprehensive knowledge ranges from 42 percent, in the 15-19 year age group, to 56 percent in the 20-24 year group. Comprehensive knowledge is higher among women age 15-49 years with secondary or higher education (59 percent) compared to those with only primary education (42 percent), and for those living in the wealthiest households (61 percent) compared to those in the poorest (43 percent) (Table HA.1).

Table HA.1: Knowledge about HIV transmission, misconceptions about HIV, and comprehensive knowledge about HIV transmission (women)

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 be HIV-positive, percentage who reject common misconceptions, and percentage who have comprehensive knowledge about HIV transmission, Bungoma County MICS, 2013/14

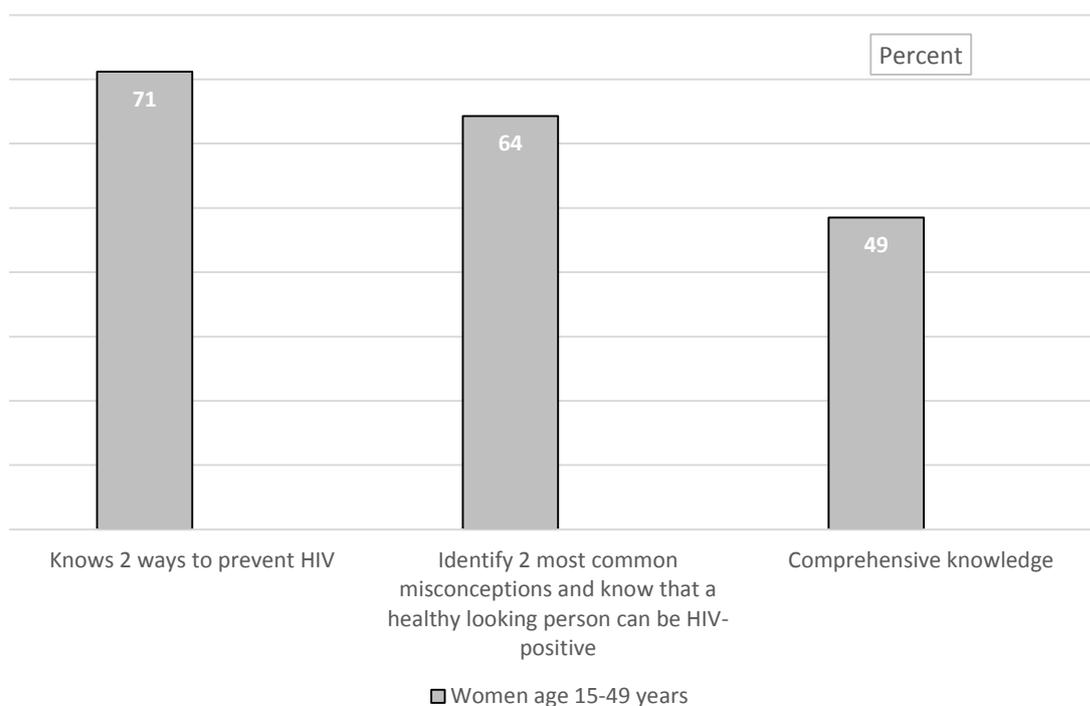
	Percentage who have heard of AIDS	Percentage who know transmission can be prevented by:			Percentage who know that a healthy looking person can be HIV-positive	Percentage who know that HIV cannot be transmitted by:			Percentage who reject the two most common misconceptions and know that a healthy looking person can be HIV-positive	Percentage with comprehensive knowledge ¹	Number of women age 15-49 years
		Having only one faithful uninfected sex partner	Using a condom every time	Both		Mosquito bites	Supernatural means	Sharing food with someone with HIV			
Total	99.2	81.6	81.2	71.2	87.0	82.3	92.5	84.1	64.3	48.5	1,213
Area											
Urban	99.4	85.8	86.5	77.5	89.1	86.2	93.6	83.4	65.8	53.7	563
Rural	99.0	77.9	76.6	65.7	85.1	78.9	91.6	84.8	63.0	44.0	650
Age											
15-24 ¹	99.2	76.1	75.3	63.6	84.0	85.6	92.5	87.8	66.8	47.5	487
15-19	98.6	71.6	70.5	57.2	80.0	86.9	92.4	87.1	64.5	41.9	296
20-24	100.0	83.1	82.8	73.6	90.3	83.5	92.6	88.8	70.4	56.1	191
25-29	99.6	87.3	88.2	79.3	85.2	74.4	91.7	79.5	59.8	48.6	222
30-39	98.4	82.0	82.5	71.6	90.7	81.1	94.1	82.0	63.2	47.6	302
40-49	100.0	88.0	85.7	79.8	90.3	85.0	91.0	83.8	65.0	52.3	201
Marital status											
Ever married/in union	99.3	84.7	84.5	75.4	89.0	79.7	92.3	81.9	62.8	49.3	809
Never married/in union	99.0	75.3	74.6	62.7	82.9	87.4	92.9	88.7	67.4	47.0	404
Education											
None	(100.0)	(84.8)	(72.1)	(70.7)	(86.9)	(79.7)	(92.0)	(67.1)	(39.4)	(21.0)	28
Primary	98.7	76.9	79.3	67.7	84.9	76.2	90.0	82.3	58.1	41.8	662
Secondary	99.8	87.4	84.1	75.7	89.6	90.2	95.7	87.5	73.6	58.6	522
Wealth index quintile											
Poorest	98.9	79.6	82.4	71.5	83.8	78.9	94.5	79.2	57.5	43.1	197
Second	99.5	77.7	78.9	66.4	89.2	80.1	89.5	85.5	63.9	43.6	227
Middle	98.1	77.1	77.5	65.3	84.4	82.0	90.6	84.9	65.3	46.5	240

Fourth	99.6	82.3	78.9	69.7	86.6	83.7	92.5	84.3	62.5	45.2	263
Richest	99.7	89.2	87.4	81.1	89.8	85.4	95.1	85.8	70.3	60.9	285
Ethnicity of household head											
Luhya	99.1	81.3	80.9	70.5	87.1	81.8	92.2	84.1	64.1	47.7	1,086
Other ethnic group	100.0	84.0	83.8	77.0	85.9	86.5	95.3	84.7	66.6	55.3	127
¹MICS indicator 9.1; MDG indicator 6.3 - Knowledge about HIV prevention among young women											
() Figures that are based on 25-49 unweighted cases											

Table HA.1 also presents the percentage of women who correctly identified misconceptions concerning HIV. The indicator is based on the two most common and relevant misconceptions in Bungoma County.

Overall, 64 percent of women age 15-49 years reject the two most common misconceptions and know that a healthy-looking person can be HIV-positive. The proportion of women who know that HIV cannot be transmitted by mosquito bites, supernatural means or by sharing food with someone with HIV are 82 percent, 93 percent and 84 percent, respectively. Eighty-seven percent of women know that a healthy-looking person can be HIV-positive. Some of these indicators are also presented graphically in Figure HA.1.

Figure HA.1: Women with comprehensive knowledge of HIV transmission, Bungoma County MICS, 2013/14



11.2 Knowledge of mother-to-child HIV transmission (MTCT)

In Kenya, infants infected with HIV annually due to mother-to-child transmission declined from 44,000 in 2000 to 12,940 in 2013.¹¹⁴ To guide interventions on mother to child transmission of HIV, Kenya developed Guidelines for Prevention of Mother to Child Transmission (PMTCT) of HIV and AIDS, 2012 and the Kenya Strategic Framework for EMTCT, 2012. The Guidelines complement Kenya's National Health Sector Strategic Plan II (NHSSP II) and the Kenya National AIDS Strategic Plan (KNASP III) 2009-2013 which focuses on the priority areas of prevention of new infections, improving the quality of life of people infected and affected by HIV and AIDS, and mitigation of the social and economic impact of

¹¹⁴ Ministry of Health. 2014. Kenya HIV Estimates

the infection (ibid). The strategies and guidelines are in line with the WHO PMTCT Strategic Vision 2010-2015 and the 2010 WHO Guidelines on Prevention of Mother-to-Child Transmission (PMTCT) programmes.

Table HA.2: Knowledge of mother-to-child HIV transmission (women)							
Percentage of women age 15-49 years who correctly identify means of HIV transmission from mother to child, Bungoma County Survey, 2013/14							
	Percentage of women age 15-49 who have heard of AIDS and:					Do not know any of the specific means of HIV transmission from mother to child	Number of women age 15-49 years
	Know HIV can be transmitted from mother to child:			By at least one of the three means	By all three means ¹		
	During pregnancy	During delivery	By breastfeeding				
Total	55.4	80.7	87.6	93.2	48.7	6.0	1,213
Area							
Urban	53.0	82.4	88.5	92.8	47.8	6.6	563
Rural	57.5	79.2	86.9	93.5	49.4	5.6	650
Age group							
15-24	51.5	74.9	84.8	90.9	44.1	8.3	487
15-19	54.2	70.5	80.8	87.7	45.1	10.9	296
20-24	47.3	81.8	90.9	95.8	42.5	4.2	191
25-29	59.1	82.0	90.6	92.8	54.7	6.8	222
30-39	55.5	83.6	87.3	94.8	46.6	3.6	302
40-49	60.9	88.8	91.8	96.5	56.3	3.5	201
Marital status							
Ever married/in union	56.4	84.6	89.6	94.6	50.5	4.7	809
Never married/in union	53.6	72.8	83.7	90.3	45.0	8.7	404
Education							
None	(67.4)	(71.1)	(87.7)	(90.0)	(53.1)	(10.0)	28
Primary	55.0	76.7	83.8	90.3	47.5	8.4	662
Secondary+	55.4	86.3	92.5	97.0	50.0	2.8	522
Wealth index quintile							
Poorest	53.5	74.0	87.6	92.3	44.7	6.6	197
Second	64.0	84.8	88.1	96.2	55.7	3.3	227
Middle	59.5	78.8	86.1	91.9	50.2	6.2	240
Fourth	56.2	82.0	91.1	95.0	51.0	4.6	263
Richest	45.8	82.4	85.4	90.7	42.4	8.9	285
Ethnicity of household head							
Luhya	56.5	80.7	87.8	93.4	49.2	5.7	1,086
Other ethnic group	46.7	80.6	86.3	91.3	43.9	8.7	127
¹ MICS indicator 9.2 - Knowledge of mother-to-child transmission of HIV							
() Figures that are based on 25-49 unweighted cases							

Knowledge of mother-to-child transmission of HIV is an important first step for women to seek HIV testing when they are pregnant to avoid infection of the baby. Women and men should know that HIV can be transmitted during pregnancy, during delivery, and through breastfeeding. The level of knowledge among women age 15-49 years concerning mother-to-child transmission is presented in Tables HA.2. In Bungoma County, 93 percent of women know that HIV can be transmitted from mother to child by at least one of the three means. The percentage of women who know all three ways of

mother-to-child transmission is 49 percent, while six percent of women do not know of any specific way. Older women and those ever married are more likely to know all three ways of mother-to-child transmission than their counterparts.

11.3 Accepting Attitudes toward People Living with HIV

The indicators on attitudes toward people living with HIV measure stigma and discrimination in the community. Stigma and discrimination are considered low if respondents report an accepting attitude on the following four questions: 1) would care for a family member with AIDS in own home; 2) would buy fresh vegetables from a vendor who is HIV-positive; 3) thinks that a female teacher who is HIV-positive should be allowed to teach in school; and 4) would not want to keep it a secret if a family member is HIV-positive.

Table HA.3 and Figure HA.2 present the attitudes of women age 15-49 years towards people living with HIV. Ninety-eight percent of women who have heard of AIDS agree with at least one accepting statement. The most common accepting attitude is willingness to care for a family member with AIDS in own home (93 percent). The proportion of women who express accepting attitudes towards all four indicators declines to only 23 percent. More educated women tend to have a more accepting attitude than those with no education.

Figure HA.2: Accepting attitudes toward people living with HIV/AIDS, Bungoma County MICS, 2013/14

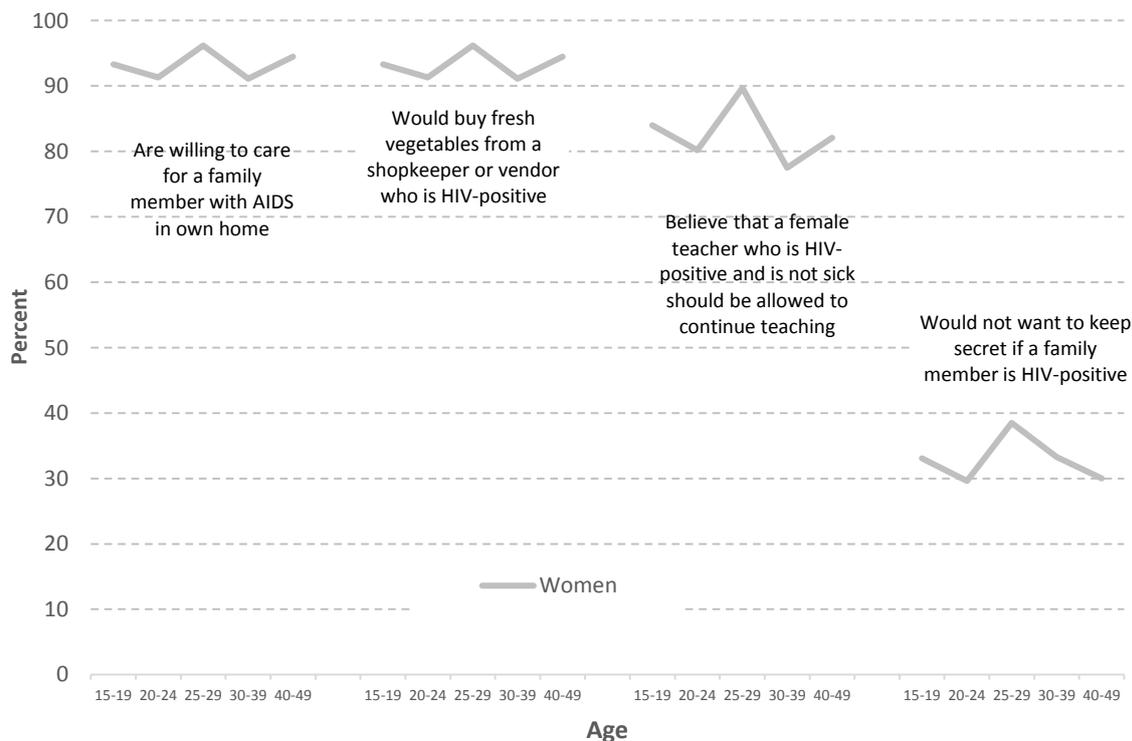


Table HA.3: Accepting attitudes toward people living with HIV (women)

Percentage of women age 15-49 years who have heard of AIDS who express an accepting attitude towards people living with HIV, Bungoma County MICS, 2013/14

	Percentage of women who:						Number of women age 15-49 years who have heard of AIDS
	Are willing to care for a family member with AIDS in own home	Would buy fresh vegetables from a shopkeeper or vendor who is HIV-positive	Believe that a female teacher who is HIV-positive and is not sick should be allowed to continue teaching	Would not want to keep secret that a family member is HIV-positive	Agree with at least one accepting attitude	Express accepting attitudes on all four indicators ¹	
Total	93.1	83.6	81.6	31.8	98.3	23.0	1,203
Area							
Urban	96.1	88.9	87.3	33.1	99.1	27.1	559
Rural	90.4	79.0	76.7	30.8	97.6	19.4	644
Age							
15-24	93.3	83.9	84.0	33.1	97.1	23.7	483
15-19	91.3	79.9	80.2	29.6	95.8	20.7	292
20-24	96.2	90.0	89.7	38.5	99.1	28.3	191
25-29	91.1	81.3	77.5	33.3	98.9	22.3	221
30-39	94.5	83.6	82.1	30.0	99.3	23.0	298
40-49	92.7	85.3	79.8	29.9	98.8	22.0	201
Marital status							
Ever married/in union	93.6	83.8	81.0	30.8	98.9	22.0	803
Never married/in union	92.1	83.0	82.8	34.0	96.9	24.9	400
Education							
None	(86.0)	(79.3)	(55.1)	(15.8)	(100.0)	(1.7)	28
Primary	91.0	79.7	76.4	29.5	97.2	18.6	654
Secondary+	96.0	88.6	89.6	35.7	99.4	29.6	521
Wealth index quintile							
Poorest	94.6	83.1	76.1	33.4	98.7	22.8	195
Second	91.3	81.2	75.8	33.0	99.6	22.8	226
Middle	89.2	81.9	81.9	29.5	95.9	20.7	235
Fourth	94.1	82.9	82.2	30.6	98.3	22.0	262
Richest	95.6	87.8	89.2	32.9	98.9	26.0	284
Ethnicity of household head							
Luhya	92.8	83.0	81.3	31.8	98.2	22.5	1,076
Other ethnic group	95.5	88.7	84.1	32.5	98.6	27.2	127
¹ MICS indicator 9.3 - Accepting attitudes towards people living with HIV							
() Figures that are based on 25-49 unweighted cases							

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

Another important indicator is the knowledge of where to be tested for HIV and use of such services. In order to protect themselves and to prevent infecting others, it is important for individuals to know their HIV status. Knowledge of own status is also a critical factor in the decision to seek treatment.

Results related to knowledge of a facility for HIV testing and whether a person had ever been tested is presented in Tables HA.4. Ninety-one percent of women age 15-49 years know of a place where to be tested, while 74 percent have been tested. Forty-seven percent of women know the result of their

most recent test. Overall, knowledge of a place to get tested is 79 percent and above, for urban/rural areas, age, sexual activity and level of education.

The proportion of women age 15-49 years who had been tested within the last 12 months preceding the survey is 48 percent, while those who had been tested within the last 12 months and know the result is 41 percent. The number of women who had been tested in the last 12 months preceding the survey and know their results is similar for urban and rural areas. The proportion of women who had been tested in the last twelve months and know their results ranges from 24 percent for those age 15-19 years to 50 percent for those in the 25-39 age group, thereafter it declines to 40 percent for those in the 40-49 years age group.

Table HA.4: Knowledge of a place for HIV testing (women)

Percentage of women age 15-49 years who know where to get an HIV test, percentage who have ever been tested, percentage who have ever been tested and know the result of the most recent test, percentage who have been tested in the last 12 months, and percentage who have been tested in the last 12 months and know the result, Bungoma County MICS, 2013/14

	Percentage of women who:					Number of women age 15-49 years
	Know a place to get tested ¹	Have ever been tested	Have ever been tested and know the result of the most recent test	Have been tested in the last 12 months	Have been tested in the last 12 months and know the result ^{2,3}	
Total	91.0	73.6	46.7	47.7	41.4	1,213
Area						
Urban	92.0	75.1	46.8	47.7	42.1	563
Rural	90.2	72.3	46.6	47.6	40.7	650
Age						
15-24	84.5	52.5	36.0	36.5	32.7	487
15-19	79.1	35.6	25.0	25.8	24.4	296
20-24	92.9	78.8	52.9	53.1	45.6	191
25-29	95.8	92.7	60.3	62.0	49.9	222
30-39	94.3	89.2	58.0	59.2	49.9	302
40-49	96.6	80.0	40.5	41.5	40.0	201
Age and sexual activity in the last 12 months						
Sexually active	94.6	87.1	55.7	56.9	48.1	825
15-24 ³	91.0	82.5	56.3	57.2	48.0	187
15-19	83.8	71.5	53.0	55.7	49.4	52
20-24	93.7	86.7	57.5	57.8	47.5	134
25-49	95.7	88.4	55.5	56.8	48.1	638
Sexually inactive	83.4	45.1	27.6	28.0	27.1	388
Marital status						
Ever married/in union	95.4	88.4	54.6	55.8	47.5	809
Never married/in union	82.3	44.1	30.8	31.3	29.1	404
Education						
None	(91.8)	(64.2)	(45.2)	(45.2)	(45.2)	28
Primary	87.0	67.4	42.9	43.8	36.7	662
Secondary+	96.1	82.1	51.6	52.7	47.1	522
Wealth index quintile						
Poorest	89.6	73.4	48.6	48.8	40.1	197
Second	93.1	72.3	37.4	38.8	33.3	227
Middle	85.3	60.5	40.6	41.4	35.4	240
Fourth	90.9	76.1	50.3	50.9	45.6	263
Richest	95.3	83.4	54.5	56.2	49.8	285
Ethnicity of household head						
Luhya	90.7	72.5	45.3	46.3	40.5	1,086
Other ethnic group	93.6	83.1	58.6	58.9	48.9	127
¹ MICS indicator 9.4 - Women who know where to be tested for HIV						
² MICS indicator 9.5 - Women who have been tested for HIV and know the results						
³ MICS indicator 9.6 - Sexually active young women who have been tested for HIV and know the results						
() Figures that are based on 25-49 unweighted cases						

Among women who had given birth within the two years preceding the survey, the percentage who received counselling and HIV testing during antenatal care is presented in Table HA.5. Three quarters of women age 15-49 years with a live birth in the last two years preceding the survey received HIV

counselling during ANC, 83 percent were offered an HIV test and were tested for HIV; and 76 percent received HIV counselling, were offered an HIV test, accepted and received the results. More women in urban areas received HIV counselling, HIV testing, and received the results during ANC than those in rural areas.

Table HA.5: HIV counselling and testing during antenatal care

Percentage of women age 15-49 with a live birth in the last 2 years who received antenatal care from a health professional during the last pregnancy, percentage who received HIV counselling, percentage who were offered and tested for HIV, percentage who were offered, tested and received the results of the HIV test, and percentage who received counselling and were offered, accepted and received the results of the HIV test, Bungoma County MICS, 2013/14

	Percentage of women who:					Number of women age 15-49 years with a live birth in the last 2 years
	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	
Total	89.1	75.8	82.9	82.7	75.6	311
Area						
Urban	96.7	82.4	91.3	90.8	82.4	137
Rural	83.1	70.6	76.3	76.3	70.3	174
Age						
15-24	88.6	77.8	85.5	85.5	77.8	92
25-29	91.7	74.2	84.3	84.3	74.2	96
30-39	87.9	76.2	81.6	80.9	75.7	98
40-49	(*)	(*)	(*)	(*)	(*)	24
Marital status						
Ever married/in union	89.3	76.0	82.5	82.3	75.8	282
Never married/in union	(86.7)	(73.8)	(86.7)	(86.7)	(73.8)	29
Education						
None	(*)	(*)	(*)	(*)	(*)	5
Primary	86.3	72.0	78.2	78.2	72.0	189
Secondary+	93.8	84.2	92.4	91.9	83.8	116
Wealth index quintile						
Poorest	89.7	74.3	74.2	74.2	73.6	68
Second	83.6	77.3	82.1	82.1	77.3	65
Middle	88.0	68.6	83.2	83.2	68.6	55
Fourth	95.1	76.7	85.5	85.5	76.7	56
Richest	89.6	80.9	90.1	89.1	80.9	68
Ethnicity of household head						
Luhya	88.7	75.1	81.7	81.4	75.0	272
Other ethnic group	91.8	80.3	91.6	91.6	80.3	39
¹ MICS indicator 9.7 - HIV counselling during antenatal care						
² MICS indicator 9.8 - HIV testing during antenatal care						
() Figures that are based on 25-49 unweighted cases						
(*) Figures that are based on fewer than 25 unweighted cases						

11.5 Sexual Behaviour Related to HIV Transmission

Promoting safer sexual behaviour is critical in reducing HIV prevalence. The use of condoms during sex, especially when non-regular or multiple partners are involved, is particularly important for

reducing the spread of HIV. A set of questions was administered to all women age 15-49 years to assess their risk of HIV infection.

As shown in Table HA.6, two percent of women 15-49 years of age reported that they had sex with more than one partner in the last 12 months. Overall, the mean number of lifetime sexual partners is 2.¹¹⁵

Table HA.6: Sex with multiple partners (women)

Percentage of women age 15-49 years who ever had sex, percentage who had sex in the last 12 months, percentage who had sex with more than one partner in the last 12 months, mean number of sexual partners in lifetime for women who have ever had sex, and among those who had sex with multiple partners in the last 12 months, the percentage who used a condom at last sex, Bungoma County MICS, 2013/14

	Percentage of women who:			Number of women age 15-49 years	Mean number of sexual partners in lifetime	Number of women age 15-49 years who have ever had sex
	Ever had sex	Had sex in the last 12 months	Had sex with more than one partner in last 12 months ¹			
Total	79.4	68.1	2.3	1,213	2.0	963
Area						
Urban	78.9	66.6	1.6	563	2.0	444
Rural	79.8	69.4	2.9	650	2.0	518
Age						
15-24	49.9	38.3	1.6	487	1.8	243
15-19	26.4	17.6	1.5	296	1.6	78
20-24	86.2	70.4	1.9	191	1.9	165
25-29	97.9	90.3	1.1	222	2.1	218
30-39	99.5	92.2	4.2	302	2.2	301
40-49	100.0	79.3	2.5	201	1.9	201
Marital status						
Ever married/in union	100.0	91.2	2.3	809	2.0	809
Never married/in union	38.1	21.8	2.4	404	1.8	154
Education						
None	(91.4)	(83.6)	(0.0)	28	(2.2)	26
Primary	77.5	67.9	2.6	662	2.1	514
Secondary+	81.1	67.5	2.1	522	1.9	423
Wealth index quintile						
Poorest	82.1	71.2	3.2	197	2.2	162
Second	77.4	68.2	2.4	227	2.1	176
Middle	77.5	64.5	1.1	240	1.8	186
Fourth	78.0	69.0	2.8	263	2.0	205
Richest	81.9	68.0	2.3	285	1.9	234
Ethnicity of household head						
Luhya	78.9	67.3	2.4	1,086	2.0	856
Other ethnic group	83.6	74.3	1.4	127	2.1	106
¹ MICS indicator 9.12 - Multiple sexual partnerships						
² MICS indicator 9.13 - Condom use at last sex among people with multiple sexual partnerships (this indicator could not be presented due to insufficient sample size)						
() Figures that are based on 25-49 unweighted cases						

¹¹⁵ The percentage of women who had more than one sexual partner in the last 12 months reporting that a condom was used the last time they had sex could not be included in the table due to the small number of cases reported.

11.6 HIV Indicators for Young Women

In many countries, over half of new adult HIV infections are among young people of age 15-24 years thus a change in behaviour among members of this age group is especially important to reduce new infections.

Table HA.7 summarizes information on key HIV indicators for young women in Bungoma County. Forty-eight percent of young women have comprehensive knowledge. Young women who know of three means of HIV transmission from mother-to-child are 44 percent and 85 percent have knowledge of a place to get tested. Young urban women are more likely to demonstrate comprehensive knowledge of HIV (51 percent) than their rural counterparts (45 percent). The proportion for the same indicator is 57 percent and 44 percent among ever married/in union and never married/in union, respectively.

Overall, 48 percent of young women in this age group, who were sexually active, had been tested for HIV in the last 12 months and know the result. There are disparities by place of residence, and marital status. The percentage of sexually active women who had been tested for HIV in the past 12 months and know the result is 51 percent in urban areas and 46 percent in rural areas. The proportion is high among young women with secondary/higher education (64 percent) compared with those with primary education (35 percent).

Table HA.7: Key HIV and AIDS indicators (young women)

Percentage of women age 15-24 years by key HIV and AIDS indicators, Bungoma County MICS, 2013/14

	Percentage of women age 15-24 years who:						Number of women age 15-24 years	Percentage of sexually active young women who have been tested for HIV in the last 12 months and know the result ²	Number of women age 15-24 years who had sex in the last 12 months	Percentage who express attitudes towards people living with HIV on all four indicators ^a	Number of women age 15-24 years who have heard of AIDS
	Have comprehensive knowledge ¹	Know all three means of HIV transmission from mother to child	Know a place to get tested for HIV	Have ever been tested and know the result of the most recent test	Have been tested for HIV in the last 12 months and know the result	Had sex in the last 12 months					
Total	47.5	44.1	84.5	36.0	32.7	38.3	487	48.0	187	23.7	483
Area											
Urban	50.6	47.1	86.3	37.8	34.0	38.2	228	50.6	87	32.2	226
Rural	44.7	41.5	82.9	34.4	31.6	38.4	259	45.7	100	16.2	257
Age											
15-19	41.9	45.1	79.1	25.0	24.4	17.6	296	49.4	52	20.7	292
15-17	33.4	44.9	71.7	15.6	14.6	13.0	193	(*)	25	17.1	189
18-19	57.8	45.5	93.0	42.7	42.7	26.3	103	(72.7)	27	27.2	102
20-24	56.1	42.5	92.9	52.9	45.6	70.4	191	47.5	134	28.3	191
20-22	56.1	45.0	93.0	56.4	49.6	56.5	104	52.4	59	27.8	104
23-24	56.1	39.7	92.7	48.8	40.7	87.1	87	43.6	76	28.8	87
Marital status											
Ever married/in union	57.3	43.3	94.9	63.8	54.0	95.0	133	52.8	126	22.9	133
Never married/in union	43.8	44.4	80.6	25.5	24.7	17.0	354	38.0	60	24.0	350
Education											
None	(*)	(*)	(*)	(*)	(*)	(*)	2	-	0	(*)	2
Primary	38.8	43.0	76.1	25.7	23.2	37.3	278	35.3	104	17.8	274
Secondary+	59.1	45.5	96.2	50.3	46.0	40.2	206	63.8	83	31.7	206
Wealth index quintile											
Poorest	51.8	36.0	79.6	40.7	33.2	39.8	63	(50.3)	25	13.2	61
Second	41.1	58.2	86.2	21.3	18.2	39.1	93	(25.9)	36	28.8	91
Middle	40.4	47.0	76.7	25.2	23.3	31.0	108	(29.2)	34	24.2	108

Fourth	42.5	41.5	82.5	35.3	32.5	39.4	107	(49.5)	42	21.3	107
Richest	61.4	36.8	94.9	55.8	53.1	42.8	116	(74.4)	50	26.8	116
Ethnicity of household head											
Luhya	48.1	44.8	83.7	33.5	31.1	36.5	434	45.5	159	24.0	430
Other ethnic group	42.6	38.0	91.5	56.2	45.9	53.2	53	(62.3)	28	20.9	53
¹ MICS indicator 9.1; MDG indicator 6.3 - Knowledge about HIV prevention among young women											
² MICS indicator 9.6 - Sexually active young women who have been tested for HIV and know the results											
^a Refer to Table HA.3 for the four indicators.											
() Figures that are based on 25-49 unweighted cases											
(*) Figures that are based on fewer than 25 unweighted cases											

Certain behaviour may create, increase, or perpetuate risk of exposure to HIV. For this young age group, such behaviour includes sex at an early age and women having sex with older men.

Table HA.8 shows results on sexual behaviour of young women age 15-24 years. Overall, 10 percent of young women reported ever having sex before age 15. Further, two percent of young women had sex with more than one partner in the last 12 months. On the other hand, 14 percent of the young women who had sex in the last 12 months reported that it involved a non-marital, non-cohabiting partner; of those only 55 percent of women used a condom the last time. About 19 percent of women age 15-24 years who had sex in the last 12 months, had sex with a man 10 or more years older.¹¹⁶

¹¹⁶Two columns, that were to assess percentage of women 15-24 years who had sex with more than one partner in the last 12 months reporting that a condom was used the last time they had sex, were removed from the table due to small number of cases reported.

Table HA.8: Key sexual behaviour indicators (young women)

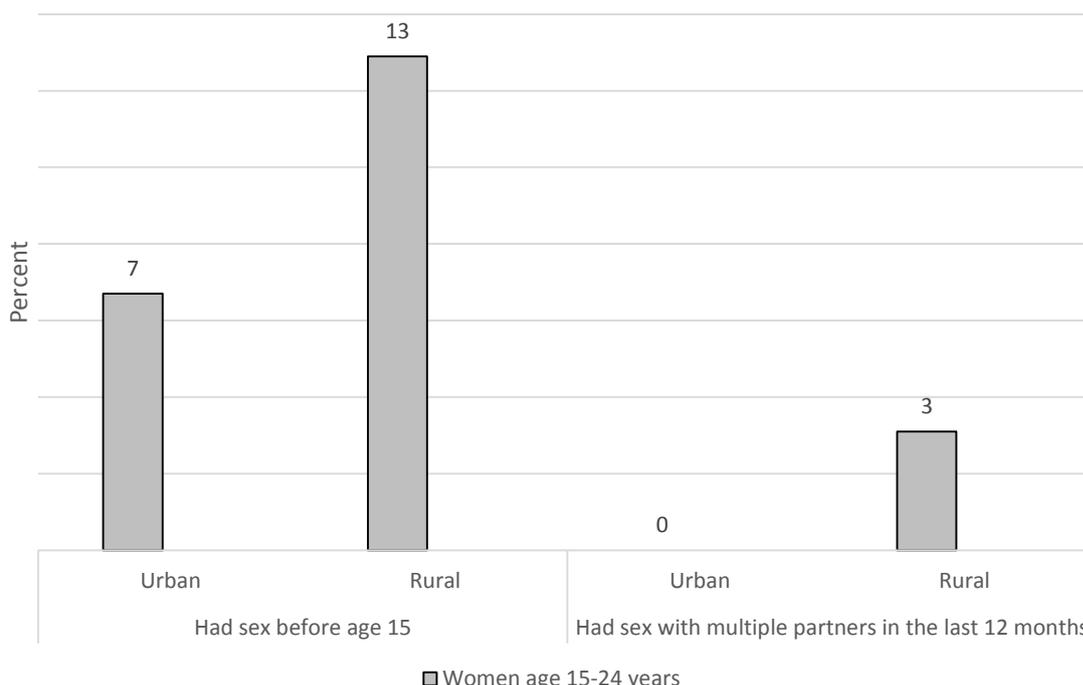
Percentage of women age 15-24 years by key sexual behaviour indicators, Bungoma County MICS, 2013/14

	Percentage of women age 15-24 years who:			Number of women age 15-24 years	Percentage of women who never had sex ²	Number of never-married women age 15-24 years	Percentage of women age 15-24 years who had sex with:		Number of women age 15-24 years who had sex in the last 12 months	Percentage reporting the use of a condom during the last sexual intercourse with a non-marital, non-cohabiting partner in the last 12 months ⁵	Number of women age 15-24 years who had sex with a non-marital, non-cohabiting partner in last 12 months
	Had sex before age 15 ¹	Ever had sex	Had sex with more than one partner in last 12 months				A man 10 or more years older ³	A non-marital, non-cohabiting partner ⁴			
Total	10.0	49.9	1.6	487	69.0	354	19.0	13.9	187	55.1	67
Area											
Urban	6.7	50.1	0.0	228	71.1	160	20.0	10.7	87	(53.8)	24
Rural	12.9	49.7	3.1	259	67.2	194	18.3	16.6	100	(55.8)	43
Age											
15-19	7.4	26.4	1.5	296	80.0	272	15.1	13.1	52	(42.5)	39
15-17	7.9	19.2	2.0	193	81.9	190	(*)	(*)	25	(*)	23
18-19	6.6	39.8	0.6	103	75.8	82	22.8	15.1	27	(*)	16
20-24	14.0	86.2	1.9	191	32.2	82	20.6	15.1	134	(72.0)	29
20-22	9.6	81.4	0.0	104	35.2	55	22.6	13.7	59	(*)	14
23-24	19.4	91.9	4.1	87	(26.1)	27	19.1	16.8	76	(*)	15
Marital status											
Ever married/in union	19.0	100.0	0.5	133	na	na	25.7	7.3	126	(*)	10
Never married/in union	6.7	31.0	2.1	354	69.0	354	5.0	16.3	60	61.5	58
Education											
None	(*)	(*)	(*)	2	(*)	2	-	-	0	-	0
Primary	13.9	46.5	1.9	278	74.2	201	24.8	13.4	104	(45.3)	37
Secondary+	4.9	55.0	1.3	206	61.5	151	11.9	14.7	83	(67.2)	30
Wealth index quintile											
Poorest	8.8	49.7	1.0	63	76.9	41	(23.6)	(5.9)	25	(*)	4
Second	14.5	44.5	0.0	93	78.3	66	(12.8)	(10.0)	36	(*)	9

Middle	11.0	50.4	0.6	108	63.8	84	(21.1)	(15.9)	34	(*)	17
Fourth	12.1	47.0	5.7	107	70.2	81	(21.4)	(16.0)	42	(*)	17
Richest	4.4	56.5	0.5	116	61.7	82	17.9	17.4	50	(*)	20
Ethnicity of household head											
Luhya	10.4	48.6	1.8	434	68.8	325	19.8	14.4	159	54.0	62
Other ethnic group	7.4	60.3	0.0	53	(71.4)	29	(14.6)	(9.7)	28	(*)	5
¹ MICS indicator 9.10 - Sex before age 15 among young women											
² MICS indicator 9.9 - Young women who have never had sex											
³ MICS indicator 9.11 - Age-mixing among sexual partners											
⁴ MICS indicator 9.14 - Sex with non-regular partners											
⁵ MICS indicator 9.15; MDG indicator 6.2 - Condom use with non-regular partners											
na: not applicable											
() Figures that are based on 25-49 unweighted cases											
(*) Figures that are based on fewer than 25 unweighted cases											

Figure HA.3 brings together two critical behaviours that are known to increase the risk of HIV infection, sex before age 15, and sex with multiple partners, from tables HA.8 and HA.6. More young women age 15-24 years residing in rural areas had sex before age 15 and had sex with multiple partners in the 12 months preceding the survey than those in urban areas.

Figure HA.3: Sexual behaviour that increases the risk of HIV infection, young women age 15-24, Bungoma County MICS, 2013/14



11.7 Orphans

While the number of children orphaned due to AIDS has stabilized globally since 2009, efforts to mitigate the impact of AIDS on households, communities, and children continue to be intensified by national programmes and global partners. Children who are orphaned may be at increased risk of neglect or exploitation when the parents are not available to assist them. Monitoring the variations in different outcomes for orphans and comparing them to their peers gives us a measure of how well communities and governments are responding to their needs. Please refer to Table CP.14 on page 157 for detailed information on living conditions of children and overall prevalence of orphanhood.

One percent of children age 10-14 years in Bungoma County are orphans. There were only ten orphans age 10-14 years in the data, all of whom were attending school.¹¹⁷

¹¹⁷ Table with MICS indicator 9.16; MDG indicator 6.4 - Ratio of school attendance of orphans to school attendance of non-orphans cannot be shown due to small sample size of the orphans population aged 10-14 years.

12. Access to Mass Media and Use of Information and Communication Technology

The Government of Kenya recognizes the role of Information and Communication Technology (ICT) in the social and economic development of the nation and has developed a national ICT Policy based on the Economic Recovery Strategy for Wealth and Employment Creation (2003-2007). In the National ICT Policy (2006), the Government's vision is to make Kenya 'a prosperous ICT-driven society'.^{118, 119}

The Bungoma County MICS collected information on exposure to mass media and the use of computers and the internet. Information was collected on exposure to newspapers/magazines, radio and television among women age 15-49 years, while the questions on the use of computers and the use of the internet were asked to young women age 15-24 years. This chapter, therefore, discusses access to mass media and use of ICT.

12.1 Access to Mass Media

The proportion of women who read a newspaper or magazine, listen to the radio and watch television at least once a week is shown in Table MT.1. About 17 percent of women in Bungoma County read a newspaper or magazine, 71 percent listen to the radio, and 23 percent watch television at least once a week. Overall, 24 percent do not have regular exposure to any of the three media, while 76 percent are exposed to at least one and nine percent to all the three types of media on a weekly basis.

Differentials by education and household wealth are observed for exposure to all types of media. Women with secondary and higher education are four times more likely to have been exposed to all three types of media than women with only primary education. Similarly, women from the richest households are more likely to have been exposed to all three types of media (28 percent) than women from the poorest households (1 percent).

¹¹⁸ <http://www1.american.edu/initeb/en6343a/ICT-policy.htm>

¹¹⁹ Ministry of Information and Communications. 2006. National Information and Communications Technology (ICT) Policy.

Table MT.1: Exposure to mass media (women)

Percentage of women age 15-49 years who are exposed to specific mass media on a weekly basis, Bungoma County MICS, 2013/14

	Percentage of women age 15-49 years who:						Number of women age 15-49 years
	Read a newspaper at least once a week	Listen to the radio at least once a week	Watch television at least once a week	All three media at least once a week ¹	Any media at least once a week	None of the media at least once a week	
Total	16.6	71.1	23.0	8.5	75.5	24.1	1,213
Age							
15-19	17.1	68.7	21.6	8.5	73.8	25.5	296
20-24	14.5	81.9	22.1	5.6	85.1	14.9	191
25-29	16.3	70.9	26.0	9.0	74.5	24.9	222
30-34	30.7	65.6	28.1	13.9	75.3	24.7	161
35-39	11.8	67.2	25.2	8.7	70.1	28.9	142
40-44	8.6	71.5	17.3	6.5	73.2	26.8	110
45-49	12.9	72.5	16.7	6.3	74.8	25.2	92
Area							
Urban	18.8	71.5	27.1	10.4	77.3	22.1	563
Rural	14.8	70.8	19.5	6.8	73.9	25.9	650
Education							
None	(7.0)	(61.0)	(11.7)	(0.0)	(73.6)	(26.4)	28
Primary	8.4	64.7	14.1	3.5	68.4	31.1	662
Secondary+	27.6	79.8	34.9	15.3	84.6	15.1	522
Wealth index quintile							
Poorest	5.1	42.0	0.9	0.7	43.6	55.9	197
Second	7.4	65.8	2.3	0.8	69.6	30.4	227
Middle	10.9	72.8	6.8	2.3	75.9	23.1	240
Fourth	15.9	77.5	22.3	5.0	82.0	17.5	263
Richest	37.5	88.3	69.1	28.4	95.9	4.1	285
Ethnicity of household head							
Luhya	15.8	71.8	21.7	8.0	75.5	24.3	1,086
Other ethnic group	24.1	65.7	34.2	13.1	75.3	22.8	127
¹ MICS indicator 10.1 - Exposure to mass media							
() Figures that are based on 25-49 unweighted cases							

12.2 Use of Information and Communication Technology

The questions on computer and internet use were asked only to young women age 15-24 years. As shown in Table MT.2, 19 percent of young women age 15-24 years ever used a computer, 13 percent had used a computer during the last 12 months and seven percent used a computer at least once a week during the last month.

Overall, nine percent of young women age 15-24 years ever used the internet, while eight percent used the internet during the last 12 months. The proportion of young women who uses the internet more frequently, at least once a week during the last month, is smaller, at six percent.

Both computer and internet use during the last 12 months are more widespread among the 20-24 year old women. Use of a computer and the internet is also strongly associated with education and wealth. Only about one percent of women with primary education report using a computer during the last 12 months, while about a third of the women with higher education use a computer during the same period. Similarly, higher utilisation of a computer and the internet is observed among young women in the richest households. For example, 20 percent of women living in the wealthiest households used a computer at least once during the month before the survey, and 18 percent of them used the internet at least once a week during the same period. By contrast, the proportions for the women in the poorest households are three and less than one percent, respectively.

Table MT.2: Use of computers and internet (women)

Percentage of young women age 15-24 years who have ever used a computer and the internet, percentage who have used during the last 12 months, and percentage who have used at least once weekly during the last one month, Bungoma County MICS, 2013/14

	Percentage of women age 15-24 years who have:						Number of women age 15-24 years	
	Ever used a computer	Used a computer during the last 12 months ¹	Used a computer at least once a week during the last one month	Ever used the internet	Used the internet during the last 12 months ²	Used the internet at least once a week during the last one month		
Total	19.4	12.8	7.2	8.8	8.3	6.2	487	
Age								
15-19	15.4	9.5	5.2	5.6	5.2	3.5	296	
20-24	25.6	17.9	10.3	13.7	13.1	10.4	191	
Area								
Urban	21.7	15.5	8.0	11.8	11.2	9.2	228	
Rural	17.4	10.4	6.4	6.1	5.8	3.6	259	
Education								
None	(*)	(*)	(*)	(*)	(*)	(*)	2	
Primary	4.3	0.5	0.4	1.1	0.9	0.7	278	
Secondary+	40.0	29.4	16.4	19.3	18.4	13.8	206	
Wealth index quintile								
Poorest	4.7	2.9	2.9	2.5	1.8	0.0	63	
Second	9.2	3.5	0.9	1.4	1.4	0.0	93	
Middle	13.1	9.8	3.7	4.8	4.8	4.1	108	
Fourth	25.6	13.0	4.6	9.6	9.2	4.8	107	
Richest	35.7	28.1	20.2	21.1	19.9	17.7	116	
Ethnicity of household head								
Luhya	18.3	11.9	6.2	7.1	7.0	5.0	434	
Other ethnic group	29.0	19.7	15.5	22.3	19.5	16.6	53	
	¹ MICS indicator 10.2 - Use of computers							
	² MICS indicator 10.3 - Use of internet							
(*) Figures that are based on fewer than 25 unweighted cases								

13. Subjective well-being

Subjective perceptions of individuals of their incomes, health, living environments and the like, play a significant role in their lives and can impact their perception of well-being, irrespective of objective conditions such as actual income and physical health status.¹²⁰ In the MICS, a set of questions were asked to women age 15-24 years to understand how satisfied this group of young people is in different areas of their lives, such as their family life, friendships, school, current job, health, where they live, how they are treated by others, how they look, and their current income.

Life satisfaction is a measure of an individual's perceived level of well-being. Understanding young women's satisfaction in different areas of their lives can help to gain a comprehensive picture of young people's life situations. A distinction can also be made between life satisfaction and happiness. Happiness is a fleeting emotion that can be affected by numerous factors, including day-to-day factors such as the weather, or a recent death in the family. It is possible for a person to be satisfied with job, income, family life, friends, and other aspects of life, but still be unhappy, or vice versa. In addition to the set of questions on life satisfaction, the survey also asked questions about happiness and the respondents' perceptions of a better life.

To assist respondents in answering the set of questions on happiness and life satisfaction, they were shown a card with smiling faces (and not so smiling faces) that corresponded to the response categories (see the Questionnaires in Appendix H) 'very satisfied', 'somewhat satisfied', 'neither satisfied nor unsatisfied', 'somewhat unsatisfied' and 'very unsatisfied'. For the question on happiness, the same scale was used, this time ranging from 'very happy' to 'very unhappy', in the same fashion.

Table SW.1 shows the proportion of young women age 15-24 years, who are very or somewhat satisfied in selected domains. Note that for three domains, satisfaction with school, job and income, the denominators are confined to those who are currently attending school, have a job, and have an income. Of the different domains, young women are the most satisfied with their health (97 percent), the way they look (96 percent), followed by friendships and treatment by others (91 percent for each domain).

The percentage of women age 15-24 years who are very or somewhat satisfied; with school is 93 percent, with their job is 85 percent, and with their income is 73 percent.

¹²⁰ OECD. 2013. *OECD Guidelines on Measuring Subjective Well Being*. OECD. <http://dx.doi.org/10.1787/9789264191655-en>

Table SW.1: Domains of life satisfaction (women)

Percentage of women age 15-24 years who are very or somewhat satisfied in selected domains of satisfaction, Bungoma County MICS, 2013/14

	Percentage of women age 15-24 years who are very or somewhat satisfied in selected domains:						Percentage of women age 15-24 years who:				Percentage of women age 15-24 years who are very or somewhat satisfied with school	Number of women age 15-24 years attending school	Percentage of women age 15-24 years who are very or somewhat satisfied with their job	Number of women age 15-24 years who have a job	Percentage of women age 15-24 years who are very or somewhat satisfied with their income	Number of women age 15-24 years who have an income
	Family life	Friendships	Health	Living environment	Treatment by others	The way they look	Attending school	Have a job	Have an income	Number of women age 15-24 years						
Total	86.8	91.3	96.9	86.9	90.7	96.4	56.8	10.9	14.7	487	93.4	275	85.2	53	72.8	71
Age																
15-19	87.9	92.7	95.7	89.4	91.4	96.4	79.0	4.1	6.5	296	93.3	233	(*)	12	(*)	19
20-24	84.9	89.1	98.8	83.0	89.5	96.5	22.0	21.6	27.5	191	(94.2)	42	(84.1)	41	69.8	52
Area																
Urban	91.2	93.3	97.2	89.6	94.6	98.5	52.8	11.3	15.9	228	96.0	120	(86.7)	26	(71.1)	36
Rural	82.9	89.6	96.7	84.6	87.2	94.7	60.3	10.6	13.6	259	91.5	155	(*)	27	(74.4)	35
Marital Status																
Ever married/in union	80.0	88.1	98.4	83.5	89.1	96.9	4.1	25.4	33.0	133	(*)	5	(92.5)	33	(67.0)	43
Never married/in union	89.3	92.5	96.3	88.2	91.2	96.3	76.5	5.5	7.8	354	93.3	270	(*)	19	(81.8)	28
Education																
None	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	2	(*)	2	-	0	-	0
Primary	85.6	89.5	96.6	87.0	90.1	95.6	56.8	8.6	13.0	278	95.4	157	(*)	24	(82.0)	36
Secondary+	88.1	93.6	97.9	87.3	91.3	97.5	56.2	14.2	17.1	206	90.6	116	(89.4)	29	(63.3)	35
Wealth index quintile																
Poorest	86.9	92.3	97.3	88.3	93.6	98.3	56.2	4.7	5.5	63	(95.3)	35	(*)	3	(*)	3
Second	82.2	90.4	94.2	88.7	89.2	96.6	53.8	1.2	4.6	93	(89.2)	49	(*)	1	(*)	4
Middle	89.7	94.6	98.2	84.1	93.4	95.3	62.6	3.9	7.5	108	98.0	68	(*)	4	(*)	8
Fourth	88.4	94.3	96.1	84.6	90.8	95.4	59.1	13.0	17.5	107	93.0	63	(*)	14	(*)	19
Richest	86.0	85.9	98.4	89.7	87.5	97.2	51.7	26.7	31.8	116	91.1	59	(84.6)	31	(79.1)	37
Ethnicity of household head																
Luhya	86.4	91.5	96.8	86.7	90.3	96.3	58.2	9.5	13.1	434	93.2	252	(83.8)	41	70.9	57

Other ethnic group	89.7	89.8	98.1	88.9	93.8	97.7	44.9	22.2	27.3	53	(95.5)	23	(*)	12	(*)	14
() Figures that are based on 25-49 unweighted cases (*) Figures that are based on fewer than 25 unweighted cases																

In Table SW.2, proportions of women age 15-24 years with overall life satisfaction are shown. “Life satisfaction” is defined as those who are very or somewhat satisfied with their life overall, and is based on a single question which was asked after the life satisfaction questions on all of the above-mentioned domains, with the exception of the question on satisfaction with income, which was asked later.

In Bungoma County, 88 percent of women age 15-24 years are satisfied with their life. The proportion of women who are satisfied with life is higher in urban areas (94 percent) than in rural areas (83 percent). The proportions do not vary much by marital status and educational level.

As a summary measure, the average life satisfaction score is also calculated and presented in Table SW.2. The score is simply calculated by averaging the responses to the question on overall life satisfaction, ranging from very satisfied (1) to very unsatisfied (5) (see Questionnaires in Appendix H). Therefore, the lower the average score, the higher the life satisfaction levels. Average life satisfaction score for women age 15-24 years is 1.6.

Table SW.2 also shows that 90 percent of women age 15-24 years are very or somewhat happy. Differences by age, area and marital status are observed for this indicator. The percentage of women age 15-24 years who were very happy or somewhat happy is 93 percent for those age 15-19 years while it is 87 percent for those women age 20-24 years. The percentage for women in urban areas is 93 percent while it is 88 percent for those in rural areas. Women who had never married/in union are very happy or somewhat happy at 92 percent and those ever married/in union were at 86 percent.

Table SW.2: Overall life satisfaction and happiness (women)				
Percentage of women age 15-24 years who are very or somewhat satisfied with their life overall, the average overall life satisfaction score, and percentage of women age 15-24 years who are very or somewhat happy, Bungoma County MICS, 2013/14				
	Percentage of women with overall life satisfaction ¹	Average life satisfaction score	Percentage of women who are very or somewhat happy ²	Number of women age 15-24 years
Total	88.1	1.6	90.3	487
Age				
15-19	88.6	1.5	92.5	296
20-24	87.3	1.7	86.8	191
Area				
Urban	94.2	1.4	93.0	228
Rural	82.7	1.7	87.9	259
Marital Status				
Ever married/in union	87.1	1.6	85.6	133
Never married/in union	88.5	1.5	92.0	354
Education				
None	(*)	(*)	(*)	2
Primary	86.0	1.6	90.0	278
Secondary+	90.8	1.5	90.6	206
Wealth index quintile				
Poorest	91.7	1.5	90.4	63
Second	82.8	1.8	90.1	93
Middle	87.3	1.6	91.6	108
Fourth	87.8	1.5	85.7	107
Richest	91.5	1.4	93.3	116
Ethnicity of household head				
Luhya	87.6	1.6	90.0	434
Other ethnic group	91.9	1.4	92.1	53
¹ MICS Indicator 11.1 - Life satisfaction				
² MICS indicator 11.2 - Happiness				
(*) Figures that are based on fewer than 25 unweighted cases				

In addition to the series of questions on life satisfaction and happiness, respondents were also asked two simple questions on whether they think their life improved during the last one year, and whether they think their life will be better in one year's time. Such information may contribute to our understanding of desperation that may exist among young people, as well as hopelessness and hopes for the future. Specific combinations of the perceptions during the last one year and expectations for the next one year may be valuable information to understand the general sense of well-being among young people.

In Table SW.3, women's perceptions of a better life are shown. The proportion of women age 15-24 years who believe that their lives improved during the last one year and who expect that their lives would get better after one year, was 72 percent. There are no major differences among the various background characteristics.

Table SW.3: Perception of a better life (women)				
Percentage of women age 15-24 years who think that their lives improved during the last one year and those who expect that their lives will get better after one year, Bungoma County MICS, 2013/14				
	Percentage of women who think that their life			Number of women age 15-24 years
	Improved during the last one year	Will get better after one year	Both ¹	
Total	74.6	92.8	71.5	487
Age				
15-19	76.2	93.9	73.8	296
20-24	72.0	91.2	67.9	191
Area				
Urban	72.8	95.6	71.6	228
Rural	76.1	90.5	71.4	259
Marital Status				
Ever married/in union	74.8	93.6	72.5	133
Never married/in union	74.4	92.5	71.1	354
Education				
None	(*)	(*)	(*)	2
Primary	71.9	90.8	67.0	278
Secondary+	78.3	95.4	77.9	206
Wealth index quintile				
Poorest	74.2	91.7	70.0	63
Second	68.8	90.2	64.8	93
Middle	76.9	91.6	74.0	108
Fourth	72.2	97.9	71.7	107
Richest	79.3	92.0	75.1	116
Ethnicity of household head				
Luhya	74.3	93.0	71.3	434
Other ethnic group	76.3	91.1	73.5	53
¹ MICS indicator 11.3 - Perception of a better life				
(*) Figures that are based on fewer than 25 unweighted cases				

14. Tobacco and Alcohol Use

Tobacco products are products made entirely or partly of leaf tobacco as raw material, which are intended to be smoked, sucked, chewed, or snuffed. All contain the highly addictive psychoactive ingredient, nicotine. Tobacco use is one of the main risk factors for a number of chronic diseases, including cancer, lung diseases, and cardiovascular diseases.¹²¹

The consumption of alcohol carries a risk of adverse health and social consequences related to its intoxicating, toxic and dependence-producing properties. In addition to the chronic diseases that may develop in those who drink large amounts of alcohol over a number of years, alcohol use is also associated with an increased risk of acute health conditions, such as injuries, including from traffic accidents.¹²² Alcohol use also causes harm far beyond the physical and psychological health of the drinker. It harms the well-being and health of people around the drinker. An intoxicated person can harm others or put them at risk of traffic accidents or violent behaviour, or negatively affect co-workers, relatives, friends or strangers. Thus, the impact of the harmful use of alcohol reaches deep into society.¹²³

Tobacco control campaigns were initiated in Kenya in 1992 as part of the World No Tobacco Day celebration. In 2001, the Ministry of Health (MOH) established the National Tobacco Free Initiative Committee (NTFIC) to coordinate tobacco control activities, and a tobacco control focal point was designated.¹²⁴ The Government of Kenya participated in formulation of the 2003 WHO Framework Convention on Tobacco Control (FCTC) which contains articles aimed at reducing the supply of and demand for tobacco; protection from exposure to smoke; and a provision that addresses liability¹²⁵. Kenya ratified the convention in 2004. Tobacco Control Act [*Chapter 245A*] was enacted in 2007 to control the production, manufacture, sale, labelling, advertising, promotion and sponsorship of tobacco products, and the National Tobacco Control Action Plan was launched in 2010. Liquor control in the country is through the Liquor Licensing Act [*Chapter 121*].

The Bungoma County MICS collected information on ever and current use of tobacco and alcohol and intensity of use among women age 15-49 years. This section presents the main results.

14.1 Tobacco Use

Table TA.1 presents the current and ever use of tobacco products by women age 15-49 years. In Bungoma County MICS, ever use of any tobacco products among women is two percent, while less than one percent smoked cigarettes, or used smoked or smokeless tobacco products on one or more days during the last one month prior to the survey.

¹²¹ WHO. <http://www.who.int/topics/tobacco/en/>

¹²² WHO. http://www.who.int/topics/alcohol_drinking/en/

¹²³ WHO. <http://www.who.int/mediacentre/factsheets/fs349/en/>

¹²⁴ WHO. 2012. Joint national capacity assessment on the implementation of effective tobacco control policies in Kenya.

¹²⁵ WHO. 2005. Framework Convention on Tobacco Control

Table TA.1: Current and ever use of tobacco (women)

Percentage of women age 15-49 years by pattern of use of tobacco, Bungoma County MICS, 2013/14

	Never smoked cigarettes or used other tobacco products	Ever users				Users of tobacco products at any time during the last one month				Number of women age 15-49 years
		Only cigarettes	Cigarettes and other tobacco products	Only other tobacco products	Any tobacco product	Only cigarettes	Cigarettes and other tobacco products	Only other tobacco products	Any tobacco product ¹	
Total	98.0	0.8	0.5	0.5	1.8	0.0	0.0	0.3	0.3	1,213
Age										
15-19	98.4	0.1	0.0	1.4	1.6	0.0	0.0	0.4	0.4	296
20-24	98.5	0.9	0.0	0.3	1.2	0.0	0.0	0.0	0.0	191
25-29	99.1	0.4	0.0	0.5	0.9	0.0	0.0	0.0	0.0	222
30-34	97.9	0.0	2.1	0.0	2.1	0.0	0.0	0.0	0.0	161
35-39	97.2	2.8	0.0	0.0	2.8	0.0	0.0	0.0	0.0	142
40-44	93.5	1.8	2.8	0.0	4.6	0.0	0.0	2.8	2.8	110
45-49	99.3	0.7	0.0	0.0	0.7	0.0	0.0	0.0	0.0	92
Area										
Urban	98.9	0.7	0.0	0.3	1.0	0.0	0.0	0.2	0.2	563
Rural	97.1	0.9	1.0	0.7	2.5	0.0	0.0	0.5	0.5	650
Education										
None	(88.0)	(0.0)	(12.0)	(0.0)	(12.0)	(0.0)	(0.0)	(0.0)	(0.0)	28
Primary	97.8	0.9	0.5	0.6	2.0	0.0	0.0	0.5	0.5	662
Secondary+	98.7	0.6	0.0	0.4	1.0	0.0	0.0	0.2	0.2	522
Under-5s in the same household										
At least one	97.8	1.0	0.4	0.6	2.0	0.0	0.0	0.4	0.4	756
None	98.3	0.4	0.7	0.3	1.5	0.0	0.0	0.2	0.2	457
Wealth index quintile										
Poorest	99.6	0.4	0.0	0.0	0.4	0.0	0.0	0.0	0.0	197
Second	96.7	1.4	1.4	0.6	3.3	0.0	0.0	1.4	1.4	227
Middle	96.8	0.0	1.4	1.3	2.7	0.0	0.0	0.0	0.0	240
Fourth	98.3	0.9	0.0	0.4	1.3	0.0	0.0	0.4	0.4	263
Richest	98.5	1.1	0.0	0.2	1.3	0.0	0.0	0.0	0.0	285
Ethnicity of household head										
Luhya	98.0	0.7	0.6	0.5	1.8	0.0	0.0	0.4	0.4	1,086
Other ethnic group	98.1	1.4	0.0	0.4	1.9	0.0	0.0	0.0	0.0	127
¹ MICS indicator 12.1 - Tobacco use										
() Figures that are based on 25-49 unweighted cases										

Table TA.2 presents results on age at first use of cigarettes, as well as frequency of use, for women age 15-49 years. The results show that only about one woman age 15-49 years in a thousand smoked a cigarette for the first time before age 15. This implies that women in Bungoma County are likely not to smoke cigarettes before age 15.

Table TA.2: Age at first use of cigarettes and frequency of use (women)		
Percentage of women age 15-49 years who smoked a whole cigarette before age 15, and percent distribution of current smokers by the number of cigarettes smoked in the last 24 hours, Bungoma County MICS, 2013/14		
	Percentage of women who smoked a whole cigarette before age 15 ¹	Number of women age 15-49 years
Total	0.1	1,213
Age		
15-19	0.0	296
20-24	0.0	191
25-29	0.4	222
30-34	0.0	161
35-39	0.6	142
40-44	0.0	110
45-49	0.0	92
Area		
Urban	0.1	563
Rural	0.1	650
Education		
None	(0.0)	28
Primary	0.1	662
Secondary+	0.2	522
Under-5s in the same household		
At least one	0.2	756
None	0.0	457
Wealth index quintile		
Poorest	0.4	197
Second	0.0	227
Middle	0.0	240
Fourth	0.0	263
Richest	0.3	285
Ethnicity of household head		
Luhya	0.1	1,086
Other ethnic group	0.6	127
¹ MICS indicator 12.2 - Smoking before age 15		
() Figures that are based on 25-49 unweighted cases		

14.2 Alcohol Use

Table TA.3 shows the use of alcohol among women. In Bungoma County, about 11 percent of women age 15-49 years had at least one drink of alcohol on one or more days during the last one month preceding the survey while eight percent have had at least one alcoholic drink before the age of 15 years. The proportion who had an alcoholic drink in the last month preceding the survey ranged between five percent and 19 percent by age while for women who had at least one alcoholic drink before age 15 was between six percent and 12 percent, with no clear pattern from one age group to the other. Alcohol use was more common in rural areas than urban areas. Women age 15-49 years in

rural areas (12 percent) are more likely to have had at least one alcoholic drink before age 15 than those who reside in urban areas (3 percent). Similarly, women in rural areas (13 percent) are as more likely than those in urban areas (8 percent) to have had at least one alcoholic drink at any time during the last one month preceding the survey.

Table TA.3: Use of alcohol (women)				
Percentage of women age 15-49 years who have never had an alcoholic drink, percentage who first had an alcoholic drink before age 15, and percentage of women who have had at least one alcoholic drink at any time during the last one month, Bungoma County MICS, 2013/14				
	Percentage of women who:			Number of women age 15-49 years
	Never had an alcoholic drink	Had at least one alcoholic drink before age 15 ¹	Had at least one alcoholic drink at any time during the last one month ²	
Total	75.1	7.7	10.5	1,213
Age				
15-19	90.1	6.2	5.2	296
20-24	78.6	8.4	12.1	191
25-29	72.5	6.0	9.4	222
30-34	64.3	11.0	12.7	161
35-39	72.6	5.9	11.1	142
40-44	57.3	12.2	19.3	110
45-49	69.6	6.8	12.0	92
Area				
Urban	79.4	2.9	7.7	563
Rural	71.4	11.8	13.0	650
Education				
None	(49.9)	(2.2)	(16.5)	28
Primary	71.6	9.1	12.4	662
Secondary+	80.9	6.1	7.8	522
Wealth index quintile				
Poorest	80.0	8.7	7.9	197
Second	70.4	10.7	12.5	227
Middle	73.7	7.3	8.5	240
Fourth	73.7	6.3	14.1	263
Richest	77.8	6.2	9.2	285
Ethnicity of household head				
Luhya	75.0	8.0	10.7	1,086
Other ethnic group	75.8	5.4	9.3	127
¹ MICS indicator 12.4 - Use of alcohol before age 15				
² MICS indicator 12.3 - Use of alcohol				
() Figures that are based on 25-49 unweighted cases				

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Appendix B. Education ISCED Tables

Table ED.4: Primary school attendance and out of school children (ISCED)

Percentage of children of primary school age attending primary or secondary school (adjusted net attendance ratio), percentage attending preschool, and percentage out of school, Bungoma County MICS, 2013/14

	Male					Female					Total				
	Percentage of children:					Percentage of children:					Percentage of children:				
	Net attendance ratio (adjusted)	Not attending school or preschool	Attending preschool	Out of school ^a	Number of children	Net attendance ratio (adjusted)	Not attending school or preschool	Attending preschool	Out of school ^a	Number of children	Net attendance ratio (adjusted) ¹	Not attending school or preschool	Attending preschool	Out of school ^a	Number of children
Total	89.4	1.3	8.2	9.5	541	88.8	4.1	6.3	10.4	593	89.1	2.8	7.2	10.0	1,134
Area															
Urban	91.5	0.2	8.3	8.5	223	94.1	2.2	3.7	5.9	245	92.9	1.3	5.9	7.1	468
Rural	87.9	2.1	8.1	10.2	318	85.1	5.4	8.2	13.6	348	86.4	3.8	8.2	12.0	666
Age at beginning of school year															
6	66.6	2.3	31.1	33.4	105	73.1	8.0	17.4	25.3	98	69.7	5.0	24.5	29.5	203
7	90.0	1.6	5.3	6.9	80	81.3	7.9	10.8	18.7	97	85.2	5.1	8.3	13.4	177
8	92.4	1.0	3.7	4.8	121	91.4	4.1	4.4	8.6	105	91.9	2.5	4.1	6.5	226
9	100.0	0.0	0.0	0.0	72	92.3	2.3	2.9	5.1	124	95.2	1.4	1.8	3.2	196
10	95.5	2.9	1.6	4.5	78	97.9	0.8	1.3	2.1	95	96.8	1.7	1.4	3.2	173
11	98.3	0.0	1.7	1.7	85	98.1	1.0	0.9	1.9	73	98.2	0.5	1.3	1.8	159
Mother's education															
None	(77.9)	(4.5)	(14.2)	(18.8)	38	85.3	3.7	5.0	8.7	58	82.4	4.0	8.7	12.7	95
Primary	88.6	1.4	9.7	11.1	333	85.1	5.1	9.5	14.5	346	86.8	3.3	9.6	12.8	680
Secondary+	93.6	0.6	3.8	4.4	170	96.6	2.4	1.0	3.4	187	95.2	1.5	2.4	3.9	357
Cannot be determined	-	-	-	-	0	(*)	(*)	(*)	(*)	2	(*)	(*)	(*)	(*)	2
Wealth index quintile															

Poorest	81.4	3.8	14.8	18.6	114	80.6	8.4	11.0	19.4	146	80.9	6.4	12.7	19.1	260
Second	91.5	1.2	7.3	8.5	104	89.2	6.5	4.2	10.8	128	90.3	4.1	5.6	9.7	232
Middle	87.3	0.6	12.1	12.7	121	88.3	1.5	8.0	9.5	103	87.8	1.0	10.2	11.2	224
Fourth	91.3	0.9	3.6	4.5	111	93.0	0.6	5.5	6.1	133	92.2	0.7	4.7	5.4	244
Richest	97.3	0.0	1.3	1.3	93	96.5	1.4	0.5	2.0	82	96.9	0.7	1.0	1.6	175
Ethnicity of household head															
Luhya	89.2	1.3	8.2	9.6	502	88.3	4.4	6.4	10.8	545	88.8	2.9	7.3	10.2	1,047
Other ethnic group	91.4	1.3	7.3	8.6	39	94.3	0.0	5.7	5.7	47	93.0	9.6	6.4	7.0	87

¹ MICS indicator 7.4; MDG indicator 2.1 - Primary school net attendance ratio (adjusted)

^a The percentage of children of primary school age out of school are those not attending school and those attending preschool

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

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

Table ED.5: Secondary school attendance and out of school children (ISCED)

Percentage of children of secondary school age attending secondary school or higher (adjusted net attendance ratio), percentage attending primary school, and percentage out of school, Bungoma County MICS, 2013/14

	Male				Female				Total			
	Percentage of children:				Percentage of children:				Percentage of children:			
	Net attendance ratio (adjusted)	Attending primary school	Out of school ^a	Number of children	Net attendance ratio (adjusted)	Attending primary school	Out of school ^a	Number of children	Net attendance ratio (adjusted) ¹	Attending primary school	Out of school ^a	Number of children
Total	51.6	39.0	8.8	426	62.7	26.5	9.9	482	57.5	32.3	9.3	908
Area												
Urban	58.0	31.0	10.7	184	69.7	18.6	11.7	206	64.2	24.4	11.2	390
Rural	46.7	45.0	7.3	243	57.5	32.4	8.5	275	52.5	38.3	7.9	518
Age at beginning of school year												
12	18.4	74.6	4.4	94	37.0	60.6	2.4	105	28.2	67.2	3.4	200
13	40.7	54.0	5.3	81	60.7	32.6	6.7	81	50.7	43.3	6.0	163
14	54.7	37.6	7.7	69	66.6	25.1	5.8	99	61.7	30.3	6.6	167
15	70.4	22.4	7.3	82	76.8	9.0	14.2	62	73.1	16.6	10.2	144
16	80.7	7.0	12.3	55	79.6	6.2	11.8	81	80.1	6.5	12.0	136
17	66.0	8.3	24.6	44	67.7	3.5	28.7	54	67.0	5.6	26.9	98
Mother's education												
None	(37.6)	(54.5)	(7.9)	28	(33.3)	(55.4)	(11.3)	26	35.6	54.9	9.5	55
Primary	39.3	55.1	4.2	189	57.8	37.2	3.9	212	49.1	45.6	4.1	401
Secondary+	67.4	25.9	6.6	113	72.2	18.0	9.8	121	69.9	21.9	8.3	233
Cannot be determined ^b	61.2	18.0	20.3	96	68.2	10.2	20.0	122	65.1	13.6	20.2	218
Wealth index quintile												
Poorest	28.8	62.0	9.2	90	50.2	40.3	9.5	63	37.6	53.1	9.3	154
Second	37.5	52.8	9.7	87	47.8	42.1	8.9	101	43.0	47.1	9.3	188
Middle	53.9	39.7	6.3	90	56.1	35.7	8.2	118	55.2	37.4	7.4	208
Fourth	65.9	22.9	7.8	85	75.6	14.0	9.0	91	70.9	18.3	8.4	176

Richest	76.8	12.0	11.2	74	80.4	4.4	13.5	108	78.9	7.4	12.6	182
Ethnicity of household head												
Luhya	50.4	40.6	8.3	392	62.1	27.3	9.6	441	56.6	33.5	9.0	833
Other ethnic group	64.9	20.5	14.6	34	69.6	18.0	12.4	40	67.5	19.1	13.4	74

¹ MICS indicator 7.5 - Secondary school net attendance ratio (adjusted)

^a The percentage of children of secondary school age out of school are those who are not attending primary, secondary, or higher education

^b Children age 15 or higher at the time of the interview whose mothers were not living in the household

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

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

Primary school completion rates and transition and effective transition rates to secondary school, Bungoma County MICS, 2013/14

	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	Effective transition rate to secondary school	Number of children who were in the last grade of primary school the previous year and are not repeating that grade in the current school year
Total	132.2	159	94.4	252	98.9	240
Sex						
Male	113.9	85	92.7	118	98.1	112
Female	153.5	73	95.9	134	99.6	129
Area						
Urban	165.9	54	97.5	112	98.6	111
Rural	115.0	105	91.9	140	99.0	130
¹ MICS indicator 7.7 - Primary completion rate						
² MICS indicator 7.8 - Transition rate to secondary school						

Table ED.8: Education gender parity (ISCED)						
Ratio of adjusted net attendance ratios of girls to boys, in primary and secondary school, Bungoma County MICS, 2013/14						
	Primary school			Secondary school		
	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
Total	88.8	89.4	0.99	62.7	51.6	1.22
Area						
Urban	94.1	91.5	1.03	69.7	58.0	1.20
Rural	85.1	87.9	0.97	57.5	46.7	1.23
Mother's education						
None	85.3	(77.9)	1.10	(33.3)	(37.6)	0.89
Primary	85.1	88.6	0.96	57.8	39.3	1.47
Secondary	96.6	93.6	1.03	72.2	67.4	1.07
Cannot be determined ^a	(*)	-	-	68.2	61.2	1.11
Wealth index quintile						
Poorest	80.6	81.4	0.99	50.2	28.8	1.75
Second	89.2	91.5	0.98	47.8	37.5	1.28
Middle	88.3	87.3	1.01	56.1	53.9	1.04
Fourth	93.0	91.3	1.02	75.6	65.9	1.15
Richest	96.5	97.3	0.99	80.4	76.8	1.05
Ethnicity of household head						
Luhya	88.3	89.2	0.99	62.1	50.4	1.23
Other ethnic group	94.3	91.4	1.03	69.6	64.9	1.07
¹ MICS indicator 7.9; MDG indicator 3.1 - Gender parity index (primary school)						
² MICS indicator 7.10; MDG indicator 3.1 - Gender parity index (secondary school)						
^a Children age 15 or higher at the time of the interview whose mothers were not living in the household						
na: not applicable						
() Figures that are based on 25-49 unweighted cases						
(*) Figures that are based on fewer than 25 unweighted cases						

Table ED.9: Out of school gender parity

Percentage of girls in the total out of school population, in primary and secondary school, Bungoma County MICS, 2013/14

	Primary school				Secondary school			
	Percentage of out of school children	Number of children of primary school age	Percentage of girls in the total out of school population of primary school age	Number of children of primary school age out of school	Percentage of out of school children	Number of children of secondary school age	Percentage of girls in the total out of school population of secondary school age	Number of children of secondary school age out of school
Total	10.0	1,134	54.6	113	9.3	908	56.0	85
Area								
Urban	7.1	468	(*)	33	11.2	390	(55.0)	44
Rural	12.0	666	59.3	80	7.9	518	(57.1)	41
Mother's education								
None	12.7	95	(*)	12	9.5	55	(*)	5
Primary	12.8	680	57.7	87	4.1	401	(*)	16
Secondary+	3.9	357	(*)	14	8.3	233	(*)	19
Cannot be determined ^a	(*)	2	na	na	20.2	218	(55.5)	44
Wealth index quintile								
Poorest	19.1	260	(57.3)	50	9.3	154	(*)	14
Second	9.7	232	(61.1)	23	9.3	188	(*)	17
Middle	11.2	224	(*)	25	7.4	208	(*)	15
Fourth	5.4	244	(*)	13	8.4	176	(*)	15
Richest	1.6	175	(*)	3	12.6	182	(*)	23
Ethnicity of household head								
Luhya	10.2	1,047	55.2	107	9.0	833	56.8	75
Other ethnic group	7.0	87	(*)	6	13.4	74	(*)	10
^a Children age 15 or higher at the time of the interview whose mothers were not living in the household								
na: not applicable								
() Figures that are based on 25-49 unweighted cases								

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

Appendix C. Sample Design

The major features of the sample design are described in this appendix. Sample design features include 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 Bungoma County MICS was to produce statistically reliable estimates of indicators, at county level. The urban and rural areas in Bungoma County were the sampling strata. A multi-stage, stratified cluster sampling approach was used for the selection of the survey sample.

Sample Size and Sample Allocation

The sample size for the Bungoma County MICS was calculated as 1,500 households. For the calculation of the sample size, the key indicator used was the basic immunization for children aged 12-23 months. The following formula was used to estimate the required sample size for this indicator:

$$n = \frac{[4(r)(1-r)(deff)]}{[(0.12r)^2(pb)(AveSize)(RR)]}$$

where

n is the required sample size, expressed as number of households

4 is a factor to achieve the 95 percent level of confidence

r is the predicted or anticipated value of the indicator, expressed in the form of a proportion

$deff$ is the design effect for the indicator, estimated from a previous survey or using a default value of 1.5

$0.12r$ is the margin of error to be tolerated at the 95 percent level of confidence, defined as 12 percent of r (relative margin of error of r)

pb is the proportion of the total population upon which the indicator, r , is based

$AveSize$ is the average household size (number of persons per household)

RR is the predicted response rate

For the calculation, r (basic immunization for children aged 12-23 months) was assumed to be 73.1 percent as per the 2008-09 KDHS. The value of $deff$ (design effect) was taken as 1.5 based on estimates from previous surveys, pb (percentage of children aged 12-23 months in Bungoma County) was taken as 3.3 percent, $AveSize$ (average household size in Bungoma County) was taken as 4.8. Both pb and $AveSize$ were based on the results from the 2009 Kenya Population and Housing Census. The margin of error to be tolerated at the 95 percent level of confidence was fixed at $0.1r$ and the response rate was assumed to be 90 percent based on experience from previous surveys.

The resulting number of households from this exercise was 1,500 households which is the sample size for Bungoma County. The number of households selected per cluster was 30 households, and was based on a number of considerations, including design effect, the budget available, and the time that would be needed per team to complete one cluster. By dividing the total number of households by the number of sample households per cluster, it was determined that 50 clusters be sampled in the county.

Power allocation method was used to allocate the sample to the urban and rural strata of Bungoma County. The table below shows the distribution of sampled households and clusters in the sampling strata.

	Number of Households			Number of Clusters		
	Total	Urban	Rural	Total	Urban	Rural
Total	1,500	780	720	50	26	24

Sampling Frame and Selection of Clusters

MICS5 utilized the recently created fifth National Sample Survey and Evaluation Programme (NASSEP V) frame which is a household based master sampling frame developed and maintained by KNBS. The frame was implemented using a multi-tiered structure, in which a set of 4 sub-samples (C1, C2, C3, C4) were developed. It is based on the list of enumeration areas (EAs) from the 2009 Kenya Population and Housing Census. The frame is stratified according to County and further into rural and urban. Each of the sub-samples is representative at county level and at national (i.e. Urban/rural) level and contains 1,340 clusters.

The Primary Sampling Units (PSUs) for the survey were clusters drawn from the NASSEP V sampling frame, so the first component of the probabilities and weights are based on that master sample. Within each stratum the PSUs for the MICS were selected independently from one of the subsamples of the master sample using Equal Probability Selection Method (EPSEM). A total of 50 clusters were selected from the master sample in this way.

Cluster Updating Activities

Out of the 50 sample clusters selected for Bungoma County, it was established that 30 had been listed more than six months prior to the start of the survey. These listing for these clusters was updated prior to selection of households. For this purpose, listing teams visited each cluster, and listed all occupied households. For the remaining 20 sample clusters a more recent listing was available, so it was used for selecting the sample households.

Selection of Households

A uniform sample of 30 households per cluster was selected using equal probability systematic sampling method. Non responding households were not replaced. Systematic sampling is a probability sample selection method in which the sample is obtained by selecting every k th element of the population where k is an integer greater than 1. The first number of the sample is selected randomly from within the first k elements.

Calculation of Sample Weights

The MICS5 sample was not self-weighting and thus a weighting process was required to provide estimates representative of the target population. Two main sampling weights were calculated: household weights and individual (women and children) weights. The base weights incorporated the probabilities of selection of the clusters from the census EAs database into the NASSEP V sample frame, the probabilities of selection of the MICS clusters from NASSEP V frame and the probabilities of selection of the households from each of the NASSEP V frame clusters. Base weights were then adjusted for cluster and household non-response by multiplying them by the inverse of the clusters and households response rates. The individual weight of a woman or child was calculated as the household weight multiplied by the inverse of the individual response rate. Given that the MICS5 sample was a two-stage stratified cluster sample, sampling probabilities were calculated separately for each sampling stage. We will use the following notations:

P_{0hi} : sampling probability of the i^{th} EA in stratum h in the selection of the master sample from the 2009 census frame

P_{1hi} : first stage sampling probability of the i^{th} cluster in stratum h

P_{2hi} : second-stage sampling probability within the i^{th} cluster (households)

P_{hi} : overall sampling probability of any households of the i^{th} cluster in stratum h

For the NASSEP V master sample, EAs within each stratum were selected using a systematic probability proportional to size (PPS) sampling procedure. Let a_h be the number of EAs selected in stratum h , M_{hi} the measure of size (number of households) according to the 2009 census frame in the i^{th} EA, and $\sum M_{hi}$ the total measure of size (total number of households) in the stratum h . The probability of selecting the i^{th} EA in the NASSEP V master sample is calculated as follows:

$$P_{0hi} = \frac{a_h M_{hi}}{\sum M_{hi}}$$

Let b_h be the total number of clusters in stratum h of the NASSEP V master sample for the MICS5 and s_i the total number of segments created during listing of the i^{th} cluster. The probability of selecting the i^{th} cluster in stratum h from the NASSEP V frame is calculated as follows:

$$P_{1hi} = \frac{a_h}{b_h} \times \frac{1}{s_i}$$

Let L_{hi} be the number of households listed in the household listing operation in cluster i in stratum h , let g_{hi} be the number of households selected in the cluster. The second stage selection probability for each household in the cluster is calculated as follows:

$$P_{2hi} = \frac{g_{hi}}{L_{hi}}$$

The overall selection probability of each household in cluster i of stratum h is the product of the selection probabilities:

$$P_{hi} = P_{0hi} \times P_{1hi} \times P_{2hi}$$

The sampling weight for each household in cluster i of stratum h is the inverse of its selection probability:

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

The individual weight of children or Women (W_{ii}) in cluster i is the household weight multiplied by the inverse of the individual response rate;

$$W_{ii} = W_{hi} \times \frac{E_{hi}}{I_{hi}},$$

Where, E_{hi} is the total eligible individuals (women or children) found in the i^{th} cluster of stratum h and I_{hi} is the total number of Individuals (women or children) with a successful interview.

After the completion of fieldwork, response rates were calculated for each cluster. These were used to adjust the sample weights calculated for each cluster. Response rates in the Bungoma County MICS are shown in Table HH.1 in this report.

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

The design weights for the households were calculated by multiplying the inverse of the probabilities of selection by the non-response adjustment factor for each cluster. These weights were then standardized (or normalized), one purpose of which is to make the weighted sum of the interviewed sample units equal to the unweighted total number of observations at the national level. Normalization is achieved by dividing the full sample weights (adjusted for nonresponse) by the average of these weights across all households at the national level. This is performed by multiplying the sample weights by a constant factor equal to the unweighted number of households at the national level divided by the weighted total number of households (using the full sample weights adjusted for nonresponse). A similar standardization procedure was followed in obtaining standardized weights for the individual women and under-5 questionnaires.

Sample weights were appended to all data sets and analyses were performed by weighting households, women or under-5s with these normalized sample weights.

Appendix D. Estimates of Sampling Errors

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

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

Standard error (se): Standard error is the square root of the variance of the estimate. For survey indicators that are means, proportions or ratios, the Taylor series linearization method is used for the estimation of standard errors. For more complex statistics, such as fertility and mortality rates, the Jackknife repeated replication method is used for standard error estimation.

Coefficient of variation (se/r) is the ratio of the standard error to the value (r) 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 based on the same sample size. 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 of the survey is as efficient as a simple random sample for a particular indicator, while a *deft* value above 1.0 indicates an increase in the standard error due to the use of a more complex sample design.

Confidence limits are calculated to show the interval within which the true value for the population can be reasonably assumed to fall, with a specified level of confidence. For any given statistic calculated from the survey, the value of that statistic will fall within a range of plus or minus two times the standard error ($r + 2.se$ or $r - 2.se$) of the statistic in 95 percent of all possible samples of identical size and design.

For the calculation of sampling errors from the MICS data, programs developed in CPro Version 5.0, SPSS Version 21 Complex Samples module and CMRJack¹²⁶ have 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. Given the use of normalized weights, by comparing the weighted and unweighted counts it is possible to determine whether a particular domain has been under-sampled or over-sampled compared to the average sampling rate. If the weighted count is smaller than the unweighted count, this means that the particular domain had been over-sampled. As explained later in the footnote of Table SE.1, there

¹²⁶ CMRJack is a software developed by FAFO, an independent and multidisciplinary research foundation. CMRJack produces mortality estimates and standard errors for surveys with complete birth histories or summary birth histories. See http://www.fafono.org/ais/child_mortality/index.html

is an exception in the case of indicators 4.1 and 4.3, for which the unweighted count represents the number of sample households, and the weighted counts reflect the total population.

Sampling errors are calculated for indicators of primary interest, for the county level, and for urban and rural areas within Bungoma County. Three of the selected indicators are based on household members, eight are based on women, and two are based on children under-5 years. Table SE.1 shows the list of indicators for which sampling errors are calculated, including the base population (denominator) for each indicator. Tables SE.2 to SE.4 show the calculated sampling errors for selected domains.

Table SE.1: Indicators selected for sampling error calculations

List of indicators selected for sampling error calculations, and base populations (denominators) for each indicator, Bungoma County MICS, 2013/14

MICS5 Indicator	Base Population
Household members	
4.1 Use of improved drinking water sources	All household members ^a
4.3 Use of improved sanitation	All household members ^a
7.4 Primary school net attendance ratio (adjusted)	Children of primary school age
Women	
5.3 Contraceptive prevalence rate	Women age 15-49 years who are currently married or in union
5.4 Unmet need	Women age 15-49 years who are currently married or in union
5.5a Antenatal care coverage (1+ times, skilled provider)	Women age 15-49 years with a live birth in the last 2 years
5.5b Antenatal care coverage (4+ times, any provider)	Women age 15-49 years with a live birth in the last 2 years
5.7 Skilled attendant at delivery	Women age 15-49 years with a live birth in the last 2 years
7.1 Literacy rate (young women)	Women age 15-24 years
9.1 Knowledge about HIV prevention (young women)	Women age 15-24 years
9.15 Condom use with non-regular partners	Women age 15-24 years who had a non-marital, non-cohabiting partner in the last 12 months
Under-5s	
3.18 Children under age 5 who slept under an ITN	Children under age 5 years who spent the previous night in the household
3.22 Anti-malarial treatment of children under age 5	Children under age 5 years with fever in the last 2 weeks
^a To calculate the weighted results of MICS Indicators 4.1 and 4.3, the household weight is multiplied by the number of household members in each household. Therefore the unweighted base population presented in the SE tables reflect the unweighted number of households, whereas the weighted numbers reflect the household population.	

Table SE.2: Sampling errors: Total sampleStandard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected indicators, Bungoma County MICS, 2013/14

	MICS Indicator	MDG Indicator	Value (<i>r</i>)	Standard error (<i>se</i>)	Coefficient of variation (<i>se/r</i>)	Design effect (<i>deff</i>)	Square root of design effect (<i>deft</i>)	Weighted count	Unweighted count	Confidence limits	
										Lower bound $r - 2se$	Upper bound $r + 2se$
Household members											
Use of improved drinking water sources	4.1	7.8	0.867	0.0293	0.034	9.249	3.041	5,983	1,246	0.808	0.925
Use of improved sanitation	4.3	7.9	0.497	0.0491	0.099	11.992	3.463	5,983	1,246	0.399	0.595
Primary school net attendance ratio (adjusted)	7.4	2.1	0.907	0.0096	0.011	1.633	1.278	1,496	1,483	0.888	0.927
Women											
Unmet need	5.4	5.6	0.225	0.0199	0.088	1.584	1.259	694	698	0.185	0.265
Antenatal care coverage (1+ times, skilled provider)	5.5a	5.5	0.913	0.0221	0.024	1.853	1.361	311	304	0.869	0.957
Antenatal care coverage (4+ times, any provider)	5.5b	5.5	0.504	0.0319	0.063	1.231	1.110	311	304	0.440	0.567
Skilled attendant at delivery	5.7	5.2	0.495	0.0418	0.084	2.114	1.454	311	304	0.412	0.579
Literacy rate (young women)	7.1	2.3	0.851	0.0186	0.022	1.316	1.147	487	483	0.814	0.888
Knowledge about HIV prevention (young women)	9.1	6.3	0.475	0.0290	0.061	1.628	1.276	487	483	0.417	0.533
Condom use with non-regular partners	9.15	6.2	0.551	0.0572	0.104	0.900	0.949	67	69	0.437	0.666
Under-5s											
Children under age 5 who slept under an ITN	3.18	6.7	0.629	0.0343	0.055	4.215	2.053	837	836	0.561	0.698
Anti-malarial treatment of children under age 5	3.22	6.8	0.458	0.0434	0.095	1.283	1.133	168	170	0.371	0.545
na: not applicable											

Table SE.3: Sampling errors: UrbanStandard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deff*), and confidence intervals for selected indicators, Bungoma County MICS, 2013/14

	MICS Indicator	MDG Indicator	Value (<i>r</i>)	Standard error (<i>se</i>)	Coefficient of variation (<i>se/r</i>)	Design effect (<i>deff</i>)	Square root of design effect (<i>deff</i>)	Weighted count	Unweighted count	Confidence limits	
										Lower bound <i>r</i> - 2 <i>se</i>	Upper bound <i>r</i> + 2 <i>se</i>
Household members											
Use of improved drinking water sources	4.1	7.8	0.957	0.0131	0.014	2.579	1.606	2,697	623	0.931	0.983
Use of improved sanitation	4.3	7.9	0.574	0.0749	0.130	14.259	3.776	2,697	623	0.424	0.724
Primary school net attendance ratio (adjusted)	7.4	2.1	0.931	0.0100	0.011	0.899	0.948	626	584	0.911	0.951
Women											
Contraceptive prevalence rate	5.3	5.3	0.540	0.0295	0.055	1.152	1.073	319	329	0.481	0.599
Unmet need	5.4	5.6	0.197	0.0361	0.184	2.714	1.647	319	329	0.124	0.269
Antenatal care coverage (1+ times, skilled provider)	5.5a	5.5	0.967	0.0152	0.016	1.031	1.015	137	146	0.936	0.997
Antenatal care coverage (4+ times, any provider)	5.5b	5.5	0.555	0.0404	0.073	0.960	0.980	137	146	0.474	0.636
Skilled attendant at delivery	5.7	5.2	0.629	0.0550	0.087	1.881	1.372	137	146	0.519	0.739
Literacy rate (young women)	7.1	2.3	0.879	0.0222	0.025	1.012	1.006	228	220	0.834	0.923
Knowledge about HIV prevention (young women)	9.1	6.3	0.506	0.0273	0.054	0.653	0.808	228	220	0.451	0.561
Condom use with non-regular partners	9.15	6.2	(0.538)	(0.1031)	(0.192)	(1.198)	(1.095)	24	29	(0.332)	(0.744)
Under-5s											
Children under age 5 who slept under an ITN	3.18	6.7	0.611	0.0337	0.055	1.759	1.326	372	369	0.543	0.678
Anti-malarial treatment of children under age 5	3.22	6.8	0.343	0.0616	0.180	0.993	0.997	53	60	0.220	0.466

na: not applicable

Table SE.4: Sampling errors: RuralStandard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deff*), and confidence intervals for selected indicators, Bungoma County MICS, 2013/14

	MICS Indicator	MDG Indicator	Value (<i>r</i>)	Standard error (<i>se</i>)	Coefficient of variation (<i>se/r</i>)	Design effect (<i>deff</i>)	Square root of design effect (<i>deff</i>)	Weighted count	Unweighted count	Confidence limits	
										Lower bound <i>r</i> - 2 <i>se</i>	Upper bound <i>r</i> + 2 <i>se</i>
Household members											
Use of improved drinking water sources	4.1	7.8	0.793	0.0456	0.058	7.895	2.810	3,286	623	0.702	0.884
Use of improved sanitation	4.3	7.9	0.434	0.0568	0.131	8.156	2.856	3,286	623	0.320	0.547
Primary school net attendance ratio (adjusted)	7.4	2.1	0.890	0.0132	0.015	1.606	1.267	870	899	0.864	0.917
Women											
Contraceptive prevalence rate	5.3	5.3	0.547	0.0208	0.038	0.645	0.803	376	369	0.505	0.589
Unmet need	5.4	5.6	0.250	0.0168	0.067	0.556	0.746	376	369	0.216	0.283
Antenatal care coverage (1+ times, skilled provider)	5.5a	5.5	0.870	0.0326	0.037	1.479	1.216	174	158	0.805	0.935
Antenatal care coverage (4+ times, any provider)	5.5b	5.5	0.463	0.0465	0.100	1.362	1.167	174	158	0.370	0.556
Skilled attendant at delivery	5.7	5.2	0.390	0.0480	0.123	1.518	1.232	174	158	0.294	0.486
Literacy rate (young women)	7.1	2.3	0.827	0.0258	0.031	1.220	1.105	259	263	0.775	0.878
Knowledge about HIV prevention (young women)	9.1	6.3	0.447	0.0466	0.104	2.304	1.518	259	263	0.354	0.541
Condom use with non-regular partners	9.15	6.2	(0.559)	(0.0668)	(0.120)	(0.705)	(0.840)	43	40	(0.425)	(0.692)
Under-5s											
Children under age 5 who slept under an ITN	3.18	6.7	0.645	0.0525	0.081	5.603	2.367	465	467	0.540	0.749
Anti-malarial treatment of children under age 5	3.22	6.8	0.511	0.0431	0.084	0.809	0.899	115	110	0.425	0.597

na: not applicable

Appendix E. List of Personnel Involved in the Survey

Survey Management Team

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Appendix F. Data Quality Tables

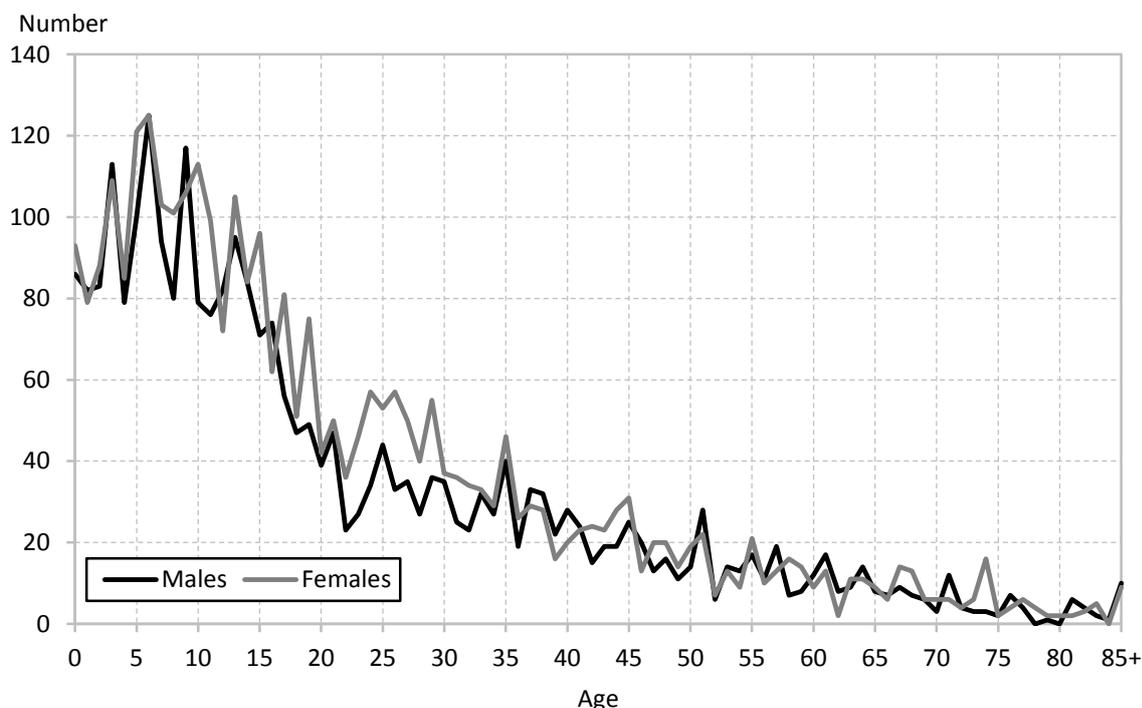
Table DQ.1: Age distribution of household population

Single-year age distribution of household population by sex, Bungoma County MICS, 2013/14

	Males		Females		Age	Males		Females	
	Number	Percent	Number	Percent		Number	Percent	Number	Percent
Age					Age				
0	86	3.1	93	2.9	45	25	0.9	31	1.0
1	82	2.9	79	2.5	46	20	0.7	13	0.4
2	83	3.0	88	2.8	47	13	0.5	20	0.6
3	113	4.1	109	3.4	48	16	0.6	20	0.6
4	79	2.8	85	2.7	49	11	0.4	14	0.5
5	100	3.6	121	3.8	50	14	0.5	19	0.6
6	125	4.5	125	3.9	51	28	1.0	22	0.7
7	94	3.4	103	3.2	52	6	0.2	7	0.2
8	80	2.9	101	3.2	53	14	0.5	13	0.4
9	117	4.2	106	3.3	54	13	0.5	9	0.3
10	79	2.8	113	3.6	55	17	0.6	21	0.7
11	76	2.7	99	3.1	56	11	0.4	10	0.3
12	82	2.9	72	2.3	57	19	0.7	13	0.4
13	95	3.4	105	3.3	58	7	0.2	16	0.5
14	84	3.0	84	2.6	59	8	0.3	14	0.4
15	71	2.5	96	3.0	60	12	0.4	9	0.3
16	74	2.7	62	1.9	61	17	0.6	13	0.4
17	56	2.0	81	2.5	62	8	0.3	2	0.1
18	47	1.7	51	1.6	63	9	0.3	11	0.3
19	49	1.7	75	2.4	64	14	0.5	11	0.3
20	39	1.4	42	1.3	65	8	0.3	9	0.3
21	47	1.7	50	1.6	66	7	0.2	6	0.2
22	23	0.8	36	1.1	67	9	0.3	14	0.4
23	27	0.9	46	1.4	68	7	0.3	13	0.4
24	34	1.2	57	1.8	69	6	0.2	6	0.2
25	44	1.6	53	1.6	70	3	0.1	6	0.2
26	33	1.2	57	1.8	71	12	0.4	6	0.2
27	35	1.3	50	1.6	72	4	0.1	4	0.1
28	27	1.0	40	1.2	73	3	0.1	6	0.2
29	36	1.3	55	1.7	74	3	0.1	16	0.5
30	35	1.2	37	1.2	75	2	0.1	2	0.1
31	25	0.9	36	1.1	76	7	0.3	4	0.1
32	23	0.8	34	1.1	77	4	0.2	6	0.2
33	32	1.2	33	1.0	78	0	0.0	4	0.1
34	27	1.0	29	0.9	79	1	0.0	2	0.1
35	40	1.4	46	1.5	80	0	0.0	2	0.1
36	19	0.7	26	0.8	81	6	0.2	2	0.1
37	33	1.2	29	0.9	82	4	0.1	3	0.1
38	32	1.1	28	0.9	83	2	0.1	5	0.2
39	22	0.8	16	0.5	84	1	0.0	0	0.0
40	28	1.0	20	0.6	85+	10	0.3	9	0.3
41	24	0.9	23	0.7					
42	15	0.5	24	0.8	DK/Missing	0	0.0	1	0.0

43	19	0.7	23	0.7					
44	19	0.7	28	0.9	Total	2,797	100.0	3,186	100.0

Figure DQ.1: Household population by single ages, Bungoma County MICS, 2013/14



Note: The figure excludes 1 household members with unknown age and/or sex

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

Household population of women age 10-54 years, interviewed women age 15-49 years, and percentage of eligible women who were interviewed, by five-year age groups, Bungoma County MICS, 2013/14

Age	Household population of women age 10-54 years	Interviewed women age 15-49 years		Percentage of eligible women interviewed (Completion rate)
	Number	Number	Percent	
10-14	473	na	na	na
15-19	365	300	24.4	82.0
20-24	232	193	15.7	83.5
25-29	254	225	18.3	88.6
30-34	169	163	13.2	96.5
35-39	146	144	11.7	98.2
40-44	119	111	9.0	93.5
45-49	99	93	7.6	94.1
50-54	70	na	na	na

Total (15-49)	1,383	1,228	100.0	88.8
Ratio of 50-54 to 45-49	0.71			
na: not applicable				

Table DQ.4: Age distribution of children in household and under-5 questionnaires

Household population of children age 0-7 years, children age 0-4 years whose mothers/caretakers were interviewed, and percentage of under-5 children whose mothers/caretakers were interviewed, by single years of age, Bungoma County MICS, 2013/14

Age	<u>Household population of children 0-7 years</u>	<u>Under-5s with completed interviews</u>		Percentage of eligible under-5s with completed interviews (Completion rate)
	Number	Number	Percent	
0	179	176	20.2	98.3
1	162	154	17.7	95.5
2	171	168	19.3	98.3
3	223	219	25.2	98.3
4	164	154	17.7	94.0
5	222	na	na	na
6	250	na	na	na
7	197	na	na	na
Total (0-4)	898	872	100.0	97.0
Ratio of 5 to 4	1.35	na	na	na
na: not applicable				

Table DQ.5: Birth date reporting: Household population

Percent distribution of household population by completeness of date of birth information, Bungoma County MICS, 2013/14

	<u>Completeness of reporting of month and year of birth</u>				Total	Number of household members
	Year and month of birth	Year of birth only	Month of birth only	Both missing		
Total	86.1	13.2	0.0	0.7	100.0	5,983
Age						
0-4	98.4	1.1	0.0	0.5	100.0	898
5-14	92.1	7.1	0.0	0.8	100.0	1,964
15-24	90.0	9.5	0.0	0.5	100.0	1,064
25-49	79.3	19.8	0.2	0.7	100.0	1,440
50-64	62.8	36.4	0.0	0.8	100.0	387
65-84	53.6	46.4	0.0	0.0	100.0	210
85+	13.7	78.6	0.0	7.7	100.0	19
DK/Missing	100.0	0.0	0.0	0.0	100.0	1
Area						

Urban	87.2	12.2	0.1	0.6	100.0	2,697
Rural	85.2	14.0	0.0	0.8	100.0	3,286
na: not applicable						

Table DQ.6: Birth date and age reporting: Women							
Percent distribution of women age 15-49 years by completeness of date of birth/age information, Bungoma County MICS, 2013/14							
	Completeness of reporting of date of birth and age					Total	Number of women age 15-49 years
	Year and month of birth	Year of birth and age	Year of birth only	Age only	Other/DK/Missing		
Total	93.6	6.4	0.0	0.0	0.0	100.0	1,213
Area							
Urban	94.6	5.4	0.0	0.0	0.0	100.0	563
Rural	92.7	7.3	0.0	0.0	0.0	100.0	650

Table DQ.8: Birth date and age reporting: Under-5s							
Percent distribution children under 5 by completeness of date of birth/age information, Bungoma County MICS, 2013/14							
	Completeness of reporting of date of birth and age					Total	Number of under-5 children
	Year and month of birth	Year of birth and age	Year of birth only	Age only	Other/DK/Missing		
Total	98.3	1.7	0.0	0.0	0.0	100	846
Area							
Urban	99.2	0.8	0.0	0.0	0.0	100	376
Rural	97.6	2.4	0.0	0.0	0.0	100	470

Table DQ.9: Birth date reporting: Children, adolescents and young people						
Percent distribution of children, adolescents and young people age 5-24 years by completeness of date of birth information, Bungoma County MICS, 2013/14						
	Completeness of reporting of month and year of birth				Total	Number of children, adolescents and young people age 5-24 years
	Year and month of birth	Year of birth only	Month of birth only	Both missing		
Total	91.4	7.9	0.0	0.7	100	3,028
Area						
Urban	93.1	6.5	0.0	0.4	100	1,327
Rural	90.0	9.0	0.0	1.0	100	1,701

Table DQ.10: Birth date reporting: First and last births

Percent distribution of first and last births to women age 15-49 years by completeness of date of birth, Bungoma County MICS, 2013/14

	Completeness of reporting of date of birth										
	Date of first birth					Date of last birth					
	Year and month of birth	Year of birth only	Completed years since first birth only	Other/DK/ Missing	Total	Number of first births	Year and month of birth	Year of birth only	Other/DK/ Missing	Total	Number of last births
Total	97.9	2.1	0.0	0.1	100.0	861	99.5	0.5	0.0	100.0	703
Area											
Urban	98.9	1.1	0.0	0.0	100.0	393	99.6	0.4	0.0	100.0	315
Rural	96.9	2.9	0.0	0.1	100.0	467	99.4	0.6	0.0	100.0	388

Table DQ.11: Completeness of reporting

Percentage of observations that are missing information for selected questions and indicators, Bungoma County MICS, 2013/14

Questionnaire and type of missing information	Reference group	Percent with missing/incomplete information ^a	Number of cases
Household			
Salt test result	All households interviewed that have salt	0.4	1,246
Starting time of interview	All households interviewed	0.4	1,246
Ending time of interview	All households interviewed	0.0	1,246
Women			
Date of first marriage/union	All ever married women age 15-49		
Only month		10.4	809
Both month and year		0.6	809
Age at first marriage/union	All ever married women age 15-49 with year of first marriage not known	0.1	809
Age at first intercourse	All women age 15-24 who have ever had sex	0.3	243
Time since last intercourse	All women age 15-24 who have ever had sex	0.3	243
Starting time of interview	All women interviewed	0.0	1,213
Ending time of interview	All women interviewed	0.0	1,213
Under-5			
Starting time of interview	All under-5 children	0.2	846
Ending time of interview	All under-5 children	0.1	846

^a Includes "Don't know" responses

Table DQ.12: Completeness of information for anthropometric indicators: Underweight

Percent distribution of children under 5 by completeness of information on date of birth and weight, Bungoma County MICS, 2014/14

	Valid weight and date of birth	Reason for exclusion from analysis				Total	Percent of children excluded from analysis	Number of children under 5
		Weight not measured	Incomplete date of birth	Weight not measured and incomplete date of birth	Flagged cases (outliers)			
Total	93.0	5.2	1.6	0.1	0.2	100.0	7.0	846
Age								
<6 months	100.0	0.0	0.0	0.0	0.0	100.0	0.0	83
6-11 months	96.1	2.5	0.0	0.0	1.4	100.0	3.9	84
12-23 months	96.3	2.4	1.4	0.0	0.0	100.0	3.7	152
24-35 months	93.7	5.4	0.9	0.0	0.0	100.0	6.3	160
36-47 months	90.9	5.6	3.1	0.3	0.2	100.0	9.1	215
48-59 months	86.2	11.4	2.4	0.0	0.0	100.0	13.8	152

Table DQ.13: Completeness of information for anthropometric indicators: Stunting

Percent distribution of children under 5 by completeness of information on date of birth and length or height, Bungoma County MICS, 2013/14

	Valid length/height and date of birth	Reason for exclusion from analysis				Total	Percent of children excluded from analysis	Number of children under 5
		Length/Height not measured	Incomplete date of birth	Length/Height not measured, incomplete date of birth	Flagged cases (outliers)			
Total	92.1	4.2	1.7	0.0	2.0	100.0	7.9	846
Age								
<6 months	98.6	0.0	0.0	0.0	1.4	100.0	1.4	83
6-11 months	95.6	1.4	0.0	0.0	3.0	100.0	4.4	84
12-23 months	96.9	1.0	1.4	0.0	0.8	100.0	3.1	152
24-35 months	89.8	4.9	0.9	0.0	4.5	100.0	10.2	160
36-47 months	89.5	5.0	3.3	0.0	2.1	100.0	10.5	215
48-59 months	88.2	9.1	2.4	0.0	0.4	100.0	11.8	152

Table DQ.14: Completeness of information for anthropometric indicators: Wasting

Percent distribution of children under 5 by completeness of information on weight and length or height, Bungoma County MICS, 2013/14								
	Valid weight and length/height	Reason for exclusion from analysis				Total	Percent of children excluded from analysis	Number of children under 5
		Weight not measured	Length/Height not measured	Weight and length/height not measured	Flagged cases (outliers)			
Total	92.0	1.1	0.0	4.2	2.8	100.0	8.0	846
Age								
<6 months	92.1	0.0	0.0	0.0	7.9	100.0	7.9	83
6-11 months	91.7	1.1	0.0	1.4	5.8	100.0	8.3	84
12-23 months	95.6	1.4	0.0	1.0	2.0	100.0	4.4	152
24-35 months	90.5	0.6	0.0	4.9	4.1	100.0	9.5	160
36-47 months	93.2	0.8	0.0	5.0	1.0	100.0	6.8	215
48-59 months	88.2	2.3	0.0	9.1	0.4	100.0	11.8	152

Table DQ.15: Heaping in anthropometric measurements

Distribution of weight and height/length measurements by digits reported for the decimal points, Bungoma County MICS, 2013/14				
	Weight		Height or length	
	Number	Percent	Number	Percent
Total	802	100.0	811	100.0
Digits				
0	99	12.3	167	20.6
1	63	7.9	41	5.1
2	113	14.1	62	7.6
3	73	9.2	93	11.5
4	62	7.8	86	10.6
5	89	11.1	140	17.3
6	70	8.7	57	7.1
7	83	10.3	69	8.5
8	75	9.3	36	4.4
9	75	9.4	59	7.3
0 or 5	188	23.4	307	37.8

Figure DQ.2: Weight and height/length measurements by digits reported for the decimal points, Bungoma County MICS, 1212/14

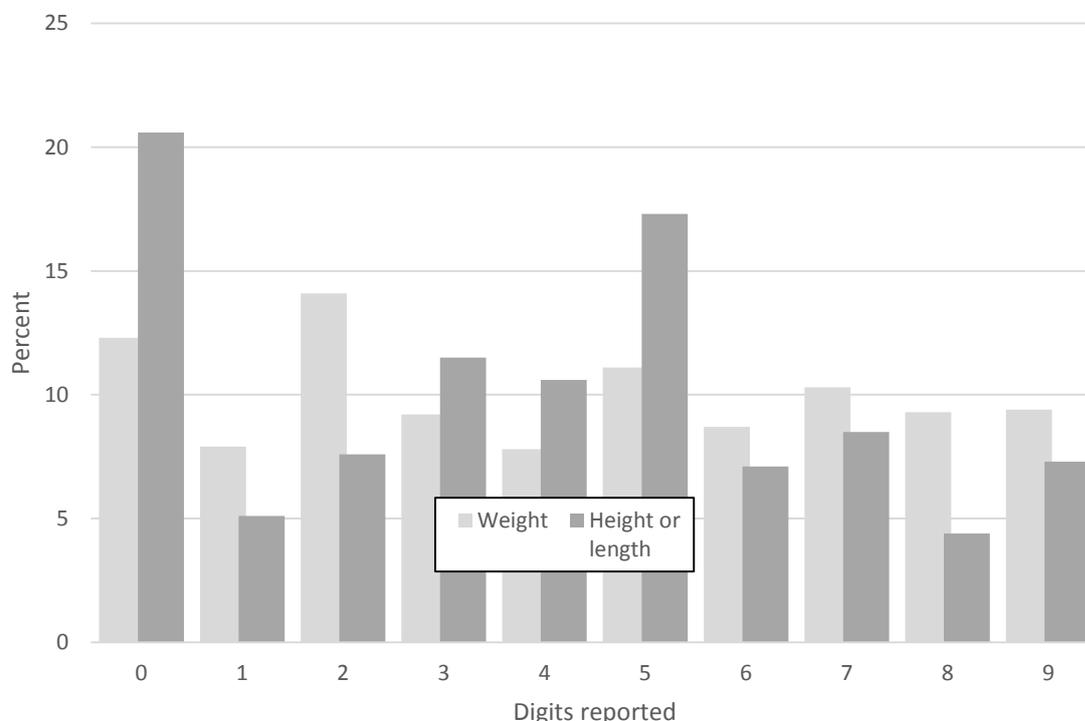


Table DQ.16: Observation of birth certificates

Percent distribution of children under 5 by presence of birth certificates, and percentage of birth certificates seen, Bungoma County MICS, 2013/14

	Child has birth certificate				Total	Percentage 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)	Child does not have birth certificate	DK/Missing			
Total	5.3	15.5	78.5	0.7	100.0	25.5	846
Area							
Urban	8.0	16.4	74.9	0.7	100.0	32.8	376
Rural	3.1	14.7	81.4	0.8	100.0	17.5	470
Child's age							
0-5 months	3.7	2.1	94.3	0.0	100.0	63.6	83
6-11 months	2.7	14.5	82.8	0.0	100.0	15.7	84
12-23 months	4.5	15.7	78.5	1.4	100.0	22.2	152
24-35 months	10.2	15.0	74.4	0.4	100.0	40.5	160
36-47 months	5.2	18.8	75.6	0.3	100.0	21.6	215
48-59 months	3.4	18.9	75.9	1.7	100.0	15.3	152

Table DQ.17: Observation of vaccination cards

Percent distribution of children age 0-35 months by presence of a vaccination card, and the percentage of vaccination cards seen by the interviewers, Bungoma County MICS, 2013/14

	Child does not have vaccination card		Child has vaccination card		Total	Percentage of vaccination cards seen by the interviewer (1)/(1+2)*100	Number of children age 0-35 months
	Had vaccination card previously	Never had vaccination card	Seen by the interviewer (1)	Not seen by the interviewer (2)			
Total	4.9	3.4	60.7	31.0	100.0	66.2	479
Area							
Urban	4.8	1.2	57.2	36.9	100.0	60.8	214
Rural	5.1	5.1	63.7	26.2	100.0	70.9	264
Child's age							
0-5 months	7.6	8.6	65.2	18.7	100.0	77.8	83
6-11 months	1.4	6.2	78.1	14.3	100.0	84.5	84
12-23 months	4.6	1.7	63.4	30.3	100.0	67.7	152
24-35 months	5.7	0.7	46.7	46.8	100.0	50.0	160

Table DQ.18: 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, Bungoma County MICS, 2013/14

	Woman does not have health card	Woman has health card			DK/Missing	Total	Percent of health cards seen by the interviewer (1)/(1+2)*100	Number of women with a live birth in the last two years
		Seen by the interviewer (1)	Not seen by the interviewer (2)					
Total	10.2	50.4	37.7	1.6	100.0	57.2	311	
Area								
Urban	4.6	47.3	45.4	2.8	100.0	51.1	137	
Rural	14.7	52.9	31.7	0.7	100.0	62.5	174	
Age								
15-24	16.4	44.1	38.6	0.9	100.0	53.3	92	
25-34	6.6	50.4	41.8	1.2	100.0	54.6	152	
35-49	9.8	59.4	27.2	3.6	100.0	68.6	67	

Table DQ.19: Observation of bednets and places for handwashing

Percentage of bednets in all households observed by the interviewers, and percent distribution of places for handwashing observed by the interviewers in all interviewed households, Bungoma County MICS,2013/14

	Percentage of bednets observed by interviewer	Total number of bednets	Place for handwashing				Total	Number of households interviewed
			Observed	Not observed				
				Not in the dwelling, plot or yard	No permission to see	Other reason		
Total	71.7	2,348	15.1	80.2	4.6	0.1	100.0	1,246
Area								
Urban	69.0	1,137	20.5	78.1	1.2	0.1	100.0	614
Rural	74.2	1,211	9.8	82.2	8.0	0.1	100.0	632
Wealth index quintile								
Poorest	73.1	337	10.4	87.4	2.2	0.0	100.0	246
Second	75.9	369	13.4	81.4	5.3	0.0	100.0	226
Middle	73.9	441	14.9	81.9	3.0	0.1	100.0	233
Fourth	69.9	540	15.8	78.7	5.5	0.0	100.0	256
Richest	68.6	660	19.8	72.8	6.7	0.3	100.0	285

Table DQ.20: Respondent to the under-5 questionnaire

Distribution of children under five by respondent to the under-5 questionnaire, Bungoma County MICS, 2013/14

	Mother in the household	Mother not in the household and primary caretaker identified:			Total	Number of children under 5
		Father	Other adult female	Other adult male		
Total	89.4	1.0	9.5	0.1	100.0	898
Age						
0	99.6	0.0	0.4	0.0	100.0	179
1	91.7	0.0	8.3	0.0	100.0	162
2	88.7	2.2	8.4	0.7	100.0	171
3	83.1	1.8	15.2	0.0	100.0	223
4	85.2	0.6	14.2	0.0	100.0	164

Table DQ.21: Selection of children age 1-17 years for the child labour and child discipline modules

Percent distribution of households by the number of children age 1-17 years, and the percentage of households with at least two children age 1-17 years where correct selection of one child for the child labour and child discipline modules was performed, Bungoma County MICS, 2013/14

	Number of children age 1-17 years			Total	Number of households	Percentage of households where correct selection was performed	Number of households with 2 or more children age 1-17 years
	None	One	Two or more				
Total	20.6	14.7	64.7	100.0	1,246	97.4	806
Area							
Urban	25.9	15.0	59.2	100.0	614	98.4	363
Rural	15.6	14.5	70.0	100.0	632	96.5	442
Wealth index quintile							
Poorest	16.2	12.7	71.1	100.0	246	97.6	175
Second	12.9	13.3	73.8	100.0	226	98.5	167
Middle	20.9	11.3	67.9	100.0	233	96.0	158
Fourth	22.4	16.4	61.2	100.0	256	98.1	157
Richest	28.8	18.9	52.3	100.0	285	96.5	149

Table DQ.22: School attendance by single age

Distribution of household population age 5-24 years by educational level and grade attended in the current (or most recent) school year, Bungoma County MICS, 2013/14

Age at beginning of school year	Currently attending																			Total	Number of household members
	Not attending school	Primary school Grade										Secondary school Grade					Higher than secondary	DK/Missing			
		Preschool	1	2	3	4	5	6	7	8	Missing/DK	1	2	3	4	6					
5	13.0	48.5	28.0	9.7	0.6	0.0	0.2	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	248
6	5.8	24.5	31.4	30.5	6.3	1.0	0.5	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	203
7	6.5	8.3	19.3	36.9	20.6	8.0	0.4	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	177
8	4.0	4.1	12.1	31.2	21.8	19.0	6.2	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	226
9	2.1	1.8	5.4	11.3	30.9	24.3	16.9	4.7	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	100.0	196	
10	1.7	1.4	0.7	5.4	16.0	23.3	21.4	21.5	7.2	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	173
11	0.5	1.3	3.6	2.3	10.1	15.5	24.0	19.7	17.8	2.5	2.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	159
12	3.9	0.7	0.2	2.6	6.9	14.2	21.7	21.5	14.8	12.5	0.0	0.5	0.0	0.4	0.0	0.0	0.0	0.0	0.0	100.0	200
13	4.8	1.2	0.0	0.0	4.1	5.0	12.6	21.6	28.2	16.9	0.0	4.1	1.5	0.0	0.0	0.0	0.0	0.0	0.0	100.0	163
14	7.3	0.0	0.0	0.0	0.6	3.3	10.9	15.5	27.3	17.8	0.0	7.8	3.0	2.4	2.6	0.9	0.0	0.7	100.0	167	
15	10.2	0.0	0.9	0.0	1.9	1.2	2.7	10.1	22.3	20.6	0.0	14.1	7.5	6.4	2.1	0.0	0.0	0.0	0.0	100.0	144
16	13.4	0.0	0.0	0.0	0.0	0.0	1.0	5.6	18.7	23.9	0.0	10.5	11.3	8.8	5.9	0.0	1.0	0.0	0.0	100.0	136
17	29.8	0.0	0.0	0.0	0.0	0.0	0.0	5.6	8.7	6.2	0.0	11.1	10.1	8.2	13.2	0.0	7.2	0.0	0.0	100.0	98
18	39.9	0.0	0.0	0.5	0.0	1.0	1.6	3.6	6.3	12.8	0.0	4.2	9.4	5.4	6.2	0.0	7.9	1.0	0.0	100.0	121
19	54.1	0.0	0.0	0.0	0.0	0.0	0.0	0.8	3.5	5.8	0.0	0.8	10.0	8.3	10.1	0.0	5.6	1.2	0.0	100.0	86
20	65.1	0.0	0.0	0.0	0.0	0.0	0.0	2.0	4.4	0.7	0.0	4.4	2.0	3.8	10.2	0.0	7.3	0.0	0.0	100.0	98
21	67.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.8	6.8	2.5	3.1	0.0	18.5	0.0	0.0	100.0	59
22	70.0	0.0	0.0	0.0	0.0	0.0	0.6	1.7	0.0	0.0	0.0	0.0	3.9	8.5	2.3	0.0	13.0	0.0	0.0	100.0	73
23	81.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	2.5	3.3	0.0	12.0	0.0	0.0	100.0	86
24 ^a	90.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	8

^a Those age 25 at the time of interview who were age 24 at beginning of school year are excluded as current attendance was only collected for those age 5-24 at the time of interview

Table DQ.23: 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, Bungoma County MICS, 2013/14

	Children Ever Born			Children Living			Children Deceased			Number of women
	Sons	Daughters	Sex ratio at birth	Sons	Daughters	Sex ratio	Sons	Daughters	Sex ratio	
Total	1,702	1,768	0.96	1,530	1,624	0.94	172	144	1.19	1,213
Age										
15-19	20	18	1.11	20	18	1.11	0	0	-	296
20-24	114	124	0.92	108	123	0.88	6	1	5.59	191
25-29	287	301	0.95	276	284	0.97	11	17	0.63	222
30-34	284	335	0.85	265	314	0.84	19	21	0.91	161
35-39	345	337	1.02	309	306	1.01	36	31	1.17	142
40-44	353	363	0.97	283	324	0.87	69	40	1.75	110
45-49	299	290	1.03	269	255	1.06	31	35	0.87	92

Table DQ.24: Births by periods preceding the survey

Number of births, sex ratio at birth, and period ratio by periods preceding the survey, according to living, deceased, and total children (imputed), as reported in the birth histories, Bungoma County MICS, 2013/14

	Number of births			Percent with complete birth date ^a			Sex ratio at birth ^b			Period ratio ^c		
	Living	Deceased	Total	Living	Deceased	Total	Living	Deceased	Total	Living	Deceased	Total
Total	3,154	316	3,470	98.7	91.8	98.1	94.2	118.9	96.2	na	na	na
Years												
0	169	1	170	100.0	100.0	100.0	92.1	na	93.1	na	na	na
1	147	5	152	97.2	100.0	97.3	124.4	76.4	122.5	93.3	127.9	94.1
2	146	6	153	100.0	100.0	100.0	86.1	63.4	85.0	85.1	159.4	86.8
3	197	3	200	98.8	100.0	98.8	98.9	147.3	99.6	136.2	90.6	135.0
4	143	1	144	98.9	100.0	98.9	81.6	0.0	80.6	73.3	10.5	70.4
5	192	16	208	98.4	92.1	97.9	89.7	25.3	82.6	115.2	192.9	118.8
6	191	15	207	99.7	100.0	99.7	103.2	69.8	100.3	107.9	116.0	108.5
7	162	11	173	98.7	100.0	98.8	97.5	200.5	101.8	95.5	78.3	94.2
8	148	12	160	98.4	94.6	98.1	96.3	112.5	97.4	87.7	72.1	86.3
9	176	22	199	100.0	100.0	100.0	117.0	129.0	118.2	21.6	18.9	21.3
10+	1,482	224	1,706	98.3	89.3	97.1	90.0	135.3	95.0	na	na	na
Five-year periods												
0-4	801	16	817	99.0	100.0	99.0	95.7	83.1	95.5	na	na	na
5-9	871	76	946	99.0	97.5	98.9	100.3	87.7	99.3	na	na	na
10-14	650	88	738	98.8	86.2	97.3	80.9	166.7	88.1	na	na	na
15-19	432	68	500	97.4	93.1	96.8	92.7	107.5	94.6	na	na	na
20+	399	68	467	98.5	89.6	97.2	103.7	131.1	107.3	na	na	na

na: not applicable

^a Both month and year of birth given. The inverse of the percent reported is the percent with incomplete and therefore imputed date of birth

^b $(B_m/B_f) \times 100$, where B_m and B_f are the numbers of male and female births, respectively

^c $(2 \times B_t/(B_{t-1} + B_{t+1})) \times 100$, where B_t is the number of births in year t preceding the survey

Table DQ.25: Reporting of age at death in days					
Distribution of reported deaths under one month of age by age at death in days and the percentage of neonatal deaths reported to occur at ages 0–6 days, by 5-year periods preceding the survey (imputed), Bungoma County MICS, 2013/14					
	Number of years preceding the survey				Total (0–19)
	0–4	5–9	10–14	15–19	
Age at death (days)					
0	1	2	0	0	3
1	5	3	8	2	18
2	0	2	1	3	6
3	0	0	1	0	1
4	0	6	0	0	6
5	0	0	1	0	1
7	1	1	1	1	4
9	0	0	1	0	1
14	0	1	1	1	3
21	0	2	0	0	2
Total 0–30 days	7	17	15	7	46
Percent early neonatal ^a	88.8	74.4	72.8	76.9	76.5
^a Deaths during the first 7 days (0-6), divided by deaths during the first month (0-30 days)					

Table DQ.26: Reporting of age at death in months

Distribution of reported deaths under two years of age by age at death in months and the percentage of infant deaths reported to occur at age under one month, for the 5-year periods of birth preceding the survey (imputed), Bungoma County MICS, 2013/14

	Number of years preceding the survey				Total (0-19)
	0-4	5-9	10-14	15-19	
Age at death (months)					
0 ^a	7	17	15	7	46
1	1	2	15	0	18
2	1	6	0	2	10
3	0	2	1	6	9
4	0	1	4	1	6
5	0	0	5	0	6
6	0	5	6	4	14
7	0	1	1	0	3
8	1	4	0	4	9
9	1	5	4	2	12
11	0	0	3	0	3
12	1	1	0	1	3
17	0	0	1	0	1
18	0	0	0	0	0
Reported as 1 year	2	5	8	6	21
Total 0-11 months	12	43	55	26	136
Percent neonatal ^b	59.6	39.4	27.5	26.6	33.9
^a Includes deaths under one month reported in days					
^b Deaths under one month, divided by deaths under one year					

Appendix G. Bungoma County MICS5 Indicators: Numerators and Denominators

MICS INDICATOR	Module ¹²⁷	Numerator	Denominator	MDG Indicator Reference ¹²⁸
MORTALITY¹²⁹				
1.1	Neonatal mortality rate	BH	Probability of dying within the first month of life	
1.2	Infant mortality rate	CM - BH	Probability of dying between birth and the first birthday	MDG 4.2
1.3	Post-neonatal mortality rate	BH	Difference between infant and neonatal mortality rates	
1.4	Child mortality rate	BH	Probability of dying between the first and the fifth birthdays	
1.5	Under-five mortality rate	CM - BH	Probability of dying between birth and the fifth birthday	MDG 4.1

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) of 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) of 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) of the median weight for height of the WHO standard	Total number of children under age 5
2.4	Overweight prevalence	AN	Number of children under age 5 who are above two standard deviations of the median weight for height of the WHO standard	Total number of children under age 5
2.5	Children ever breastfed	MN	Number of women with a live birth in the last 2 years who breastfed their last live-born child at any time	Total number of women with a live birth in the last 2 years

¹²⁷Some indicators are constructed by using questions in several modules in the MICS questionnaires. In such cases, only the module(s) which contains most of the necessary information is indicated.

¹²⁸Millennium Development Goals (MDG) indicators, effective 15 January 2008 - <http://mdgs.un.org/unsd/mdg/Host.aspx?Content=Indicators/OfficialList.htm>, accessed 10 June 2013.

¹²⁹When the Birth History module is used, mortality indicators are calculated for the last 5-year period. When the indicators are estimated indirectly (using the Fertility module only), the rates refer to dates as estimated by the indirect technique.

2.6	Early initiation of breastfeeding	MN	Number of women with a live birth in the last 2 years who put their last newborn to the breast within one hour of birth	Total number of women with a live birth in the last 2 years	
2.7	Exclusive breastfeeding under 6 months	BD	Number of infants under 6 months of age who are exclusively breastfed ¹³⁰	Total number of infants under 6 months of age	
2.8	Predominant breastfeeding under 6 months	BD	Number of infants under 6 months of age who received breast milk as the predominant source of nourishment ¹³¹ during the previous day	Total number of infants under 6 months of age	
2.9	Continued breastfeeding at 1 year	BD	Number of children age 12-15 months who received breast milk during the previous day	Total number of children age 12-15 months	
2.10	Continued breastfeeding at 2 years	BD	Number of children age 20-23 months who received breast milk during the previous day	Total number of children age 20-23 months	
2.11	Duration of breastfeeding	BD	The age in months when 50 percent of children age 0-35 months did not receive breast milk during the previous day		
2.12	Age-appropriate breastfeeding	BD	Number of children age 0-23 months appropriately fed ¹³² during the previous day	Total number of children age 0-23 months	
2.13	Introduction of solid, semi-solid or soft foods	BD	Number of infants age 6-8 months who received solid, semi-solid or soft foods during the previous day	Total number of infants age 6-8 months	
2.14	Milk feeding frequency for non-breastfed children	BD	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	
2.15	Minimum meal frequency	BD	Number of children age 6-23 months who received solid, semi-solid and soft foods (plus milk feeds for non-breastfed children) the minimum number of times ¹³³ or more during the previous day	Total number of children age 6-23 months	

¹³⁰Infants receiving breast milk, and not receiving any other fluids or foods, with the exception of oral rehydration solution, vitamins, mineral supplements and medicines

¹³¹Infants who receive breast milk and certain fluids (water and water-based drinks, fruit juice, ritual fluids, oral rehydration solution, drops, vitamins, minerals, and medicines), but do not receive anything else (in particular, non-human milk and food-based fluids)

¹³²Infants age 0-5 months who are exclusively breastfed, and children age 6-23 months who are breastfed and ate solid, semi-solid or soft foods

¹³³Breastfeeding children: Solid, semi-solid, or soft foods, two times for infants age 6-8 months, and three 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

2.16	Minimum dietary diversity	BD	Number of children age 6–23 months who received foods from 4 or more food groups ¹³⁴ during the previous day	Total number of children age 6–23 months	
2.17a 2.17b	Minimum acceptable diet	BD	(a) Number of breastfed children age 6–23 months who had at least the minimum dietary diversity and the minimum meal frequency during the previous day (b) Number of non-breastfed children age 6–23 months who received at least 2 milk feedings and had at least the minimum dietary diversity not including milk feeds and the minimum meal frequency during the previous day	(a) Number of breastfed children age 6–23 months (b) Number of non-breastfed children age 6–23 months	
2.18	Bottle feeding	BD	Number of children age 0–23 months who were fed with a bottle during the previous day	Total number of children age 0–23 months	
2.19	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 where there was no salt	
2.20	Low-birthweight infants	MN	Number of most recent live births in the last 2 years weighing below 2,500 grams at birth	Total number of most recent live births in the last 2 years	
2.21	Infants weighed at birth	MN	Number of most recent live births in the last 2 years who were weighed at birth	Total number of most recent live births in the last 2 years	

CHILD HEALTH

3.1	Tuberculosis immunization coverage	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 the third dose of OPV vaccine (OPV3) before their first birthday	Total number of children age 12–23 months	
3.3	Diphtheria, pertussis and tetanus (DPT) immunization coverage	IM	Number of children age 12–23 months who received the third dose of DPT vaccine (DPT3) before their first birthday	Total number of children age 12–23 months	
3.4	Measles immunization coverage ¹³⁵	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
3.5	Hepatitis B immunization coverage	IM	Number of children age 12–23 months who received the third dose of Hepatitis B vaccine (HepB3) by their first birthday	Total number of children age 12–23 months	
3.6	Haemophilus influenzae type b (Hib) immunization coverage	IM	Number of children age 12–23 months who received the third dose	Total number of children age 12–23 months	

¹³⁴The indicator is based on consumption of any amount of food from at least 4 out of the 7 following food groups: 1) grains, roots and tubers, 2) legumes and nuts, 3) dairy products (milk, yogurt, cheese), 4) flesh foods (meat, fish, poultry and liver/organ meats), 5) eggs, 6) vitamin-A rich fruits and vegetables, and 7) other fruits and vegetables

			of Hib vaccine (Hib3) by their first birthday		
3.7	Yellow fever immunization coverage	IM	Number of children age 12-23 months who received yellow fever vaccine by their first birthday	Total number of children age 12-23 months	
3.8	Full immunization coverage	IM	Number of children age 12-23 months who received all vaccinations recommended in the national immunization schedule before their first birthday	Total number of children age 12-23 months	
3.9	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 ¹³⁶ prior to the most recent birth	Total number of women age 15-49 years with a live birth in the 2 years preceding the survey	
3.10	Care-seeking for diarrhoea	CA	Number of children under age 5 with diarrhoea in the last 2 weeks for whom advice or treatment was sought from a health facility or provider	Total number of children under age 5 with diarrhoea in the last 2 weeks	
3.11	Diarrhoea treatment with oral rehydration salts (ORS) and zinc	CA	Number of children under age 5 with diarrhoea in the last 2 weeks who received ORS and zinc	Total number of children under age 5 with diarrhoea in the last 2 weeks	
3.12	Diarrhoea treatment with oral rehydration therapy (ORT) and continued feeding	CA	Number of children under age 5 with diarrhoea in the last 2 weeks who received ORT (ORS packet, pre-packaged ORS fluid, 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 last 2 weeks	
3.13	Care-seeking for children with acute respiratory infection (ARI) symptoms	CA	Number of children under age 5 with ARI symptoms in the last 2 weeks for whom advice or treatment was sought from a health facility or provider	Total number of children under age 5 with ARI symptoms in the last 2 weeks	
3.14	Antibiotic treatment for children with ARI symptoms	CA	Number of children under age 5 with ARI symptoms in the last 2 weeks who received antibiotics	Total number of children under age 5 with ARI symptoms in the last 2 weeks	
3.15	Use of solid fuels for cooking	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	
3.16a 3.16b	Household availability of insecticide-treated nets (ITNs) ¹³⁷	TN	Number of households with (a) at least one ITN (b) at least one ITN for every two people	Total number of households	

¹³⁶See the MICS tabulation plan for a detailed description

¹³⁷An ITN is (a) a conventionally treated net which has been soaked with an insecticide within the past 12 months, (b) factory treated net which does not require any treatment (LLIN), (b) a pretreated net obtained within the past 12 months, or (c) a net that has been soaked with or dipped in insecticide within the past 12 months

3.17a 3.17b	Household vector control ¹³⁸	TN - IR	Number of households (a) with at least one ITN or that have been sprayed by IRS ¹³⁹ in the last 12 months (b) with at least one ITN for every two people or that have been sprayed by IRS in the last 12 months	Total number of households	
3.18	Children under age 5 who slept under an ITN	TN	Number of children under age 5 who slept under an ITN the previous night	Total number of children under age 5	MDG 6.7
3.19	Population that slept under an ITN	TN	Number of household members who slept under an ITN the previous night	Total number of household members who spent the previous night in the interviewed households	
3.20	Care-seeking for fever	CA	Number of children under age 5 with fever in the last 2 weeks for whom advice or treatment was sought from a health facility or provider	Total number of children under age 5 with fever in the last 2 weeks	
3.21	Malaria diagnostics usage	CA	Number of children under age 5 with fever in the last 2 weeks who had a finger or heel prick for malaria testing	Total number of children under age 5 with fever in the last 2 weeks	
3.22	Anti-malarial treatment of children under age 5	CA	Number of children under age 5 who tested positive for malaria in the last 2 weeks who received any antimalarial treatment	Total number of children under age 5 who tested positive for malaria in the last 2 weeks	MDG 6.8
3.23	Treatment with Artemisinin-based Combination Therapy (ACT) among children who received malarial treatment	CA	Number of children under age 5 with fever in the last 2 weeks who received ACT or Quinine (or other first-line treatment according to national policy)	Total number of children under age 5 with fever in the last 2 weeks who received any anti-malarial drugs	
3.24	Pregnant women who slept under an ITN	TN - CP	Number of pregnant women who slept under an ITN the previous night	Total number of pregnant women	
3.25	Intermittent preventive treatment for malaria during pregnancy	MN	Number of women age 15-49 years who received two or more doses of SP/Fansidar, at least one of which was received during an ANC visit, to prevent malaria during their last pregnancy that led to a live birth in the last 2 years	Total number of women age 15-49 years who have had a live birth in the last 2 years	

¹³⁸(a) Households covered by vector control, (b) Universal coverage of vector control

¹³⁹Indoor Residual Spraying

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 in households using unimproved drinking water sources who use an appropriate treatment method	Total number of household members in households using unimproved drinking water sources	
4.3	Use of improved sanitation	WS	Number of household members using improved sanitation facilities which are not shared	Total number of household members	MDG 7.9
4.4	Safe disposal of child's faeces	CA	Number of children age 0-2 years whose last stools were disposed of safely	Total number of children age 0-2 years	
4.5	Place for handwashing	HW	Number of households with a specific place for hand washing where water and soap or other cleansing agent are present	Total number of households	
4.6	Availability of soap or other cleansing agent	HW	Number of households with soap or other cleansing agent	Total number of households	

REPRODUCTIVE HEALTH					
5.1	Adolescent birth rate ¹⁴⁰	CM - BH	Age-specific fertility rate for women age 15-19 years		MDG 5.4
5.2	Early childbearing	CM - BH	Number of women age 20-24 years who had at least one live birth before age 18	Total number of women age 20-24 years	
5.3	Contraceptive prevalence rate	CP	Number of women age 15-49 years currently married or in union who are using (or whose partner is using) a (modern or traditional) contraceptive method	Total number of women age 15-49 years who are currently married or in union	MDG 5.3
5.4	Unmet need ¹⁴¹	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 with a live birth in the last 2 years who were attended (a) at least once by skilled personnel (b) at least four times by skilled personnel during their last pregnancy that led to a live birth	Total number of women age 15-49 years with a live birth in the last 2 years	MDG 5.5

¹⁴⁰The indicator is calculated for the last 3-year period.

¹⁴¹See the MICS tabulation plan for a detailed description

5.6	Content of antenatal care	MN	Number of women age 15-49 years with a live birth in the last 2 years who had their blood pressure measured and gave urine and blood samples during the last pregnancy that led to a live birth	Total number of women age 15-49 years with a live birth in the last 2 years	
5.7	Skilled attendant at delivery	MN	Number of women age 15-49 years with a live birth in the last 2 years who were attended by skilled health personnel during their most recent live birth	Total number of women age 15-49 years with a live birth in the last 2 years	MDG 5.2
5.8	Institutional deliveries	MN	Number of women age 15-49 years with a live birth in the last 2 years whose most recent live birth was delivered in a health facility	Total number of women age 15-49 years with a live birth in the last 2 years	
5.9	Caesarean section	MN	Number of women age 15-49 years whose most recent live birth in the last 2 years was delivered by caesarean section	Total number of women age 15-49 years with a live birth in the last 2 years	
5.10	Post-partum stay in health facility	PN	Number of women age 15-49 years who stayed in the health facility for 24 hours or more after the delivery of their most recent live birth in the last 2 years	Total number of women age 15-49 years with a live birth in the last 2 years	
5.11	Post-natal health check for the newborn	PN	Number of last live births in the last 2 years who received a health check while in facility or at home following delivery, or a post-natal care visit within 2 days after delivery	Total number of last live births in the last 2 years	
5.12	Post-natal health check for the mother	PN	Number of women age 15-49 years who received a health check while in facility or at home following delivery, or a post-natal care visit within 2 days after delivery of their most recent live birth in the last 2 years	Total number of women age 15-49 years with a live birth in the last 2 years	
5.13	Maternal mortality ratio	MM	Deaths during pregnancy, childbirth, or within two months after delivery or termination of pregnancy, per 100,000 births within the 5-year period preceding the survey		MDG 5.1

CHILD DEVELOPMENT

6.1	Net Attendance to early childhood education	EC	Number of children age 36-59 months who are attending an early childhood education programme	Total number of children age 36-59 months	
6.2	Support for learning	EC	Number of children age 36-59 months with whom an adult has engaged in four or more activities to promote learning and school readiness in the last 3 days	Total number of children age 36-59 months	
6.3	Father's support for learning	EC	Number of children age 36-59 months whose father has engaged in four or more activities to promote learning and school readiness in the last 3 days	Total number of children age 36-59 months	
6.4	Mother's support for learning	EC	Number of children age 36-59 months whose mother has engaged in four or more activities to promote learning and school readiness in the last 3 days	Total number of children age 36-59 months	

6.5	Availability of children's books	EC	Number of children under age 5 who have three or more children's books	Total number of children under age 5	
6.6	Availability of playthings	EC	Number of children under age 5 with two or more types of playthings	Total number of children under age 5	
6.7	Inadequate care	EC	Number of children under age 5 left alone or in the care of another child younger than 10 years of age for more than one hour at least once in the last week	Total number of children under age 5	
6.8	Early child development index	EC	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	

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
7.2	School readiness	ED	Number of children in first grade of primary school who attended pre-school during the previous school year	Total number of children attending the first grade of primary school	
7.3	Net intake rate in primary education	ED	Number of children of school-entry age who enter the first grade of primary school	Total number of children of school-entry age	
7.4	Primary school net attendance ratio (adjusted) ¹⁴²	ED	Number of children of primary school age currently attending primary (primary 1-6; ISCED 1) or secondary school	Total number of children of primary school age (ISCED)	MDG 2.1
7.S1	Primary school net attendance ratio (adjusted)	ED	Number of children of primary school age currently attending primary (primary 1-8; national) or secondary school	Total number of children of primary school age (national)	
7.5	Secondary school net attendance ratio (adjusted)	ED	Number children of secondary school age currently attending secondary (primary 7-8 included; ISCED) school or higher	Total number of children of secondary school age (ISCED)	
7.S2	Secondary school net attendance ratio (adjusted)	ED	Number of children of secondary school age currently attending secondary school (national) or higher	Total number of children of secondary school age	
7.6	Children reaching last grade of primary	ED	Proportion of children entering the first grade of primary school who eventually reach last grade (primary 6; ISCED)		MDG 2.2
7.S3	Children reaching last grade of primary	ED	Proportion of children entering the first grade of primary school who eventually reach last grade (primary 8; national)		
7.7	Primary completion rate	ED	Number of children attending the last grade of primary school (excluding repeaters) (ISCED)	Total number of children of primary school completion age (age appropriate to final grade of primary school) (ISCED)	

¹⁴²For Kenya, the International Standard Classification of Education (ISCED) 1997 classifies Primary 7 and 8 as Lower Secondary education. The indicators labelled ISCED calculates Primary School indicators based on Primary 1-6 only, whereas Primary 7 and 8 are included in Secondary School indicators. Those indicators labelled national and marked with S are based on the national education system, which includes Primary 7-8 in Primary School indicators.

7.S4	Primary completion rate	ED	Number of children attending the last grade of primary school (excluding repeaters) (national)	Total number of children of primary school completion age (age appropriate to final grade of primary school) (national)	
7.7a	Secondary completion rate	ED	Number of children attending the last grade of secondary school (form four), excluding repeaters	Total number of children of secondary school (form four) completion age (age appropriate to final grade of secondary school)	
7.8	Transition rate to secondary school	ED	Number of children attending the last grade of primary school during the previous school year who are in the first grade of secondary school during the current school year (ISCED)	Total number of children attending the last grade of primary school during the previous school year (ISCED)	
7.S5	Transition rate to secondary school	ED	Number of children attending the last grade of primary school during the previous school year who are in the first grade of secondary school during the current school year (national)	Total number of children attending the last grade of primary school during the previous school year (national)	
7.9	Gender parity index (primary school)	ED	Primary school net attendance ratio (adjusted) for girls (ISCED)	Primary school net attendance ratio (adjusted) for boys (ISCED)	MDG 3.1
7.S6	Gender parity index (primary school)	ED	Primary school net attendance ratio (adjusted) for girls (national)	Primary school net attendance ratio (adjusted) for boys (national)	
7.10	Gender parity index (secondary school)	ED	Secondary school net attendance ratio (adjusted) for girls (ISCED)	Secondary school net attendance ratio (adjusted) for boys (ISCED)	MDG 3.1
7.S7	Gender parity index (secondary school)	ED	Secondary school net attendance ratio (adjusted) for girls (national)	Secondary school net attendance ratio (adjusted) for boys (national)	

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 5-17 years who are involved in child labour	Total number of children age 5-17 years	
8.3	Violent discipline	CD	Number of children age 1-14 years who experienced psychological aggression or physical punishment during the last one month	Total number of children age 1-14 years	
8.4	Marriage before age 15	MA	Number of women age 15-49 years who were first married or in union before age 15	Total number of women age 15-49 years	
8.5	Marriage before age 18	MA	Number of women age 20-49 years who were first married or in union before age 18	Total number of women age 20-49 years	
8.6	Young women age 15-19 years currently married or in union	MA	Number of women age 15-19 years who are married or in union	Total number of women age 15-19 years	
8.7	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 married or in union	
8.8a 8.8b	Spousal age difference	MA	Number of women who are married or in union and whose spouse is 10 or more years older, (a) among women age 15-19 years, (b) among women age 20-24 years	Total number of women who are married or in union (a) age 15-19 years, (b) age 20-24 years	
8.9	Approval for female genital mutilation/cutting (FGM/C)	FGM/C	Number of women age 15-49 years who state that FGM/C should be continued	Total number of women age 15-49 years	
8.10	Prevalence of FGM/C among women	FGM/C	Number of women age 15-49 years who report to have undergone any form of FGM/C	Total number of women age 15-49 years	
8.11	Prevalence of FGM/C among girls	FGM/C	Number of daughters age 0-14 years who have undergone any form of FGM/C, as reported by mothers age 15-49 years	Total number of daughters age 0-14 years	
8.12	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	

8.13	Children's living arrangements	HL	Number of children age 0-17 years living with neither biological parent	Total number of children age 0-17 years	
8.14	Prevalence of children with one or both parents dead	HL	Number of children age 0-17 years with one or both parents dead	Total number of children age 0-17 years	
8.15	Children with at least one parent living abroad	HL	Number of children 0-17 years with at least one parent living abroad	Number of children 0-17 years	

HIV/AIDS AND SEXUAL BEHAVIOUR					
9.1	Knowledge about HIV prevention among young women	HA	Number of women age 15-24 years who correctly identify ways of preventing the sexual transmission of HIV ¹⁴³ , and who reject major misconceptions about HIV transmission	Total number of women age 15-24 years	MDG 6.3
9.2	Knowledge of mother-to-child transmission of HIV	HA	Number of women age 15-49 years who correctly identify all three means ¹⁴⁴ of mother-to-child transmission of HIV	Total number of women age 15-49 years	
9.3	Accepting attitudes towards people living with HIV	HA	Number of women age 15-49 years expressing accepting attitudes on all four questions ¹⁴⁵ toward people living with HIV	Total number of women age 15-49 years who have heard of HIV	
9.4	Women who know where to be tested for HIV	HA	Number of women age 15-49 years who state knowledge of a place to be tested for HIV	Total number of women age 15-49 years	
9.5	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 last 12 months and who know their results	Total number of women age 15-49 years	
9.6	Sexually active young women who have been tested for HIV and know the results	HA	Number of women age 15-24 years who have had sex in the last 12 months, who have been tested for HIV in the last 12 months and who know their results	Total number of women age 15-24 years who have had sex in the last 12 months	
9.7	HIV counselling during antenatal care	HA	Number of women age 15-49 years who had a live birth in the last 2 years and received antenatal care during the pregnancy of their most recent birth, reporting that they received counselling on HIV during antenatal care	Total number of women age 15-49 years who had a live birth in the last 2 years	

¹⁴³Using condoms and limiting sex to one faithful, uninfected partner

¹⁴⁴Transmission during pregnancy, during delivery, and by breastfeeding

¹⁴⁵Women (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

9.8	HIV testing during antenatal care	HA	Number of women age 15-49 years who had a live birth in the last 2 years and received antenatal care during the pregnancy of their most recent birth, 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 had a live birth in the last 2 years	
9.9	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	
9.10	Sex before age 15 among young women	SB	Number of women age 15-24 years who had sexual intercourse before age 15	Total number of women age 15-24 years	
9.11	Age-mixing among sexual partners	SB	Number of women age 15-24 years who had sex in the last 12 months with a partner who was 10 or more years older	Total number of women age 15-24 years who had sex in the last 12 months	
9.12	Multiple sexual partnerships	SB	Number of women age 15-49 years who had sexual intercourse with more than one partner in the last 12 months	Total number of women age 15-49 years	
9.13	Condom use at last sex among people with multiple sexual partnerships	SB	Number of women age 15-49 years who report having 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	Total number of women age 15-49 years who reported having had more than one sexual partner in the last 12 months	
9.14	Sex with non-regular partners	SB	Number of sexually active women age 15-24 years who had sex with a non-marital, non-cohabitating partner in the last 12 months	Total number of women age 15-24 years who had sex in the last 12 months	
9.15	Condom use with non-regular partners	SB	Number of women age 15-24 years reporting the use of a condom during the last sexual intercourse with a non-marital, non-cohabiting sex partner in the last 12 months	Total number of women age 15-24 years who had a non-marital, non-cohabiting partner in the last 12 months	MDG 6.2
9.15a	Condom use with regular partners	SB	Number of women age 15-24 years reporting the use of a condom during the last sexual intercourse with a marital, cohabiting sex partner in the last 12 months	Total number of women age 15-24 years who had a marital, cohabiting partner in the last 12 months	

ACCESS TO MASS MEDIA AND USE OF INFORMATION/COMMUNICATION TECHNOLOGY					
10.1	Exposure to mass media	MT	Number of women age 15-49 years who, at least once a week, read a newspaper or magazine, listen to the radio, and watch television	Total number of women age 15-49 years	
10.2	Use of computers	MT	Number of young women age 15-24 years who used a computer during the last 12 months	Total number of women age 15-24 years	
10.3	Use of internet	MT	Number of young women age 15-24 who used the internet during the last 12 months	Total number of women age 15-24 years	

SUBJECTIVE WELL-BEING					
11.1	Life satisfaction		Number of young women age 15-24 years who are very or somewhat satisfied with their life, overall	Total number of young women age 15-24 years	
11.2	Happiness		Number of young women age 15-24 years who are very or somewhat happy	Total number of young women age 15-24 years	
11.3	Perception of a better life		Number of young women age 15-24 years whose life improved during the last one year, and who expect that their life will be better after one year	Total number of young women age 15-24 years	

TOBACCO AND ALCOHOL USE					
12.1	Tobacco use	TA	Number of women age 15-49 years who smoked cigarettes, or used smoked or smokeless tobacco products at any time during the last one month	Total number of women age 15-49 years	
12.2	Smoking before age 15	TA	Number of women age 15-49 years who smoked a whole cigarette before age 15	Total number of women age 15-49 years	
12.3	Use of alcohol	TA	Number of women age 15-49 years who had at least one alcoholic drink at any time during the last one month	Total number of women age 15-49 years	
12.4	Use of alcohol before age 15	TA	Number of women age 15-49 years who had at least one alcoholic drink before age 15	Total number of women age 15-49 years	

Appendix H. Bungoma County MICS Questionnaires

HOUSEHOLD QUESTIONNAIRE WESTERN AND NORTH RIFT SURVEY



HOUSEHOLD INFORMATION PANEL		HH																
HH1. Cluster number: ___ ___ ___ ___	HH2. Household number: ___ ___ ___																	
HH3. Interviewer's name and number: Name _____	HH4. Supervisor's name and number: Name _____																	
HH5. Day / Month / Year of interview: ___ ___ / ___ ___ / 201 ___	HH7. Region: Bungoma.....1 Kakamega.....2 Turkana.....3																	
HH6. Area: Urban..... 1 Rural..... 2																		
<p>WE ARE FROM UNIVERSITY OF NAIROBI AND KENYA NATIONAL BUREAU OF STATISTICS. WE ARE CONDUCTING A SURVEY ABOUT THE SITUATION OF CHILDREN, FAMILIES AND HOUSEHOLDS. I WOULD LIKE TO TALK TO YOU ABOUT THESE SUBJECTS. THE INTERVIEW WILL TAKE ABOUT 55 MINUTES TO ONE HOUR. ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND ANONYMOUS. MAY I START NOW?</p> <p><input type="checkbox"/> <i>Yes, permission is given</i> ⇒ Go to HH18 to record the time and then begin the interview.</p> <p><input type="checkbox"/> <i>No, permission is not given</i> ⇒ Circle 04 in HH9. Discuss this result with your supervisor.</p>																		
HH9. Result of household interview: <table style="width:100%; border: none;"> <tr><td>Completed.....</td><td style="text-align: right;">01</td></tr> <tr><td>No household member or no competent respondent at home at time of visit</td><td style="text-align: right;">02</td></tr> <tr><td>Entire household absent for extended period of time</td><td style="text-align: right;">03</td></tr> <tr><td>Refused</td><td style="text-align: right;">04</td></tr> <tr><td>Dwelling vacant / Address not a dwelling.....</td><td style="text-align: right;">05</td></tr> <tr><td>Dwelling destroyed</td><td style="text-align: right;">06</td></tr> <tr><td>Dwelling not found.....</td><td style="text-align: right;">07</td></tr> <tr><td>Other (<i>specify</i>) _____</td><td style="text-align: right;">96</td></tr> </table>			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 (<i>specify</i>) _____	96
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 (<i>specify</i>) _____	96																	

<i>After the household questionnaire has been completed, fill in the following information:</i>
HH10. Respondent to Household Questionnaire: Name _____
HH11. Total number of household members: ___ ___

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

HH12. Number of women age 15-49 years: _____
HH14. Number of children under age 5: _____

HH13. Number of women's questionnaires completed: _____
HH15. Number of under-5 questionnaires completed: _____

HH16. Field editor's name and number: Name _____
--

HH17. Main data entry clerk's name and number: Name _____

HH18. Record the time.
 Hour
 Minutes.....

LIST OF HOUSEHOLD MEMBERS **HL**

FIRST, PLEASE TELL ME THE NAME OF EACH PERSON WHO USUALLY LIVES HERE, STARTING WITH THE HEAD OF THE HOUSEHOLD.
List the head of the household in line 01. List all household members (HL2), their relationship to the household head (HL3), and their sex (HL4)
 Then ask: ARE THERE ANY OTHERS WHO LIVE HERE, EVEN IF THEY ARE NOT AT HOME NOW?
If yes, complete listing for questions HL2-HL4. Then, ask questions starting with HL5 for each person at a time.
Use an additional questionnaire if all rows in the List of Household Members have been used.

HL1. Line no.	HL2. Name	HL3. WHAT IS THE RELATIONSHIP OF (name) TO THE HEAD OF HOUSEHOLD?	HL4. IS (name) MALE OR FEMALE? 1 Male 2 Female	HL5. WHAT IS (name)'S DATE OF BIRTH?		HL6. HOW OLD IS (name)? <i>Record in completed years. If age is 95 or above, record '95'</i>	HL6A. DID (name) STAY HERE LAST NIGHT? 1 Yes 2 No	For women age 15-49	For children age 0-4	For children age 0-17 years						For children age 0-14											
				HL7.	HL7B.			HL11. IS (name)'S NATURAL MOTHER ALIVE? 1 Yes 2 No 8 DK HL13	HL12. DOES (name)'S NATURAL MOTHER LIVE IN THIS HOUSEHOLD? <i>If "Yes" Record line no. of mother and go to HL13</i> <i>Record 00 for "No"</i>	HL12A. WHERE DOES (name)'S NATURAL MOTHER LIVE? 1 In another household in this country 2 Institution in this country 3 Abroad 8 DK	HL13. IS (name)'S NATURAL FATHER ALIVE? 1 Yes 2 No 8 DK HL15	HL14. DOES (name)'S NATURAL FATHER LIVE IN THIS HOUSEHOLD? <i>If "Yes" Record line no. of father and go to HL15</i> <i>Record 00 for "No"</i>	HL14A. WHERE DOES (name)'S NATURAL FATHER LIVE? 1 In another household in this country 2 Institution in this country 3 Abroad 8 DK	HL15. <i>Record line no. of mother from HL12 if indicated. If HL12 is blank, or "00" ask:</i> WHO IS THE PRIMARY CARETAKER OF (name)?													
Line	Name	Relation*	M	F	Month	Year	Age	Y	N	15-49	0-4	Y	N	DK	Mother		Y	N	DK	Father		Mother					
01		01	1	2	___	___	___	1	2	01	01	1	2	8	___	___	1	2	8	___	___	1	2	3	8	___	___
02		___	1	2	___	___	___	1	2	02	02	1	2	8	___	___	1	2	8	___	___	1	2	3	8	___	___
03		___	1	2	___	___	___	1	2	03	03	1	2	8	___	___	1	2	8	___	___	1	2	3	8	___	___
04		___	1	2	___	___	___	1	2	04	04	1	2	8	___	___	1	2	8	___	___	1	2	3	8	___	___
05		___	1	2	___	___	___	1	2	05	05	1	2	8	___	___	1	2	8	___	___	1	2	3	8	___	___
06		___	1	2	___	___	___	1	2	06	06	1	2	8	___	___	1	2	8	___	___	1	2	3	8	___	___
07		___	1	2	___	___	___	1	2	07	07	1	2	8	___	___	1	2	8	___	___	1	2	3	8	___	___

								For women age 15-49	For children age 0-4	For children age 0-17 years						For children age 0-14											
HL1. Line no.	HL2. Name	HL3. WHAT IS THE RELATIONSHIP OF (name) TO THE HEAD OF HOUSEHOLD?	HL4. IS (name) MALE OR FEMALE? 1 Male 2 Female	HL5. WHAT IS (name)'S DATE OF BIRTH?		HL6. HOW OLD IS (name)? <i>Record in completed years. If age is 95 or above, record '95'</i>	HL6A. DID (name) STAY HERE LAST NIGHT? 1 Yes 2 No	HL7. <i>Circle line no. if woman age 15-49</i>	HL7B. <i>Circle line no. if age 0-4</i>	HL11. IS (name)'S NATURAL MOTHER ALIVE? 1 Yes 2 No 8 DK HL13	HL12. DOES (name)'S NATURAL MOTHER LIVE IN THIS HOUSEHOLD? <i>If "Yes" Record line no. of mother and go to HL13</i> <i>Record 00 for "No"</i>	HL12A. WHERE DOES (name)'S NATURAL MOTHER LIVE? 1 In another household in this country 2 Institution in this country 3 Abroad 8 DK	HL13. IS (name)'S NATURAL FATHER ALIVE? 1 Yes 2 No 8 DK HL15	HL14. DOES (name)'S NATURAL FATHER LIVE IN THIS HOUSEHOLD? <i>If "Yes" Record line no. of father and go to HL15</i> <i>Record 00 for "No"</i>	HL14A. WHERE DOES (name)'S NATURAL FATHER LIVE? 1 In another household in this country 2 Institution in this country 3 Abroad 8 DK	HL15. <i>Record line no. of mother from HL12 if indicated. If HL12 is blank, or "00" ask:</i> WHO IS THE PRIMARY CARETAKER OF (name)?											
Line	Name	Relation*	M	F	Month	Year	Age	Y	N	15-49	0-4	Y	N	DK	Mother		Y	N	DK	Father		Mother					
08		___	1	2	___	___	___	1	2	08	08	1	2	8	___	___	1	2	8	___	___	1	2	3	8	___	___
09		___	1	2	___	___	___	1	2	09	09	1	2	8	___	___	1	2	8	___	___	1	2	3	8	___	___
10		___	1	2	___	___	___	1	2	10	10	1	2	8	___	___	1	2	8	___	___	1	2	3	8	___	___
11		___	1	2	___	___	___	1	2	11	11	1	2	8	___	___	1	2	8	___	___	1	2	3	8	___	___
12		___	1	2	___	___	___	1	2	12	12	1	2	8	___	___	1	2	8	___	___	1	2	3	8	___	___
13		___	1	2	___	___	___	1	2	13	13	1	2	8	___	___	1	2	8	___	___	1	2	3	8	___	___
14		___	1	2	___	___	___	1	2	14	14	1	2	8	___	___	1	2	8	___	___	1	2	3	8	___	___
15		___	1	2	___	___	___	1	2	15	15	1	2	8	___	___	1	2	8	___	___	1	2	3	8	___	___

Tick here if additional questionnaire used

Probe for additional household members.
 Probe especially for any infants or small children not listed, and others who may not be members of the family (such as servants, friends) but who usually live in the household.

Insert names of additional members in the household list and complete form accordingly.

*Now for each woman age 15-49 years, write her name and line number and other identifying information in the information panel of a separate Individual Women's Questionnaire.
 For each man age 15-49 years, write his name and line number and other identifying information in the information panel of a separate Individual Man's Questionnaire.
 For each child under age 5, write his/her name and line number AND the line number of his/her mother or caretaker in the information panel of a separate Under-5 Questionnaire.
 You should now have a separate questionnaire for each eligible woman, each eligible man, and each child under five in the household.*

* Codes for HL3 : Relationship to head of household:	01 Head	04 Son-In-Law / Daughter-In-Law	07 Parent-In-Law	10 Uncle / Aunt	13 Adopted / Foster/ Stepchild	96 Other (Not related)
	02 Spouse/Partner	05 Grandchild	08 Brother / Sister	11 Niece / Nephew	14 Servant (Live-in)	98 DK
	03 Son / Daughter	06 Parent	09 Brother-In-Law / Sister-In-Law	12 Other relative		

EDUCATION			ED										ED		
			For household members age 5 and above					For household members age 5-24 years							
ED1. Line number	ED2. Name and age <i>Copy from HL2 and HL6</i>		ED3. HAS (name) EVER ATTENDED SCHOOL OR PRE-SCHOOL?	ED4A. WHAT IS THE HIGHEST LEVEL OF SCHOOL (name) HAS ATTENDED?	ED4B. WHAT IS THE HIGHEST GRADE (name) COMPLETED AT THIS LEVEL?	ED5. DURING THE CURRENT SCHOOL YEAR THAT IS 2013 - 2014, DID (name) ATTEND SCHOOL OR PRESCHOOL AT ANY TIME?	ED6. DURING THIS/THAT SCHOOL YEAR, WHICH LEVEL AND GRADE IS/WAS (name) ATTENDING?		ED7. DURING THE PREVIOUS SCHOOL YEAR, THAT IS 2012-2013, DID (name) ATTEND SCHOOL OR PRESCHOOL AT ANY TIME?	ED8. DURING THAT PREVIOUS SCHOOL YEAR, WHICH LEVEL AND GRADE DID (name) ATTEND?					
			1 Yes 2 No ↘ Next Line	Level: 0 Preschool 1 Primary 2 Secondary 3 Higher 8 DK <i>If level=0, skip to ED5</i>	Grade: 98 DK <i>'If grade 1 is not completed at this level, enter "00"'</i>	1 Yes 2 No ↘ ED7	Level: 0 Preschool 1 Primary 2 Secondary 3 Higher 8 DK <i>If level=0, skip to ED7</i>	Grade: 98 DK	1 Yes 2 No ↘ Next Line 8 DK ↘ Next Line	Level: 0 Preschool 1 Primary 2 Secondary 3 Higher 8 DK <i>If level=0, go to next line'</i>	Grade: 98 DK				
Line	Name	Age	Yes No	Level	Grade	Yes No	Level	Grade	Yes No DK	Level	Grade				
01		___	1 2	0 1 2 3 8	___	1 2	0 1 2 3 8	___	1 2 8	0 1 2 3 8	___				
02		___	1 2	0 1 2 3 8	___	1 2	0 1 2 3 8	___	1 2 8	0 1 2 3 8	___				
03		___	1 2	0 1 2 3 8	___	1 2	0 1 2 3 8	___	1 2 8	0 1 2 3 8	___				
04		___	1 2	0 1 2 3 8	___	1 2	0 1 2 3 8	___	1 2 8	0 1 2 3 8	___				
05		___	1 2	0 1 2 3 8	___	1 2	0 1 2 3 8	___	1 2 8	0 1 2 3 8	___				
06		___	1 2	0 1 2 3 8	___	1 2	0 1 2 3 8	___	1 2 8	0 1 2 3 8	___				
07		___	1 2	0 1 2 3 8	___	1 2	0 1 2 3 8	___	1 2 8	0 1 2 3 8	___				
08		___	1 2	0 1 2 3 8	___	1 2	0 1 2 3 8	___	1 2 8	0 1 2 3 8	___				
09		___	1 2	0 1 2 3 8	___	1 2	0 1 2 3 8	___	1 2 8	0 1 2 3 8	___				
10		___	1 2	0 1 2 3 8	___	1 2	0 1 2 3 8	___	1 2 8	0 1 2 3 8	___				
11		___	1 2	0 1 2 3 8	___	1 2	0 1 2 3 8	___	1 2 8	0 1 2 3 8	___				

12		___	1 2	0 1 2 3 8	___	1 2	0 1 2 3 8	___	1 2 8	0 1 2 3 8	___
13		___	1 2	0 1 2 3 8	___	1 2	0 1 2 3 8	___	1 2 8	0 1 2 3 8	___
14		___	1 2	0 1 2 3 8	___	1 2	0 1 2 3 8	___	1 2 8	0 1 2 3 8	___
15		___	1 2	0 1 2 3 8	___	1 2	0 1 2 3 8	___	1 2 8	0 1 2 3 8	___

SELECTION OF ONE CHILD FOR CHILD LABOUR/CHILD DISCIPLINE					SL																																																																																															
SL1. Check HL6 in the List of Household Members and write the total number of children age 1-17 years.				Total number _ _																																																																																																
<p>SL2. Check the number of children age 1-17 years in SL1:</p> <p><input type="checkbox"/> Zero ⇒ Go to HOUSEHOLD CHARACTERISTICS module</p> <p><input type="checkbox"/> One ⇒ Go to SL9 and record the rank number as '1', enter the line number, child's name and age</p> <p><input type="checkbox"/> Two or more ⇒ Continue with SL2A</p>																																																																																																				
<p>SL2A. List each of the children age 1-17 years below in the order they appear in the List of Household Members. Do not include other household members outside of the age range 1-17 years. Record the line number, name, sex, and age for each child.</p>																																																																																																				
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">SL3. Rank number</th> <th style="width: 10%;">SL4. Line number from HL1</th> <th style="width: 30%;">SL5. Name from HL2</th> <th colspan="2" style="width: 15%;">SL6. Sex from HL4</th> <th style="width: 15%;">SL7. Age from HL6</th> </tr> <tr> <th>Rank</th> <th>Line</th> <th>Name</th> <th>M</th> <th>F</th> <th>Age</th> </tr> </thead> <tbody> <tr><td>1</td><td>_ _</td><td></td><td>1</td><td>2</td><td>_ _</td></tr> <tr><td>2</td><td>_ _</td><td></td><td>1</td><td>2</td><td>_ _</td></tr> <tr><td>3</td><td>_ _</td><td></td><td>1</td><td>2</td><td>_ _</td></tr> <tr><td>4</td><td>_ _</td><td></td><td>1</td><td>2</td><td>_ _</td></tr> <tr><td>5</td><td>_ _</td><td></td><td>1</td><td>2</td><td>_ _</td></tr> <tr><td>6</td><td>_ _</td><td></td><td>1</td><td>2</td><td>_ _</td></tr> <tr><td>7</td><td>_ _</td><td></td><td>1</td><td>2</td><td>_ _</td></tr> <tr><td>8</td><td>_ _</td><td></td><td>1</td><td>2</td><td>_ _</td></tr> </tbody> </table>						SL3. Rank number	SL4. Line number from HL1	SL5. Name from HL2	SL6. Sex from HL4		SL7. Age from HL6	Rank	Line	Name	M	F	Age	1	_ _		1	2	_ _	2	_ _		1	2	_ _	3	_ _		1	2	_ _	4	_ _		1	2	_ _	5	_ _		1	2	_ _	6	_ _		1	2	_ _	7	_ _		1	2	_ _	8	_ _		1	2	_ _																																			
SL3. Rank number	SL4. Line number from HL1	SL5. Name from HL2	SL6. Sex from HL4		SL7. Age from HL6																																																																																															
Rank	Line	Name	M	F	Age																																																																																															
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7	_ _		1	2	_ _																																																																																															
8	_ _		1	2	_ _																																																																																															
<p>SL8. Check the last digit of the household number (HH2) from the cover page. This is the number of the row you should go to in the table below.</p> <p>Check the total number of children age 1-17 years in SL1 above. This is the number of the column you should go to in the table below</p> <p>Find the box where the row and the column meet and circle the number that appears in the box. This is the rank number (SL3) of the selected child.</p>																																																																																																				
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2" style="width: 15%;">Last Digit of Household Number (from HH2)</th> <th colspan="7">Total Number of Eligible Children in the Household (from SL1)</th> </tr> <tr> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> <th>8+</th> </tr> </thead> <tbody> <tr><td>0</td><td>2</td><td>2</td><td>4</td><td>3</td><td>6</td><td>5</td><td>4</td></tr> <tr><td>1</td><td>1</td><td>3</td><td>1</td><td>4</td><td>1</td><td>6</td><td>5</td></tr> <tr><td>2</td><td>2</td><td>1</td><td>2</td><td>5</td><td>2</td><td>7</td><td>6</td></tr> <tr><td>3</td><td>1</td><td>2</td><td>3</td><td>1</td><td>3</td><td>1</td><td>7</td></tr> <tr><td>4</td><td>2</td><td>3</td><td>4</td><td>2</td><td>4</td><td>2</td><td>8</td></tr> <tr><td>5</td><td>1</td><td>1</td><td>1</td><td>3</td><td>5</td><td>3</td><td>1</td></tr> <tr><td>6</td><td>2</td><td>2</td><td>2</td><td>4</td><td>6</td><td>4</td><td>2</td></tr> <tr><td>7</td><td>1</td><td>3</td><td>3</td><td>5</td><td>1</td><td>5</td><td>3</td></tr> <tr><td>8</td><td>2</td><td>1</td><td>4</td><td>1</td><td>2</td><td>6</td><td>4</td></tr> <tr><td>9</td><td>1</td><td>2</td><td>1</td><td>2</td><td>3</td><td>7</td><td>5</td></tr> </tbody> </table>						Last Digit of Household Number (from HH2)	Total Number of Eligible Children in the Household (from SL1)							2	3	4	5	6	7	8+	0	2	2	4	3	6	5	4	1	1	3	1	4	1	6	5	2	2	1	2	5	2	7	6	3	1	2	3	1	3	1	7	4	2	3	4	2	4	2	8	5	1	1	1	3	5	3	1	6	2	2	2	4	6	4	2	7	1	3	3	5	1	5	3	8	2	1	4	1	2	6	4	9	1	2	1	2	3	7	5
Last Digit of Household Number (from HH2)	Total Number of Eligible Children in the Household (from SL1)																																																																																																			
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2	2	1	2	5	2	7	6																																																																																													
3	1	2	3	1	3	1	7																																																																																													
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5	1	1	1	3	5	3	1																																																																																													
6	2	2	2	4	6	4	2																																																																																													
7	1	3	3	5	1	5	3																																																																																													
8	2	1	4	1	2	6	4																																																																																													
9	1	2	1	2	3	7	5																																																																																													
SL9. Record the rank number (SL3), line number (SL4), name (SL5) and age (SL7) of the selected child				Rank number _ _																																																																																																
				Line number _ _																																																																																																

	Name _____ Age _ _
--	-----------------------------

CHILD LABOUR		CL															
CL1. Check selected child's age from SL9: <input type="checkbox"/> 1-4 years ⇒ Go to Next Module <input type="checkbox"/> 5-17 years ⇒ Continue with CL2																	
CL2. NOW I WOULD LIKE TO ASK ABOUT ANY WORK CHILDREN IN THIS HOUSEHOLD MAY DO. SINCE LAST (<i>day of the week</i>), DID (<i>name</i>) DO ANY OF THE FOLLOWING ACTIVITIES, EVEN FOR ONLY ONE HOUR? [A] DID (<i>name</i>) DO ANY WORK OR HELP ON HIS/HER OWN OR THE HOUSEHOLD'S PLOT/FARM/FOOD GARDEN OR LOOKED AFTER ANIMALS? FOR EXAMPLE, GROWING FARM PRODUCE, HARVESTING, OR FEEDING, GRAZING, MILKING ANIMALS? [B] DID (<i>name</i>) HELP IN FAMILY BUSINESS OR RELATIVE'S BUSINESS WITH OR WITHOUT PAY, OR RUN HIS/HER OWN BUSINESS? [C] DID (<i>name</i>) PRODUCE OR SELL ARTICLES, HANDICRAFTS, CLOTHES, FOOD OR AGRICULTURAL PRODUCTS? [D] SINCE LAST (<i>day of the week</i>), DID (<i>name</i>) ENGAGE IN ANY OTHER ACTIVITY IN RETURN FOR INCOME IN CASH OR IN KIND, EVEN FOR ONLY ONE HOUR? If "No", Probe: PLEASE INCLUDE ANY ACTIVITY (<i>name</i>) PERFORMED AS A REGULAR OR CASUAL EMPLOYEE, SELF-EMPLOYED OR EMPLOYER; OR AS AN UNPAID FAMILY WORKER HELPING OUT IN HOUSEHOLD BUSINESS OR FARM.	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;"></th> <th style="width: 10%; text-align: center;">Yes</th> <th style="width: 10%; text-align: center;">No</th> </tr> </thead> <tbody> <tr> <td>Worked on plot/farm/food garden/looked after animals.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Helped in family/relative's business/ran own business.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Produce/sell articles/handicrafts/clothes/food or agricultural products</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Any other activity</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> </tbody> </table>		Yes	No	Worked on plot/farm/food garden/looked after animals.....	1	2	Helped in family/relative's business/ran own business.....	1	2	Produce/sell articles/handicrafts/clothes/food or agricultural products	1	2	Any other activity	1	2	
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Any other activity	1	2															
CL3. Check CL2, A to D <input type="checkbox"/> There is at least one 'Yes' ⇒ continue with CL4 <input type="checkbox"/> All answers are 'No' ⇒ Go to CL8																	
CL4. SINCE LAST (<i>day of the week</i>) ABOUT HOW MANY HOURS DID (<i>name</i>) ENGAGE IN THIS ACTIVITY/THESE ACTIVITIES, IN TOTAL? <i>'if less than one hour, record "00"</i>	Number of hours ____																
CL5. DOES THE ACTIVITY/DO THESE ACTIVITIES REQUIRE CARRYING HEAVY LOADS?	Yes 1 No 2	1 ⇒ CL8															
CL6. DOES THE ACTIVITY/DO THESE ACTIVITIES REQUIRE WORKING WITH DANGEROUS TOOLS	Yes 1 No 2	1 ⇒ CL8															

(KNIVES ETC.) OR OPERATING HEAVY MACHINERY?		
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<p>CL7. HOW WOULD YOU DESCRIBE THE WORK ENVIRONMENT OF (name)?</p> <p>[A] IS (name) EXPOSED TO DUST, FUMES OR GAS?</p> <p>[B] IS (name) EXPOSED TO EXTREME COLD, HEAT OR HUMIDITY?</p> <p>[C] IS (name) EXPOSED TO LOUD NOISE OR VIBRATION?</p> <p>[D] IS (name) REQUIRED TO WORK AT HEIGHTS?</p> <p>[E] IS (name) REQUIRED TO WORK WITH CHEMICALS (PESTICIDES, GLUES, ETC.) OR EXPLOSIVES?</p> <p>[F] IS (name) EXPOSED TO OTHER THINGS, PROCESSES OR CONDITIONS BAD FOR (name)'S HEALTH OR SAFETY?</p>	<p>Yes 1</p> <p>No 2</p>	<p>1 ⇒ CL8</p>
<p>CL8. SINCE LAST (day of the week), DID (name) FETCH WATER OR COLLECT FIREWOOD FOR HOUSEHOLD USE?</p>	<p>Yes 1</p> <p>No 2</p>	<p>2 ⇒ CL10</p>
<p>CL9. IN TOTAL, HOW MANY HOURS DID (name) SPEND ON FETCHING WATER OR COLLECTING FIREWOOD FOR HOUSEHOLD USE, SINCE LAST (day of the week)?</p> <p><i>If less than one hour, record "00"</i></p>	<p>Number of hours _ _</p>	
<p>CL10. SINCE LAST (day of the week), DID (name) DO ANY OF THE FOLLOWING FOR THIS HOUSEHOLD?</p> <p>[A] SHOPPING FOR HOUSEHOLD?</p> <p>[B] REPAIR ANY HOUSEHOLD EQUIPMENT?</p> <p>[C] COOKING OR CLEANING UTENSILS OR THE HOUSE?</p> <p>[D] WASHING CLOTHES?</p> <p>[E] CARING FOR CHILDREN?</p> <p>[F] CARING FOR THE OLD OR SICK?</p> <p>[G] OTHER HOUSEHOLD TASKS?</p>	<p>Yes No</p> <p>Shopping for household 1 2</p> <p>Repair household equipment 1 2</p> <p>Cooking/cleaning utensils/house 1 2</p> <p>Washing clothes 1 2</p> <p>Caring for children 1 2</p> <p>Caring for old/sick 1 2</p> <p>Other household tasks 1 2</p>	

<p>CL11. Check CL10, A to G</p> <p><input type="checkbox"/> There is at least one 'Yes' ⇒ Continue with CL12</p> <p><input type="checkbox"/> All answers are 'No' ⇒ Go to Next Module</p>		
<p>CL12. SINCE LAST (<i>day of the week</i>), ABOUT HOW MANY HOURS DID (<i>name</i>) ENGAGE IN THIS ACTIVITY/THESE ACTIVITIES, IN TOTAL? <i>If less than one hour, record "00</i></p>	<p>Number of hours ____</p>	

CHILD DISCIPLINE		CD																																				
CD1. Check selected child's age from SL9: <input type="checkbox"/> 1-14 years ⇒ Continue with CD2 <input type="checkbox"/> 15-17 years ⇒ Go to Next Module																																						
CD2. Write the line number and name of the child from SL9.	Line number ____ Name																																					
CD3. ADULTS USE CERTAIN WAYS TO TEACH CHILDREN THE RIGHT BEHAVIOUR OR TO ADDRESS A BEHAVIOUR PROBLEM. I WILL READ VARIOUS METHODS THAT ARE USED. PLEASE TELL ME IF <u>YOU OR ANYONE ELSE IN YOUR HOUSEHOLD</u> HAS USED THIS METHOD WITH <u>(name)</u> IN THE PAST MONTH.	<table border="0"> <thead> <tr> <th></th> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr> <td>[A] TOOK AWAY PRIVILEGES, FORBADE SOMETHING (name) LIKED OR DID NOT ALLOW HIM/HER TO LEAVE THE HOUSE.</td> <td>1</td> <td>2</td> </tr> <tr> <td>[B] EXPLAINED WHY (name)'S BEHAVIOUR WAS WRONG.</td> <td>1</td> <td>2</td> </tr> <tr> <td>[C] SHOOK HIM/HER.</td> <td>1</td> <td>2</td> </tr> <tr> <td>[D] SHOUTED, YELLED AT OR SCREAMED AT HIM/HER.</td> <td>1</td> <td>2</td> </tr> <tr> <td>[E] GAVE HIM/HER SOMETHING ELSE TO DO.</td> <td>1</td> <td>2</td> </tr> <tr> <td>[F] SPANKED, HIT OR SLAPPED HIM/HER ON THE BOTTOM WITH BARE HAND.</td> <td>1</td> <td>2</td> </tr> <tr> <td>[G] HIT HIM/HER ON THE BOTTOM OR ELSEWHERE ON THE BODY WITH SOMETHING LIKE A BELT, HAIRBRUSH, STICK OR OTHER HARD OBJECT.</td> <td>1</td> <td>2</td> </tr> <tr> <td>[H] CALLED HIM/HER DUMB, LAZY, OR ANOTHER NAME LIKE THAT.</td> <td>1</td> <td>2</td> </tr> <tr> <td>[I] HIT OR SLAPPED HIM/HER ON THE FACE, HEAD OR EARS.</td> <td>1</td> <td>2</td> </tr> <tr> <td>[J] HIT OR SLAPPED HIM/HER ON THE HAND, ARM, OR LEG.</td> <td>1</td> <td>2</td> </tr> <tr> <td>[K] BEAT HIM/HER UP, THAT IS HIT HIM/HER OVER AND OVER AS HARD AS ONE COULD.</td> <td>1</td> <td>2</td> </tr> </tbody> </table>		Yes	No	[A] TOOK AWAY PRIVILEGES, FORBADE SOMETHING (name) LIKED OR DID NOT ALLOW HIM/HER TO LEAVE THE HOUSE.	1	2	[B] EXPLAINED WHY (name)'S BEHAVIOUR WAS WRONG.	1	2	[C] SHOOK HIM/HER.	1	2	[D] SHOUTED, YELLED AT OR SCREAMED AT HIM/HER.	1	2	[E] GAVE HIM/HER SOMETHING ELSE TO DO.	1	2	[F] SPANKED, HIT OR SLAPPED HIM/HER ON THE BOTTOM WITH BARE HAND.	1	2	[G] HIT HIM/HER ON THE BOTTOM OR ELSEWHERE ON THE BODY WITH SOMETHING LIKE A BELT, HAIRBRUSH, STICK OR OTHER HARD OBJECT.	1	2	[H] CALLED HIM/HER DUMB, LAZY, OR ANOTHER NAME LIKE THAT.	1	2	[I] HIT OR SLAPPED HIM/HER ON THE FACE, HEAD OR EARS.	1	2	[J] HIT OR SLAPPED HIM/HER ON THE HAND, ARM, OR LEG.	1	2	[K] BEAT HIM/HER UP, THAT IS HIT HIM/HER OVER AND OVER AS HARD AS ONE COULD.	1	2	
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CD4. DO YOU BELIEVE THAT IN ORDER TO BRING UP, RAISE, OR EDUCATE A CHILD PROPERLY,	Yes1 No2																																					

THE CHILD NEEDS TO BE PHYSICALLY PUNISHED?	DK / No opinion8	
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HOUSEHOLD CHARACTERISTICS		HC
HC1A. WHAT IS THE RELIGION OF THE HEAD OF THIS HOUSEHOLD?	Catholic..... 1	
	Other Christian 2	
	Muslim 3	
	Traditional..... 4	
	Other religion (<i>specify</i>) _____ 6	
	No religion 7	
HC1B. WHAT IS THE MOTHER TONGUE/NATIVE LANGUAGE OF THE HEAD OF THIS HOUSEHOLD?	Luhya 1	
	Turkana 2	
	Swahili 3	
	Other language (<i>specify</i>) _____ 6	
HC1C. TO WHAT ETHNIC GROUP DOES THE HEAD OF THIS HOUSEHOLD BELONG?	Luhya 1	
	Turkana 2	
	Other ethnic group (<i>specify</i>) _____ 6	
HC2. HOW MANY ROOMS IN THIS HOUSEHOLD ARE USED FOR SLEEPING?	Number of rooms..... _ _	
HC3. <i>Main material of the dwelling floor.</i> 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 (<i>specify</i>) _____ 96		
HC4. <i>Main material of the roof.</i> Record observation.	Natural roofing	
	No Roof..... 11	
	Thatch / Palm leaf..... 12	
	Sod 13	
	Rudimentary roofing	
	Rustic mat..... 21	
	Palm / Bamboo 22	
	Wood planks 23	
	Cardboard..... 24	
	Finished roofing	
	Metal/Tin 31	
	Wood 32	
	Calamine / Cement fibre..... 33	
	Ceramic tiles 34	
	Cement 35	
	Roofing shingles 36	
Other (<i>specify</i>) _____ 96		

<p>HC5. Main material of the exterior walls.</p> <p><i>Record observation.</i></p>	<p>Natural walls</p> <p>No walls11</p> <p>Cane / Palm / Trunks12</p> <p>Dirt13</p> <p>Rudimentary walls</p> <p>Bamboo with mud21</p> <p>Stone with mud22</p> <p>Uncovered adobe23</p> <p>Plywood24</p> <p>Cardboard25</p> <p>Reused wood26</p> <p>Finished walls</p> <p>Cement31</p> <p>Stone with lime / cement32</p> <p>Bricks33</p> <p>Cement blocks34</p> <p>Covered adobe35</p> <p>Wood planks / shingles36</p> <p>Other (<i>specify</i>) _____ 96</p>																						
<p>HC6. WHAT TYPE OF FUEL DOES YOUR HOUSEHOLD MAINLY USE FOR COOKING?</p>	<p>Electricity01</p> <p>Liquefied Petroleum Gas (LPG)02</p> <p>Natural gas03</p> <p>Biogas04</p> <p>Kerosene05</p> <p>Coal / Lignite06</p> <p>Charcoal07</p> <p>Wood08</p> <p>Straw / Shrubs / Grass09</p> <p>Animal dung10</p> <p>Agricultural crop residue11</p> <p>No food cooked in household95</p> <p>Other (<i>specify</i>) _____ 96</p>	<p>01⇒HC8</p> <p>02⇒HC8</p> <p>03⇒HC8</p> <p>04⇒HC8</p> <p>05⇒HC8</p> <p>95⇒HC8</p>																					
<p>HC7. IS THE COOKING USUALLY DONE IN THE HOUSE, IN A SEPARATE BUILDING, OR OUTDOORS?</p> <p><i>If 'In the house', probe: IS IT DONE IN A SEPARATE ROOM USED AS A KITCHEN?</i></p>	<p>In the house</p> <p>In a separate room used as kitchen1</p> <p>Elsewhere in the house2</p> <p>In a separate building3</p> <p>Outdoors4</p> <p>Other (<i>specify</i>) _____ 6</p>																						
<p>HC8. DOES YOUR HOUSEHOLD HAVE:</p> <p>[A] ELECTRICITY?</p> <p>[B] A RADIO?</p> <p>[C] A TELEVISION?</p> <p>[D] A NON-MOBILE TELEPHONE?</p> <p>[E] A REFRIGERATOR?</p> <p>[F] SOLAR PANEL</p>	<table border="0"> <thead> <tr> <th></th> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr> <td>Electricity</td> <td>1</td> <td>2</td> </tr> <tr> <td>Radio</td> <td>1</td> <td>2</td> </tr> <tr> <td>Television</td> <td>1</td> <td>2</td> </tr> <tr> <td>Non-mobile telephone</td> <td>1</td> <td>2</td> </tr> <tr> <td>Refrigerator.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>Solar Panel.....</td> <td>1</td> <td>2</td> </tr> </tbody> </table>		Yes	No	Electricity	1	2	Radio	1	2	Television	1	2	Non-mobile telephone	1	2	Refrigerator.....	1	2	Solar Panel.....	1	2	
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<p>[G] CHAIR</p> <p>[H] SOFA SET</p> <p>[I] TABLE</p> <p>[J] CUPBOARD</p> <p>[K] BED</p> <p>[L] CLOCK</p> <p>[M] CAMERA</p> <p>[N] COMPUTER</p>	<p>Chair1 2</p> <p>Sofa set1 2</p> <p>Table.....1 2</p> <p>Cupboard.....1 2</p> <p>Bed1 2</p> <p>Clock.....1 2</p> <p>Camera.....1 2</p> <p>Computer1 2</p>																									
<p>HC9. DOES ANY MEMBER OF YOUR HOUSEHOLD OWN:</p> <p>[A] A WATCH?</p> <p>[B] A MOBILE TELEPHONE?</p> <p>[C] A BICYCLE?</p> <p>[D] A MOTORCYCLE OR SCOOTER?</p> <p>[E] AN ANIMAL-DRAWN CART?</p> <p>[F] A CAR OR TRUCK?</p> <p>[G] A BOAT WITH A MOTOR?</p>	<table style="width:100%; border:none;"> <tr> <td></td> <td style="text-align:right;">Yes</td> <td style="text-align:right;">No</td> </tr> <tr> <td>Watch</td> <td style="text-align:right;">1</td> <td style="text-align:right;">2</td> </tr> <tr> <td>Mobile telephone</td> <td style="text-align:right;">1</td> <td style="text-align:right;">2</td> </tr> <tr> <td>Bicycle</td> <td style="text-align:right;">1</td> <td style="text-align:right;">2</td> </tr> <tr> <td>Motorcycle / Scooter</td> <td style="text-align:right;">1</td> <td style="text-align:right;">2</td> </tr> <tr> <td>Animal-drawn cart.....</td> <td style="text-align:right;">1</td> <td style="text-align:right;">2</td> </tr> <tr> <td>Car / Truck.....</td> <td style="text-align:right;">1</td> <td style="text-align:right;">2</td> </tr> <tr> <td>Boat with motor.....</td> <td style="text-align:right;">1</td> <td style="text-align:right;">2</td> </tr> </table>		Yes	No	Watch	1	2	Mobile telephone	1	2	Bicycle	1	2	Motorcycle / Scooter	1	2	Animal-drawn cart.....	1	2	Car / Truck.....	1	2	Boat with motor.....	1	2	
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<p>HC10. DO YOU OR SOMEONE LIVING IN THIS HOUSEHOLD OWN THIS DWELLING?</p> <p><i>If "No", then ask: DO YOU RENT THIS DWELLING FROM SOMEONE NOT LIVING IN THIS HOUSEHOLD?</i></p> <p><i>If "Rented from someone else", circle "2". For other responses, circle "6".</i></p>	<p>Own1</p> <p>Rent2</p> <p>Other (<i>specify</i>) _____ 6</p>																									
<p>HC11. DOES ANY MEMBER OF THIS HOUSEHOLD OWN ANY LAND THAT CAN BE USED FOR AGRICULTURE?</p>	<p>Yes1</p> <p>No2</p>	<p>2⇒HC13</p>																								
<p>HC12. HOW MANY HECTARES OF AGRICULTURAL LAND DO MEMBERS OF THIS HOUSEHOLD OWN?</p> <p><i>If less than 1, record "00". If 95 or more, record '95'. If unknown, record '98'.</i></p>	<p>Hectares — —</p>																									
<p>HC13. DOES THIS HOUSEHOLD OWN ANY LIVESTOCK, HERDS, OTHER FARM ANIMALS, OR POULTRY?</p>	<p>Yes1</p> <p>No2</p>	<p>2⇒HC15</p>																								
<p>HC14. HOW MANY OF THE FOLLOWING ANIMALS DOES THIS HOUSEHOLD HAVE?</p> <p>[A] CATTLE, MILK COWS, OR BULLS?</p>	<p>Cattle, milk cows, or bulls — —</p>																									

<p>[B] HORSES, DONKEYS, OR MULES?</p> <p>[C] GOATS?</p> <p>[D] SHEEP?</p> <p>[E] CHICKENS?</p> <p>[F] PIGS?</p> <p>[G] CAMELS</p> <p><i>If none, record '00'. If 95 or more, record '95'. If unknown, record '98'.</i></p>	<p>Horses, donkeys, or mules__ __</p> <p>Goats__ __</p> <p>Sheep__ __</p> <p>Chickens__ __</p> <p>Pigs__ __</p> <p>Camels__ __</p>	
<p>HC15. DOES ANY MEMBER OF THIS HOUSEHOLD HAVE A BANK ACCOUNT?</p>	<p>Yes 1</p> <p>No 2</p> <p>Dk 8</p>	

INSECTICIDE TREATED NETS		TN
TN1. DOES YOUR HOUSEHOLD HAVE ANY MOSQUITO NETS THAT CAN BE USED WHILE SLEEPING?	Yes 1 No 2	2⇒Next Module
TN2. HOW MANY MOSQUITO NETS DOES YOUR HOUSEHOLD HAVE?	Number of nets ____ ____	
TN3. Ask the respondent to show you the nets in the household. If more than 3 nets, use additional questionnaire(s).		

	1 st Net	2 nd Net	3 rd Net
TN4. Mosquito net observed?	Observed 1 Not observed..... 2	Observed..... 1 Not observed 2	Observed 1 Not observed 2
TN5. Observe or ask the brand/type of mosquito net. <i>If brand is unknown and you cannot observe the net, show pictures of typical net types/brands to respondent.</i>	Long-lasting treated nets Perma Net..... 11 Olyset..... 12 Supernet 13 Other (<i>specify</i>)..... 16 DK brand..... 18 Pre-treated nets Supanet 21 Other (<i>specify</i>) 26 DK brand..... 28 Other net (<i>specify</i>) 36 DK brand / type 98	Long-lasting treated nets Perma Net 11 Olyset..... 12 Supernet..... 13 Other (<i>specify</i>) 16 DK brand..... 18 Pre-treated nets Supanet..... 21 Other (<i>specify</i>) 26 DK brand..... 28 Other net (<i>specify</i>) 36 DK brand / type 98	Long-lasting treated nets Perma Net 11 Olyset 12 Supernet..... 13 Other (<i>specify</i>) 16 DK brand 18 Pre-treated nets Supanet 21 Other (<i>specify</i>) 26 DK brand 28 Other net (<i>specify</i>) 36 DK brand / type 98
TN6. HOW MANY MONTHS AGO DID YOUR HOUSEHOLD GET THE MOSQUITO NET?	Months ago ____ ____ More than 36 mo. ago ... 95	Months ago..... ____ ____ More than 36 mo. ago ... 95	Months ago ____ ____ More than 36 mo. ago... 95

<p>TN10. HOW MANY MONTHS AGO WAS THE NET LAST SOAKED OR DIPPED?</p> <p><i>If less than one month, record "00"</i></p>	<p>Months ago ____ ____</p> <p>More than 24 mo. ago ... 95</p> <p>DK / Not sure..... 98</p>	<p>Months ago..... ____ ____</p> <p>More than 24 mo. ago ...95</p> <p>DK / Not sure..... 98</p>	<p>Months ago ____ ____</p> <p>More than 24 mo. ago... 95</p> <p>DK / Not sure 98</p>
<p>TN11. DID ANYONE SLEEP UNDER THIS MOSQUITO NET LAST NIGHT?</p>	<p>Yes..... 1</p> <p>No 2</p> <p style="text-align: right;">⇒ TN13</p> <p>DK / Not sure..... 8</p> <p style="text-align: right;">⇒ TN13</p>	<p>Yes 1</p> <p>No..... 2</p> <p style="text-align: right;">⇒ TN13</p> <p>DK / Not sure..... 8</p> <p style="text-align: right;">⇒ TN13</p>	<p>Yes..... 1</p> <p>No 2</p> <p style="text-align: right;">⇒ TN13</p> <p>DK / Not sure 8</p> <p style="text-align: right;">⇒ TN13</p>
<p>TN12. WHO SLEPT UNDER THIS MOSQUITO NET LAST NIGHT?</p> <p><i>Record the person's line number from the List of Household Members</i></p> <p><i>If someone not in the List of Household Members slept under the mosquito net, record "00"</i></p>	<p>Name _____</p> <p>Line number ____ ____</p>	<p>Name _____</p> <p>Line number ____ ____</p>	<p>Name _____</p> <p>Line number ____ ____</p>

TN13.	<i>Go back to TN4 for next net. If no more nets, go to next module</i>	<i>Go back to TN4 for next net. If no more nets, go to next module</i>	<i>Go back to TN4 in first column of a new questionnaire for next net. If no more nets, go to next module</i>
			<i>Tick here if additional questionnaire used</i> <input type="checkbox"/>

INDOOR RESIDUAL SPRAYING		IR
IR1. AT ANY TIME IN THE PAST 12 MONTHS, HAS ANYONE COME INTO YOUR DWELLING TO SPRAY THE INTERIOR WALLS AGAINST MOSQUITOES?	Yes 1 No 2 DK..... 8	2⇒Next Module 8⇒Next Module
IR2. WHO SPRAYED THE DWELLING? <i>Circle all that apply.</i>	Government worker / program A Private company..... B Non-governmental organization C Other (<i>specify</i>) _____ X DK..... Z	

WATER AND SANITATION		WS
WS1. WHAT IS THE <u>MAIN</u> SOURCE OF DRINKING WATER FOR MEMBERS OF YOUR HOUSEHOLD?	Piped water	
	Piped into dwelling.....11	11⇒WS6
	Piped into compound, yard or plot.....12	12⇒WS6
	Piped to neighbour.....13	13⇒WS6
	Public tap / standpipe14	14⇒WS3
	Tube Well, Borehole21	21⇒WS3
	Dug well	
	Protected well31	31⇒WS3
	Unprotected well32	32⇒WS3
	Water from spring	
	Protected spring.....41	41⇒WS3
	Unprotected spring42	42⇒WS3
	Rainwater collection51	51⇒WS3
	Tanker-truck.....61	61⇒WS3
Cart with small tank / drum71	71⇒WS3	
Surface water (river, stream, dam, lake, pond, canal, irrigation channel)81	81⇒WS3	
Bottled water.....91		
Other (<i>specify</i>)96	96⇒WS3	
WS2. WHAT IS THE <u>MAIN</u> SOURCE OF WATER USED BY YOUR HOUSEHOLD FOR OTHER PURPOSES SUCH AS COOKING AND HANDWASHING?	Piped water	
	Piped into dwelling.....11	11⇒WS6
	Piped into compound, yard or plot.....12	12⇒WS6
	Piped to neighbour.....13	13⇒WS6
	Public tap / standpipe14	
	Tube Well, Borehole21	
	Dug well	
	Protected well31	
	Unprotected well32	
	Water from spring	
Protected spring.....41		
Unprotected spring42		

	Rainwater collection51 Tanker-truck.....61 Cart with small tank / drum71 Surface water (river, stream, dam, lake, pond, canal, irrigation channel)81 Other (<i>specify</i>) _____96	
WS3. WHERE IS THAT WATER SOURCE LOCATED?	In own dwelling1 In own yard / plot2 Elsewhere3	1⇒WS6 2⇒WS6
WS4. HOW LONG DOES IT TAKE TO GO THERE, GET WATER, AND COME BACK?	Number of minutes _ _ _ _ DK.....998	

<p>WS5. WHO USUALLY GOES TO THIS SOURCE TO COLLECT THE WATER FOR YOUR HOUSEHOLD?</p> <p><i>Probe:</i> IS THIS PERSON UNDER AGE 15? WHAT SEX?</p>	<p>Adult woman (age 15+ years)1 Adult man (age 15+ years)2 Female child (under 15).....3 Male child (under 15).....4 DK.....8</p>	
<p>WS6. DO YOU DO ANYTHING TO THE WATER TO MAKE IT SAFER TO DRINK?</p>	<p>Yes.....1 No2 DK.....8</p>	<p>2⇒WS8 8⇒WS8</p>
<p>WS7. WHAT DO YOU USUALLY DO TO MAKE THE WATER SAFER TO DRINK?</p> <p><i>Probe:</i> ANYTHING ELSE?</p> <p><i>Record all items mentioned.</i></p>	<p>Boil..... A Add bleach / chlorine B Strain it through a cloth..... C Use water filter (ceramic, sand, composite, etc.) D Solar disinfection E Let it stand and settle F Other (<i>specify</i>) _____ X DK..... Z</p>	
<p>WS8. WHAT KIND OF TOILET FACILITY DO MEMBERS OF YOUR HOUSEHOLD USUALLY USE?</p> <p><i>If “flush” or “pour flush”, probe:</i> WHERE DOES IT FLUSH TO?</p> <p><i>If not possible to determine, ask permission to observe the facility.</i></p>	<p>Flush / Pour flush Flush to piped sewer system11 Flush to septic tank.....12 Flush to pit (latrine)13 Flush to somewhere else.....14 Flush to unknown place / Not sure / DK where 15 Pit latrine Ventilated Improved Pit latrine (VIP)21 Pit latrine with slab.....22 Pit latrine without slab / Open pit.....23 Composting toilet.....31 Bucket.....41</p>	

	Hanging toilet, Hanging latrine51 No facility, Bush, Field95 Other (<i>specify</i>) _____ 96	95⇒Next Module
WS9. DO YOU SHARE THIS FACILITY WITH OTHERS WHO ARE NOT MEMBERS OF YOUR HOUSEHOLD?	Yes.....1 No2	2⇒Next Module
WS10. DO YOU SHARE THIS FACILITY ONLY WITH MEMBERS OF OTHER HOUSEHOLDS THAT YOU KNOW, OR IS THE FACILITY OPEN TO THE USE OF THE GENERAL PUBLIC?	Other households only (not public).....1 Public facility2	2⇒Next Module
WS11. HOW MANY HOUSEHOLDS IN TOTAL USE THIS TOILET FACILITY, INCLUDING YOUR OWN HOUSEHOLD?	Number of households (if less than 10) 0 __ Ten or more households.....10 DK.....98	

HANDWASHING		HW
<p>HW1. WE WOULD LIKE TO LEARN ABOUT THE PLACES THAT HOUSEHOLDS USE TO WASH THEIR HANDS.</p> <p>CAN YOU PLEASE SHOW ME WHERE MEMBERS OF YOUR HOUSEHOLD <u>MOST OFTEN</u> WASH THEIR HANDS?</p>	<p>Observed..... 1</p> <p>Not observed</p> <p>Moving basin/kettle/bucket..... 2</p> <p>Not in dwelling / plot / yard 3</p> <p>No permission to see..... 4</p> <p>Other reason (specify) _____ 6</p>	<p>2 ⇨HW4</p> <p>3 ⇨HW4</p> <p>4 ⇨HW4</p> <p>6 ⇨HW4</p>
<p>HW2. <i>Observe presence of water at the place for handwashing.</i></p> <p><i>Verify by checking the tap/pump, or basin, bucket, water container or similar objects for presence of water.</i></p>	<p>Water is available 1</p> <p>Water is not available 2</p>	
<p>HW3A. <i>Is soap, detergent or ash/mud/sand present at the place for handwashing?</i></p>	<p>Yes, present 1</p> <p>No, not present..... 2</p>	<p>2⇨HW4</p>
<p>HW3B. <i>Record your observation.</i></p> <p><i>Circle all that apply.</i></p>	<p>Bar soap A</p> <p>Detergent (Powder / Liquid / Paste) B</p> <p>Liquid soap C</p> <p>Ash / Mud / Sand..... D</p>	<p>A⇨HH19</p> <p>B⇨HH19</p> <p>C⇨HH19</p> <p>D⇨HH19</p>
<p>HW4. DO YOU HAVE ANY SOAP OR DETERGENT OR ASH/MUD/SAND IN YOUR HOUSE FOR WASHING HANDS?</p>	<p>Yes 1</p>	

	No..... 2	2⇒HH19
HW5A. CAN YOU PLEASE SHOW IT TO ME?	Yes, shown..... 1	
	No, not shown 2	2⇒HH19
HW5B. <i>Record your observation.</i> <i>Circle all that apply.</i>	Bar soap.....A	
	Detergent (Powder / Liquid / Paste)B	
	Liquid soap C	
	Ash / Mud / Sand..... D	

HH19. <i>Record the time.</i>	Hour and minutes _ _ : _ _	
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SALT IODIZATION	SI
<p>SI1. WE WOULD LIKE TO CHECK WHETHER THE SALT USED IN YOUR HOUSEHOLD IS IODIZED. MAY I HAVE A SAMPLE OF THE SALT USED TO <u>COOK MEALS</u> IN YOUR HOUSEHOLD?</p> <p><i>Once you have tested the salt, circle number that corresponds to test outcome.</i></p>	<p>Not iodized - 0 PPM1 More than 0 PPM & less than 15 PPM2 15 PPM or more.....3</p> <p>No salt in the house4</p> <p>Salt not tested (specify reason) _____ 5</p>

HH20. *Thank the respondent for his/her cooperation and check the List of Household Members:*

A separate QUESTIONNAIRE FOR INDIVIDUAL WOMEN has been issued for each woman age 15-49 years in the List of Household Members (HL7)

A separate QUESTIONNAIRE FOR CHILDREN UNDER FIVE has been issued for each child under age 5 years in the List of Household Members (HL7B)

Return to the cover page and make sure that all information is entered, including the number of eligible women (HH12) and under-5s (HH14)

Make arrangements for the administration of the remaining questionnaire(s) in this household.

Interviewer's Observations

Field Editor's Observations

Supervisor's Observations

A large, empty rectangular box with a black border, intended for the supervisor to provide observations. The box is currently blank.

QUESTIONNAIRE FOR INDIVIDUAL WOMEN WESTERN AND NORTH RIFT SURVEY



WOMAN'S INFORMATION PANEL		WM
<p><i>This questionnaire is to be administered to all women age 15 through 49 (see List of Household Members, column HL7). A separate questionnaire should be used for each eligible woman.</i></p>		
<p>WM1. Cluster number: _____</p>	<p>WM2. Household number: _____</p>	
<p>WM3. Woman's name: Name _____</p>	<p>WM4. Woman's line number: _____</p>	
<p>WM5. Interviewer's name and number: Name _____</p>	<p>WM6. Day/Month/Year of interview: _____ / _____ / 201__</p>	

<p><i>Repeat greeting if not already read to this woman:</i></p> <p>WE ARE FROM THE UNIVERSITY OF NAIROBI AND KENYA NATIONAL BUREAU OF STATISTICS. WE ARE CONDUCTING A SURVEY ABOUT THE SITUATION OF CHILDREN, FAMILIES AND HOUSEHOLDS. I WOULD LIKE TO TALK TO YOU ABOUT THESE SUBJECTS. THE INTERVIEW WILL TAKE ABOUT 45 MINUTES. ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND ANONYMOUS.</p>	<p><i>If greeting at the beginning of the household questionnaire has already been read to this woman, then read the following:</i></p> <p>NOW I WOULD LIKE TO TALK TO YOU MORE ABOUT YOUR HEALTH AND OTHER TOPICS. THIS INTERVIEW WILL TAKE ABOUT 45 MINUTES. AGAIN, ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND ANONYMOUS.</p>
<p>MAY I START NOW?</p> <p><input type="checkbox"/> Yes, permission is given ⇒ Go to WM10 to record the time and then begin the interview.</p> <p><input type="checkbox"/> No, permission is not given ⇒ Circle '03' in WM7. Discuss this result with your supervisor.</p>	

<p>WM7. Result of woman's interview</p>	<p>Completed 01</p> <p>Not at home 02</p> <p>Refused 03</p> <p>Partly completed 04</p> <p>Incapacitated 05</p> <p>Other (<i>specify</i>) _____ 96</p>
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<p>WM8. Field editor's name and number:</p> <p>Name _____</p>	<p>WM9. Main data entry clerk's name and number:</p> <p>Name _____</p>
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<p>WM10. Record the time.</p>	<p>Hour and minutes :</p>	
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WOMAN'S BACKGROUND		WB
WB1. IN WHAT MONTH AND YEAR WERE YOU BORN?	Date of birth Month __ __ DK month 98 Year __ __ __ __ DK year 9998	
WB2. HOW OLD ARE YOU? <i>Probe: HOW OLD WERE YOU AT YOUR LAST BIRTHDAY?</i> <i>Compare and correct WB1 and/or WB2 if inconsistent</i>	Age (in completed years)..... __ __	
WB3. HAVE YOU EVER ATTENDED SCHOOL OR PRESCHOOL?	Yes.....1 No2	2⇒WB7
WB4. WHAT IS THE HIGHEST LEVEL OF SCHOOL YOU ATTENDED?	Preschool.....0 Primary1 Secondary.....2 Higher3	0⇒WB7
WB5. WHAT IS THE HIGHEST GRADE YOU COMPLETED AT THAT LEVEL? <i>If the first grade at this level is not completed, enter "00"</i>	Grade..... __ __	
WB6. Check WB4: <input type="checkbox"/> Secondary or higher (WB4=2 or 3) ⇒ Go to Next Module <input type="checkbox"/> Primary (WB4=1) ⇒ Continue with WB7		

<p>WB7. NOW I WOULD LIKE YOU TO READ THIS SENTENCE TO ME.</p> <p><i>Show sentence on the card to the respondent. If respondent cannot read whole sentence, probe:</i></p> <p>CAN YOU READ PART OF THE SENTENCE TO ME?</p>	<p>Cannot read at all1</p> <p>Able to read only parts of sentence2</p> <p>Able to read whole sentence3</p> <p>No sentence in required language _____ 4 <i>(specify language)</i></p> <p>Blind/visually impaired5</p>	
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ACCESS TO MASS MEDIA AND USE OF INFORMATION/COMMUNICATION TECHNOLOGY		MT
MT1. Check WB7: <input type="checkbox"/> Question left blank (Respondent has secondary or higher education) ⇒ Continue with MT2 <input type="checkbox"/> Able to read or no sentence in required language (WB7 = 2, 3 or 4) ⇒ Continue with MT2 <input type="checkbox"/> Cannot read at all or blind/visually impaired (WB7 = 1 or 5) ⇒ Go to MT3		
MT2. HOW OFTEN DO YOU READ A NEWSPAPER OR MAGAZINE: ALMOST EVERY DAY, AT LEAST ONCE A WEEK, LESS THAN ONCE A WEEK OR NOT AT ALL?	Almost every day1 At least once a week.....2 Less than once a week3 Not at all.....4	
MT3. DO YOU LISTEN TO THE RADIO ALMOST EVERY DAY, AT LEAST ONCE A WEEK, LESS THAN ONCE A WEEK OR NOT AT ALL?	Almost every day1 At least once a week.....2 Less than once a week3 Not at all.....4	
MT4. HOW OFTEN DO YOU WATCH TELEVISION: WOULD YOU SAY THAT YOU WATCH ALMOST EVERY DAY, AT LEAST ONCE A WEEK, LESS THAN ONCE A WEEK OR NOT AT ALL?	Almost every day1 At least once a week.....2 Less than once a week3 Not at all.....4	
MT5. Check WB2: Age of respondent? <input type="checkbox"/> Age 15-24 ⇒ Continue with MT6 <input type="checkbox"/> Age 25-49 ⇒ Go to Next Module		
MT6. HAVE YOU EVER USED A COMPUTER?	Yes1 No2	2 ⇒ MT9
MT7. HAVE YOU USED A COMPUTER FROM ANY LOCATION IN THE LAST 12 MONTHS?	Yes1 No2	2 ⇒ MT9

<p>MT8. DURING THE LAST ONE MONTH, HOW OFTEN DID YOU USE A COMPUTER: ALMOST EVERY DAY, AT LEAST ONCE A WEEK, LESS THAN ONCE A WEEK OR NOT AT ALL?</p>	<p>Almost every day1 At least once a week.....2 Less than once a week.....3 Not at all.....4</p>	
<p>MT9. HAVE YOU EVER USED THE INTERNET?</p>	<p>Yes.....1 No2</p>	<p>2⇒Next Module</p>
<p>MT10. IN THE LAST 12 MONTHS, HAVE YOU USED THE INTERNET? <i>If necessary, probe for use from any location, with any device.</i></p>	<p>Yes.....1 No2</p>	<p>2⇒Next Module</p>
<p>MT11. DURING THE LAST ONE MONTH, HOW OFTEN DID YOU USE THE INTERNET: ALMOST EVERY DAY, AT LEAST ONCE A WEEK, LESS THAN ONCE A WEEK OR NOT AT ALL?</p>	<p>Almost every day1 At least once a week.....2 Less than once a week3 Not at all.....4</p>	

FERTILITY/BIRTH HISTORY		CM
<p>CM1. NOW I WOULD LIKE TO ASK ABOUT ALL THE BIRTHS YOU HAVE HAD DURING YOUR LIFE. HAVE YOU EVER GIVEN BIRTH?</p>	<p>Yes.....1 No2</p>	<p>2⇒CM8</p>
<p>CM4. DO YOU HAVE ANY SONS OR DAUGHTERS TO WHOM YOU HAVE GIVEN BIRTH WHO ARE NOW LIVING WITH YOU?</p>	<p>Yes.....1 No2</p>	<p>2⇒CM6</p>
<p>CM5. HOW MANY SONS LIVE WITH YOU? HOW MANY DAUGHTERS LIVE WITH YOU? <i>If none, record '00'.</i></p>	<p>Sons at home..... __ __ Daughters at home __ __</p>	
<p>CM6. DO YOU HAVE ANY SONS OR DAUGHTERS TO WHOM YOU HAVE GIVEN BIRTH WHO ARE ALIVE BUT DO NOT LIVE WITH YOU?</p>	<p>Yes.....1 No2</p>	<p>2⇒CM8</p>
<p>CM7. HOW MANY SONS ARE ALIVE BUT DO NOT LIVE WITH YOU? HOW MANY DAUGHTERS ARE ALIVE BUT DO NOT LIVE WITH YOU? <i>If none, record '00'.</i></p>	<p>Sons elsewhere __ __ Daughters elsewhere..... __ __</p>	
<p>CM8. HAVE YOU EVER GIVEN BIRTH TO A BOY OR GIRL WHO WAS BORN ALIVE BUT LATER DIED? <i>If "No" probe by asking: I MEAN, TO A CHILD WHO EVER BREATHED OR CRIED OR SHOWED OTHER SIGNS OF LIFE – EVEN IF HE OR SHE LIVED ONLY A FEW MINUTES OR HOURS?</i></p>	<p>Yes.....1 No2</p>	<p>2⇒CM10</p>
<p>CM9. HOW MANY BOYS HAVE DIED? HOW MANY GIRLS HAVE DIED?</p>	<p>Boys dead..... __ __ Girls dead __ __</p>	

<i>If none, record '00'.</i>		
CM10. <i>Sum answers to CM5, CM7, and CM9.</i>	Sum..... _ _	
<p>CM11. JUST TO MAKE SURE THAT I HAVE THIS RIGHT, YOU HAVE HAD IN TOTAL (<i>total number in CM10</i>) LIVE BIRTHS DURING YOUR LIFE. IS THIS CORRECT?</p> <p><input type="checkbox"/> <i>Yes. Check below:</i></p> <p style="padding-left: 40px;"><input type="checkbox"/> <i>No live births ⇒ Go to ILLNESS SYMPTOMS Module</i></p> <p style="padding-left: 40px;"><input type="checkbox"/> <i>One or more live births ⇒ Continue with the BIRTH HISTORY module</i></p> <p><input type="checkbox"/> <i>No. ⇒ Check responses to CM1-CM10 and make corrections as necessary before proceeding to the BIRTH HISTORY Module or ILLNESS SYMPTOMS Module</i></p>		

BIRTH HISTORY												BH				
NOW I WOULD LIKE TO RECORD THE NAMES OF ALL OF YOUR BIRTHS, WHETHER STILL ALIVE OR NOT, STARTING WITH THE FIRST ONE YOU HAD. Record names of all of the births in BH1. Record twins and triplets on separate lines. If there are more than 14 births, use an additional questionnaire.																
BH Line No.	BH1. WHAT NAME WAS GIVEN TO YOUR (first/next) BABY?	BH2. WERE ANY OF THESE BIRTHS TWINS? 1 Single 2 Multiple	BH3. IS (name) A BOY OR A GIRL? 1 Boy 2 Girl	BH4. IN WHAT MONTH AND YEAR WAS (name) BORN? Probe: WHAT IS HIS/HER BIRTHDAY?		BH5. IS (name) STILL ALIVE? 1 Yes 2 No	BH6. HOW OLD WAS (name) AT HIS/HER LAST BIRTHDAY? Record age in completed years.	BH7. IS (name) LIVING WITH YOU? 1 Yes 2 No	BH8. Record household line number of child (from HLI) Record "00" if child is not listed.	BH9. If dead: HOW OLD WAS (name) WHEN HE/SHE DIED? If "1 year", probe: HOW MANY MONTHS OLD WAS (name)? Record days if less than 1 month; record months if less than 2 years; or years			BH10. WERE THERE ANY OTHER LIVE BIRTHS BETWEEN (name of previous birth) AND (name), INCLUDING ANY CHILDREN WHO DIED AFTER BIRTH? 1 Yes 2 No			
Line	Name	SM	BG	Month	Year	Y	N	Age	Y	N	Line No	Unit	Number	Y	N	
01		1 2	1 2	___	___	1	2	___	1	2	___	Days 1 Months 2 Years 3				
							↓ BH9				⇒Next Line					
02		1 2	1 2	___	___	1	2	___	1	2	___	Days 1 Months 2 Years 3		1	2	
							↓ BH9				⇒BH10			Add Birth	Next Birth	
03		1 2	1 2	___	___	1	2	___	1	2	___	Days 1 Months 2 Years 3		1	2	
							↓ BH9				⇒BH10			Add Birth	Next Birth	
04		1 2	1 2	___	___	1	2	___	1	2	___	Days 1 Months 2 Years 3		1	2	
							↓ BH9				⇒BH10			Add Birth	Next Birth	
05		1 2	1 2	___	___	1	2	___	1	2	___	Days 1 Months 2 Years 3		1	2	
							↓ BH9				⇒BH10			Add Birth	Next Birth	
06		1 2	1 2	___	___	1	2	___	1	2	___	Days 1 Months 2 Years 3		1	2	
							↓ BH9				⇒BH10			Add Birth	Next Birth	
07		1 2	1 2	___	___	1	2	___	1	2	___	Days 1		1	2	

<i>BH Line No.</i>	BH1. WHAT NAME WAS GIVEN TO YOUR <i>(first/next)</i> BABY?	BH2. WERE ANY OF THESE BIRTHS TWINS? 1 Single 2 Multiple	BH3. IS <i>(name)</i> A BOY OR A GIRL? 1 Boy 2 Girl	BH4. IN WHAT MONTH AND YEAR WAS <i>(name)</i> BORN? <i>Probe:</i> WHAT IS HIS/HER BIRTHDAY?		BH5. IS <i>(name)</i> STILL ALIVE? 1 Yes 2 No	BH6. HOW OLD WAS <i>(name)</i> AT HIS/HER LAST BIRTHDAY? <i>Record age in completed years.</i>	BH7. IS <i>(name)</i> LIVING WITH YOU? 1 Yes 2 No	BH8. <i>Record household line number of child (from HLI)</i> <i>Record "00" if child is not listed.</i>	BH9. <i>If dead:</i> HOW OLD WAS <i>(name)</i> WHEN HE/SHE DIED? <i>If "1 year", probe:</i> HOW MANY MONTHS OLD WAS <i>(name)</i> ? <i>Record days if less than 1 month; record months if less than 2 years; or years</i>		BH10. WERE THERE ANY OTHER LIVE BIRTHS BETWEEN <i>(name of previous birth)</i> AND <i>(name)</i> , INCLUDING ANY CHILDREN WHO DIED AFTER BIRTH? 1 Yes 2 No	
						↓ BH9			⇒BH10	Months 2		Add Birth	Next Birth
										Years 3			

BH Line No.	BH1. WHAT NAME WAS GIVEN TO YOUR (first/next) BABY?	BH2. WERE ANY OF THESE BIRTHS TWINS? 1 Single 2 Multiple	BH3. IS (name) A BOY OR A GIRL? 1 Boy 2 Girl	BH4. IN WHAT MONTH AND YEAR WAS (name) BORN? <i>Probe: WHAT IS HIS/HER BIRTHDAY?</i>		BH5. IS (name) STILL ALIVE? 1 Yes 2 No	BH6. HOW OLD WAS (name) AT HIS/HER LAST BIRTHDAY? <i>Record age in completed years.</i>	BH7. IS (name) LIVING WITH YOU? 1 Yes 2 No	BH8. <i>Record household line number of child (from HL1)</i> <i>Record "00" if child is not listed.</i>	BH9. <i>If dead:</i> HOW OLD WAS (name) WHEN HE/SHE DIED? <i>If "1 year", probe:</i> HOW MANY MONTHS OLD WAS (name)? <i>Record days if less than 1 month; record months if less than 2 years; or years</i>		BH10. WERE THERE ANY OTHER LIVE BIRTHS BETWEEN (name of previous birth) AND (name), INCLUDING ANY CHILDREN WHO DIED AFTER BIRTH? 1 Yes 2 No
08		1 2	1 2	___	___	1 2 ↓ BH9	___	1 2	___ ⇒BH10	Days 1 Months 2 Years 3	___	1 2 Add Birth Next Birth
09		1 2	1 2	___	___	1 2 ↓ BH9	___	1 2	___ ⇒BH10	Days 1 Months 2 Years 3	___	1 2 Add Birth Next Birth
10		1 2	1 2	___	___	1 2 ↓ BH9	___	1 2	___ ⇒BH10	Days 1 Months 2 Years 3	___	1 2 Add Birth Next Birth
11		1 2	1 2	___	___	1 2 ↓ BH9	___	1 2	___ ⇒BH10	Days 1 Months 2 Years 3	___	1 2 Add Birth Next Birth
12		1 2	1 2	___	___	1 2 ↓ BH9	___	1 2	___ ⇒BH10	Days 1 Months 2 Years 3	___	1 2 Add Birth Next Birth
13		1 2	1 2	___	___	1 2 ↓ BH9	___	1 2	___ ⇒BH10	Days 1 Months 2 Years 3	___	1 2 Add Birth Next Birth
14		1 2	1 2	___	___	1 2 ↓ BH9	___	1 2	___ ⇒BH10	Days 1 Months 2 Years 3	___	1 2 Add Birth Next Birth

<i>BH Line No.</i>	BH1. WHAT NAME WAS GIVEN TO YOUR <i>(first/next)</i> BABY?	BH2. WERE ANY OF THESE BIRTHS TWINS? 1 Single 2 Multiple	BH3. IS <i>(name)</i> A BOY OR A GIRL? 1 Boy 2 Girl	BH4. IN WHAT MONTH AND YEAR WAS <i>(name)</i> BORN? <i>Probe: WHAT IS HIS/HER BIRTHDAY?</i>	BH5. IS <i>(name)</i> STILL ALIVE? 1 Yes 2 No	BH6. HOW OLD WAS <i>(name)</i> AT HIS/HER LAST BIRTHDAY? <i>Record age in completed years.</i>	BH7. IS <i>(name)</i> LIVING WITH YOU? 1 Yes 2 No	BH8. <i>Record household line number of child (from HLI)</i> <i>Record "00" if child is not listed.</i>	BH9. <i>If dead:</i> HOW OLD WAS <i>(name)</i> WHEN HE/SHE DIED? <i>If "1 year", probe:</i> HOW MANY MONTHS OLD WAS <i>(name)</i> ? <i>Record days if less than 1 month; record months if less than 2 years; or years</i>	BH10. WERE THERE ANY OTHER LIVE BIRTHS BETWEEN <i>(name of previous birth)</i> AND <i>(name)</i> , INCLUDING ANY CHILDREN WHO DIED AFTER BIRTH? 1 Yes 2 No
BH11. HAVE YOU HAD ANY LIVE BIRTHS SINCE THE BIRTH OF <i>(name of last birth in BIRTH HISTORY Module)</i> ?						Yes..... 1			1 ⇨ Record birth(s) in Birth History	
						No 2				

CM12A. Compare number in CM10 with number of births in the BIRTH HISTORY Module above and check:

- Numbers are same ⇒ Continue with CM13
- Numbers are different ⇒ Probe and reconcile

CM13. Check BH4 in BIRTH HISTORY Module: Last birth occurred within the last 2 years, that is, since (month of interview) in **2011** (if the month of interview and the month of birth are the same, and the year of birth is **2011**, consider this as a birth within the last 2 years)

- No live birth in last 2 years. ⇒ Go to ILLNESS SYMPTOMS Module.
- One or more live births in last 2 years. ⇒ Record name of last born child and continue with Next Module

Name of last-born child _____

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

DESIRE FOR LAST BIRTH		DB
<p><i>This module is to be administered to all women with a live birth in the 2 years preceding the date of interview. Record name of last-born child from CM13 here _____. Use this child's name in the following questions, where indicated.</i></p>		
<p>DB1. WHEN YOU GOT PREGNANT WITH (<i>name</i>), DID YOU WANT TO GET PREGNANT AT THAT TIME?</p>	<p>Yes 1</p> <p>No 2</p>	<p>1⇒Next Module</p>
<p>DB2. DID YOU WANT TO HAVE A BABY LATER ON, OR DID YOU NOT WANT ANY (MORE) CHILDREN?</p>	<p>Later 1</p> <p>No more..... 2</p>	<p>2⇒Next Module</p>
<p>DB3. HOW MUCH LONGER DID YOU WANT TO WAIT?</p> <p><i>Record the answer as stated by respondent.</i></p>	<p>Months..... 1 _ _</p> <p>Years 2 _ _</p> <p>DK..... 998</p>	

MATERNAL AND NEWBORN HEALTH		MN												
<p><i>This module is to be administered to all women with a live birth in the 2 years preceding the date of interview. Record name of last-born child from CM13 here _____. Use this child's name in the following questions, where indicated.</i></p>														
<p>MN1. DID YOU SEE ANYONE FOR ANTENATAL CARE DURING YOUR PREGNANCY WITH (name)?</p>	<p>Yes 1 No..... 2</p>	2⇒MN5												
<p>MN2. WHOM DID YOU SEE?</p> <p><i>Probe:</i> ANYONE ELSE?</p> <p><i>Probe for the type of person seen and circle all answers given.</i></p>	<p>Health professional: Doctor A Nurse/Midwife B Clinical Officer C Community Nurse D Other person Relative / friend E Traditional birth attendant F Community health worker G Other (specify) X</p>													
<p>MN2A. HOW MANY WEEKS OR MONTHS PREGNANT WERE YOU WHEN YOU FIRST RECEIVED ANTENATAL CARE FOR THIS PREGNANCY?</p> <p><i>Record the answer as stated by respondent.</i></p>	<p>Weeks 1 ___ ___ Months 2 0 ___ DK 998</p>													
<p>MN3. HOW MANY TIMES DID YOU RECEIVE ANTENATAL CARE DURING THIS PREGNANCY?</p> <p><i>Probe to identify the number of times antenatal care was received. If a range is given, record the minimum number of times antenatal care received.</i></p>	<p>Number of times ___ ___ DK 98</p>													
<p>MN4. AS PART OF YOUR ANTENATAL CARE DURING THIS PREGNANCY, WERE ANY OF THE FOLLOWING DONE AT LEAST ONCE:</p> <p>[A] WAS YOUR BLOOD PRESSURE MEASURED? [B] DID YOU GIVE A URINE SAMPLE? [C] DID YOU GIVE A BLOOD SAMPLE?</p>	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;"></th> <th style="width: 10%; text-align: center;">Yes</th> <th style="width: 10%; text-align: center;">No</th> </tr> </thead> <tbody> <tr> <td>Blood pressure</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Urine sample</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Blood sample</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> </tbody> </table>		Yes	No	Blood pressure	1	2	Urine sample	1	2	Blood sample	1	2	
	Yes	No												
Blood pressure	1	2												
Urine sample	1	2												
Blood sample	1	2												
<p>MN5. DO YOU HAVE A CARD OR OTHER DOCUMENT WITH YOUR OWN IMMUNIZATIONS LISTED?</p> <p>MAY I SEE IT PLEASE?</p> <p><i>If a card is presented, use it to assist with answers to the following questions.</i></p>	<p>Yes (card seen) 1 Yes (card not seen) 2 No..... 3 DK 8</p>													
<p>MN6. WHEN YOU WERE PREGNANT WITH (name), DID YOU RECEIVE ANY INJECTION IN THE ARM OR SHOULDER TO PREVENT THE BABY FROM GETTING TETANUS, THAT IS CONVULSIONS AFTER BIRTH?</p>	<p>Yes..... 1 No..... 2 DK 8</p>	2⇒MN9 8⇒MN9												
<p>MN7. HOW MANY TIMES DID YOU RECEIVE THIS TETANUS INJECTION DURING YOUR PREGNANCY WITH (name)?</p>	<p>Number of times ___ DK 8</p>	8⇒MN9												

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<p>MN8. How many tetanus injections during last pregnancy were reported in MN7?</p> <p><input type="checkbox"/> At least two tetanus injections during last pregnancy. ⇒ Go to MN12</p> <p><input type="checkbox"/> Only one tetanus injection during last pregnancy. ⇒ Continue with MN9</p>		
<p>MN9. DID YOU RECEIVE ANY TETANUS INJECTION AT ANY TIME BEFORE YOUR PREGNANCY WITH (name), EITHER TO PROTECT YOURSELF OR ANOTHER BABY?</p>	<p>Yes 1</p> <p>No 2</p> <p>DK 8</p>	<p>2⇒MN12</p> <p>8⇒MN12</p>
<p>MN10. HOW MANY TIMES DID YOU RECEIVE A TETANUS INJECTION BEFORE YOUR PREGNANCY WITH (name)?</p> <p><i>If 7 or more times, record '7'.</i></p>	<p>Number of times.....</p> <p>DK 8</p>	<p>8⇒MN12</p>
<p>MN11. HOW MANY YEARS AGO DID YOU RECEIVE THE LAST TETANUS INJECTION BEFORE YOUR PREGNANCY WITH (name)?</p> <p><i>If less than 1 year, record '00'.</i></p>	<p>Years ago.....</p>	
<p>MN12. Check MN1 for presence of antenatal care during this pregnancy:</p> <p><input type="checkbox"/> Yes, antenatal care received. ⇒ Continue with MN13</p> <p><input type="checkbox"/> No antenatal care received ⇒ Go to MN17</p>		
<p>MN13. DURING (ANY OF)YOUR ANTENATAL VISIT(S) FOR THE PREGNANCY WITH (name), DID YOU TAKE ANY MEDICINE IN ORDER TO PREVENT YOU FROM GETTING MALARIA?</p>	<p>Yes 1</p> <p>No 2</p> <p>DK 8</p>	<p>2⇒MN17</p> <p>8⇒MN17</p>
<p>MN14. WHICH MEDICINES DID YOU TAKE TO PREVENT MALARIA?</p> <p><i>Circle all medicines taken. If type of medicine is not determined, show typical anti-malarial to respondent.</i></p>	<p>SP/Fansidar A</p> <p>Chloroquine B</p> <p>Other (specify) X</p> <p>DK Z</p>	
<p>MN15. Check MN14 for medicine taken:</p> <p><input type="checkbox"/> SP/Fansidar taken. ⇒ Continue with MN16</p> <p><input type="checkbox"/> SP/Fansidar not taken. ⇒ Go to MN17</p>		
<p>MN16. DURING YOUR PREGNANCY WITH (name), HOW MANY TIMES DID YOU TAKE SP/FANSIDAR IN TOTAL?</p> <p>PLEASE INCLUDE ALL THAT YOU OBTAINED EITHER DURING AN ANTENATAL CARE VISIT, DURING A VISIT TO A HEALTH FACILITY OR FROM ANOTHER SOURCE?</p>	<p>Number of times.....</p> <p>DK 98</p>	

<p>MN17. WHO ASSISTED WITH THE DELIVERY OF (name)?</p> <p><i>Probe:</i> ANYONE ELSE?</p> <p><i>Probe for the type of person assisting and circle all answers given.</i></p> <p><i>If respondent says no one assisted, probe to determine whether any adults were present at the delivery.</i></p>	<p>Health professional:</p> <p>Doctor A</p> <p>Nurse / Midwife B</p> <p>Clinical Officer C</p> <p>Community Nurse D</p> <p>Other person</p> <p>Traditional birth attendant F</p> <p>Community health worker G</p> <p>Relative / Friend H</p> <p>Other (specify) X</p> <p>No one Y</p>	
<p>MN18. WHERE DID YOU GIVE BIRTH TO (name)?</p> <p><i>Probe to identify the type of source.</i></p> <p><i>If unable to determine whether public or private, write the name of the place.</i></p> <p>_____</p> <p>(Name of place)</p>	<p>Home</p> <p>Respondent's home 11</p> <p>Other home 12</p> <p>Public sector</p> <p>Government hospital 21</p> <p>Government clinic/health centre 22</p> <p>Government dispensary 23</p> <p>Other public (specify) 26</p> <p>Private Medical Sector</p> <p>Private hospital 31</p> <p>Private clinic 32</p> <p>Private maternity home 33</p> <p>Mission hospital /clinic 34</p> <p>Other private medical (specify) 36</p> <p>Other (specify) 96</p>	<p>11⇒MN20</p> <p>12⇒MN20</p> <p>96⇒MN20</p>
<p>MN19. WAS (name) DELIVERED BY CAESAREAN SECTION? THAT IS, DID THEY CUT YOUR BELLY OPEN TO TAKE THE BABY OUT?</p>	<p>Yes 1</p> <p>No 2</p>	<p>2⇒MN20</p>
<p>MN19A. WHEN WAS THE DECISION MADE TO HAVE THE CAESAREAN SECTION?</p> <p>WAS IT BEFORE OR AFTER YOUR LABOUR PAINS STARTED?</p>	<p>Before 1</p> <p>After 2</p>	
<p>MN20. WHEN (name) WAS BORN, WAS HE/SHE VERY LARGE, LARGER THAN AVERAGE, AVERAGE, SMALLER THAN AVERAGE, OR VERY SMALL?</p>	<p>Very large 1</p> <p>Larger than average 2</p> <p>Average 3</p> <p>Smaller than average 4</p> <p>Very small 5</p> <p>DK 8</p>	
<p>MN21. WAS (name) WEIGHED AT BIRTH?</p>	<p>Yes 1</p> <p>No 2</p> <p>DK 8</p>	<p>2⇒MN23</p> <p>8⇒MN23</p>
<p>MN22. HOW MUCH DID (name) WEIGH?</p> <p><i>If a card is available, record weight from card.</i></p>	<p>From card 1 (kg)</p>	

	From recall2 (kg) ____ . ____	
	DK 99998	
MN23. HAS YOUR MENSTRUAL PERIOD RETURNED SINCE THE BIRTH OF <i>(name)</i> ?	Yes 1 No..... 2	
MN24. DID YOU EVER BREASTFEED <i>(name)</i> ?	Yes 1 No..... 2	2⇒Next Module
MN25. HOW LONG AFTER BIRTH DID YOU FIRST PUT <i>(name)</i> TO THE BREAST? <i>If less than 1 hour, record '00' hours. If less than 24 hours, record hours. Otherwise, record days.</i>	Immediately 000 Hours..... 1 ____ Days 2 ____ DK/Don't remember 998	
MN26. IN THE FIRST THREE DAYS AFTER DELIVERY, WAS <i>(name)</i> GIVEN ANYTHING TO DRINK OTHER THAN BREAST MILK?	Yes 1 No..... 2	2⇒Next Module
MN27. WHAT WAS <i>(name)</i> GIVEN TO DRINK? <i>Probe:</i> ANYTHING ELSE?	Milk (other than breast milk).....A Plain waterB Sugar or glucose waterC Gripe water.....D Sugar-salt-water solutionE Fruit juice.....F Infant formulaG Tea / Infusions.....H HoneyI Other (<i>specify</i>)X	

POST-NATAL HEALTH CHECKS		PN
<p><i>This module is to be administered to all women with a live birth in the 2 years preceding the date of interview. Record name of last-born child from CM13 here _____. Use this child's name in the following questions, where indicated.</i></p>		
<p>PN1. Check MN18: Was the child delivered in a health facility?</p> <p><input type="checkbox"/> Yes, the child was delivered in a health facility (MN18=21-26 or 31-36) ⇒ Continue with PN2</p> <p><input type="checkbox"/> No, the child was not delivered in a health facility (MN18=11-12 or 96) ⇒ Go to PN6</p>		
<p>PN2. NOW I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT WHAT HAPPENED IN THE HOURS AND DAYS AFTER THE BIRTH OF (name).</p> <p>YOU HAVE SAID THAT YOU GAVE BIRTH IN (name or type of facility in MN18). HOW LONG DID YOU STAY THERE AFTER THE DELIVERY?</p> <p><i>If less than one day, record hours. If less than one week, record days. Otherwise, record weeks.</i></p>	<p>Hours..... 1 ___</p> <p>Days 2 ___</p> <p>Weeks 3 ___</p> <p>DK / Don't remember 998</p>	
<p>PN3. I WOULD LIKE TO TALK TO YOU ABOUT CHECKS ON (name)'S HEALTH AFTER DELIVERY – FOR EXAMPLE, SOMEONE EXAMINING (name), CHECKING THE CORD, OR SEEING IF (name) IS OK.</p> <p>BEFORE YOU LEFT THE (name or type of facility in MN18), DID ANYONE CHECK ON (name)'S HEALTH?</p>	<p>Yes 1</p> <p>No..... 2</p>	
<p>PN4. AND WHAT ABOUT CHECKS ON YOUR HEALTH – I MEAN, SOMEONE ASSESSING YOUR HEALTH, FOR EXAMPLE ASKING QUESTIONS ABOUT YOUR HEALTH OR EXAMINING YOU?</p> <p>DID ANYONE CHECK ON YOUR HEALTH BEFORE YOU LEFT (name or type or facility in MN18)?</p>	<p>Yes 1</p> <p>No..... 2</p>	
<p>PN5. NOW I WOULD LIKE TO TALK TO YOU ABOUT WHAT HAPPENED AFTER YOU LEFT (name or type of facility in MN18).</p> <p>DID ANYONE CHECK ON (name)'S HEALTH AFTER YOU LEFT (name or type of facility in MN18)?</p>	<p>Yes 1</p> <p>No..... 2</p>	<p>1⇒PN11</p> <p>2⇒PN16</p>
<p>PN6. Check MN17: Did a health professional, traditional birth attendant, or community health worker assist with the delivery?</p> <p><input type="checkbox"/> Yes, delivery assisted by a health professional, traditional birth attendant, or community health worker (MN17=A-G) ⇒Continue with PN7</p> <p><input type="checkbox"/> No, delivery not assisted by a health professional, traditional birth attendant, or community</p>		

<i>health worker (A-G not circled in MN17) ⇒ Go to PN10</i>		
<p>PN7. YOU HAVE ALREADY SAID THAT (<i>person or persons in MN17</i>) ASSISTED WITH THE BIRTH. NOW I WOULD LIKE TO TALK TO YOU ABOUT CHECKS ON (<i>name</i>)’S HEALTH AFTER DELIVERY, FOR EXAMPLE EXAMINING (<i>name</i>), CHECKING THE CORD, OR SEEING IF (<i>name</i>) IS OK.</p> <p>AFTER THE DELIVERY WAS OVER AND BEFORE (<i>person or persons in MN17</i>) LEFT YOU, DID (<i>person or persons in MN17</i>) CHECK ON (<i>name</i>)’S HEALTH?</p>	<p>Yes 1 No..... 2</p>	
<p>PN8. AND DID (<i>person or persons in MN17</i>) CHECK ON <u>YOUR</u> HEALTH BEFORE LEAVING?</p> <p>BY CHECK ON YOUR HEALTH, I MEAN ASSESSING YOUR HEALTH, FOR EXAMPLE ASKING QUESTIONS ABOUT YOUR HEALTH OR EXAMINING YOU.</p>	<p>Yes 1 No..... 2</p>	
<p>PN9. AFTER THE (<i>person or persons in MN17</i>) LEFT YOU, DID ANYONE CHECK ON THE HEALTH OF (<i>name</i>)?</p>	<p>Yes 1 No..... 2</p>	<p>1⇒PN11 2⇒PN18</p>
<p>PN10. I WOULD LIKE TO TALK TO YOU ABOUT CHECKS ON (<i>name</i>)’S HEALTH AFTER DELIVERY – FOR EXAMPLE, SOMEONE EXAMINING (<i>name</i>), CHECKING THE CORD, OR SEEING IF THE BABY IS OK.</p> <p>AFTER (<i>name</i>) WAS DELIVERED, DID ANYONE CHECK ON HIS/HER HEALTH?</p>	<p>Yes 1 No..... 2</p>	<p>2⇒PN19</p>
<p>PN11. DID SUCH A CHECK HAPPEN ONLY ONCE, OR MORE THAN ONCE?</p>	<p>Once..... 1 More than once 2</p>	<p>1⇒PN12A 2⇒PN12B</p>
<p>PN12A. HOW LONG AFTER DELIVERY DID THAT CHECK HAPPEN?</p> <p>PN12B. HOW LONG AFTER DELIVERY DID THE FIRST OF THESE CHECKS HAPPEN?</p> <p><i>If less than one day, record hours. If less than one week, record days. Otherwise, record weeks.</i></p>	<p>Hours..... 1 ___ ___ Days 2 ___ ___ Weeks 3 ___ ___ DK / Don’t remember 998</p>	

<p>PN13. WHO CHECKED ON <i>(name)</i>'S HEALTH AT THAT TIME?</p>	<p>Health professional: Doctor A Nurse / Midwife B Clinical Officer C Community Nurse D</p> <p>Other person Traditional birth attendant F Community health worker G Relative / Friend H</p> <p>Other (<i>specify</i>) X</p>	
<p>PN14. WHERE DID THIS CHECK TAKE PLACE?</p> <p><i>Probe to identify the type of source.</i></p> <p><i>If unable to determine whether public or private, write the name of the place.</i></p> <p>_____</p> <p style="text-align: center;"><i>(Name of place)</i></p>	<p>Home Respondent's home 11 Other home 12</p> <p>Public sector Government hospital 21 Government clinic / health centre 22 Government dispensary 23 Other public (<i>specify</i>) 26</p> <p>Private Medical Sector Private hospital 31 Private clinic 32 Private maternity home 33 Mission hospital /clinic 34 Other Private Medical 35</p> <p>Other (<i>specify</i>) 96</p>	
<p>PN15. Check MN18: Was the child delivered in a health facility?</p> <p><input type="checkbox"/> <i>Yes, the child was delivered in a health facility (MN18=21-26 or 31-36) ⇒ Continue with PN16</i></p> <p><input type="checkbox"/> <i>No, the child was not delivered in a health facility (MN18=11-12 or 96) ⇒ Go to PN17</i></p>		
<p>PN16. AFTER YOU LEFT (<i>name or type of facility in MN18</i>), DID ANYONE CHECK ON <u>YOUR</u> HEALTH?</p>	<p>Yes 1 No 2</p>	<p>1 ⇒ PN20 2 ⇒ Next Module</p>
<p>PN17. Check MN17: Did a health professional, traditional birth attendant, or community health worker assist with the delivery?</p> <p><input type="checkbox"/> <i>Yes, delivery assisted by a health professional, traditional birth attendant, or community health worker (MN17=A-G) ⇒ Continue with PN18</i></p> <p><input type="checkbox"/> <i>No, delivery not assisted by a health professional, traditional birth attendant, or community health worker (A-G not circled in MN17) ⇒ Go to PN19</i></p>		
<p>PN18. AFTER THE DELIVERY WAS OVER AND (<i>person or persons in MN17</i>) LEFT, DID ANYONE CHECK ON <u>YOUR</u> HEALTH?</p>	<p>Yes 1 No 2</p>	<p>1 ⇒ PN20 2 ⇒ Next Module</p>

<p>PN19. AFTER THE BIRTH OF (<i>name</i>), DID ANYONE CHECK ON <u>YOUR</u> HEALTH?</p> <p>I MEAN SOMEONE ASSESSING YOUR HEALTH, FOR EXAMPLE ASKING QUESTIONS ABOUT YOUR HEALTH OR EXAMINING YOU.</p>	<p>Yes 1 No..... 2</p>	<p>2⇒Next Module</p>
<p>PN20. DID SUCH A CHECK HAPPEN ONLY ONCE, OR MORE THAN ONCE?</p>	<p>Once..... 1 More than once 2</p>	<p>1⇒PN21A 2⇒PN21B</p>
<p>PN21A. HOW LONG AFTER DELIVERY DID THAT CHECK HAPPEN?</p> <p>PN21B. HOW LONG AFTER DELIVERY DID THE FIRST OF THESE CHECKS HAPPEN?</p> <p><i>If less than one day, record hours. If less than one week, record days. Otherwise, record weeks.</i></p>	<p>Hours..... 1 ___ ___ Days 2 ___ ___ Weeks 3 ___ ___ DK / Don't remember 998</p>	
<p>PN22. WHO CHECKED ON <u>YOUR</u> HEALTH AT THAT TIME?</p>	<p>Health professional: DoctorA Nurse / MidwifeB Clinical OfficerC Community NurseD</p> <p>Other person Traditional birth attendant F Community health worker G Relative / FriendH</p> <p>Other (<i>specify</i>)X</p>	
<p>PN23. WHERE DID THIS CHECK TAKE PLACE?</p> <p><i>Probe to identify the type of source.</i></p> <p><i>If unable to determine whether public or private, write the name of the place.</i></p> <p>_____</p> <p>(<i>Name of place</i>)</p>	<p>Home Respondent's home 11 Other home 12</p> <p>Public sector Government hospital 21 Government clinic / health centre 22 Government dispensary 23 Other public (specify) 26</p> <p>Private Medical Sector Private hospital..... 31 Private clinic 32 Private maternity home 33 Mission hospital /clinic..... 34 Other Private Medical 35</p> <p>Other (specify) 96</p>	

ILLNESS SYMPTOMS **IS**

IS1. Check List of Household Members, columns HL7B and HL15

Is the respondent the mother or caretaker of any child under age 5?

Yes ⇒ Continue with IS2.

No ⇒ Go to Next Module.

IS2. SOMETIMES CHILDREN HAVE SEVERE ILLNESSES AND SHOULD BE TAKEN IMMEDIATELY TO A HEALTH FACILITY. WHAT TYPES OF SYMPTOMS WOULD CAUSE YOU TO TAKE A CHILD UNDER THE AGE OF 5 TO A HEALTH FACILITY RIGHT AWAY?

Probe:

ANY OTHER SYMPTOMS?

Keep asking for more signs or symptoms until the mother/caretaker cannot recall any additional symptoms.

Circle all symptoms mentioned, but do not prompt with any suggestions

- Child not able to drink or breastfeed A
- Child becomes sicker B
- Child develops a fever C
- Child has fast breathing D
- Child has difficulty breathing E
- Child has blood in stool F
- Child is drinking poorly G

Other (*specify*) _____ X

Other (*specify*) _____ Y

Other (*specify*) _____ Z

CONTRACEPTION		CP
<p>CP1. I WOULD LIKE TO TALK WITH YOU ABOUT ANOTHER SUBJECT – FAMILY PLANNING.</p> <p>ARE YOU PREGNANT NOW?</p>	<p>Yes, currently pregnant 1</p> <p>No 2</p> <p>Unsure or DK 8</p>	<p>1⇒CP2A</p>
<p>CP2. COUPLES USE VARIOUS WAYS OR METHODS TO DELAY OR AVOID A PREGNANCY.</p> <p>ARE YOU CURRENTLY DOING SOMETHING OR USING ANY METHOD TO DELAY OR AVOID GETTING PREGNANT?</p>	<p>Yes 1</p> <p>No 2</p>	<p>1⇒CP3</p>
<p>CP2A. HAVE YOU EVER DONE SOMETHING OR USED ANY METHOD TO DELAY OR AVOID GETTING PREGNANT?</p>	<p>Yes 1</p> <p>No 2</p>	<p>1⇒Next Module</p> <p>2⇒Next Module</p>
<p>CP3. WHAT ARE YOU DOING TO DELAY OR AVOID A PREGNANCY?</p> <p><i>Do not prompt.</i></p> <p><i>If more than one method is mentioned, circle each one.</i></p>	<p>Female sterilization A</p> <p>Male sterilization B</p> <p>IUD C</p> <p>Injectables D</p> <p>Implants E</p> <p>Pill F</p> <p>Male condom G</p> <p>Female condom H</p> <p>Diaphragm I</p> <p>Foam/ Jelly J</p> <p>Lactational amenorrhoea method (LAM) K</p> <p>Periodic abstinence/Rhythm L</p> <p>Withdrawal M</p> <p>Other (<i>specify</i>) X</p>	

UNMET NEED		UN
<p>UN1. Check CP1. Currently pregnant?</p> <p><input type="checkbox"/> Yes, currently pregnant ⇒ Continue with UN2</p> <p><input type="checkbox"/> No, unsure or DK ⇒ Go to UN5</p>		
<p>UN2. NOW I WOULD LIKE TO TALK TO YOU ABOUT YOUR CURRENT PREGNANCY. WHEN YOU GOT PREGNANT, DID YOU WANT TO GET PREGNANT AT THAT TIME?</p>	<p>Yes 1</p> <p>No 2</p>	<p>1⇒UN4</p>
<p>UN3. DID YOU WANT TO HAVE A BABY LATER ON OR DID YOU NOT WANT ANY (MORE) CHILDREN?</p>	<p>Later 1</p> <p>No more 2</p>	
<p>UN4. NOW I WOULD LIKE TO ASK SOME QUESTIONS ABOUT THE FUTURE. AFTER THE CHILD YOU ARE NOW EXPECTING, WOULD YOU LIKE TO HAVE ANOTHER CHILD, OR WOULD YOU PREFER NOT TO HAVE ANY MORE CHILDREN?</p>	<p>Have another child 1</p> <p>No more / None 2</p> <p>Undecided / DK 8</p>	<p>1⇒UN7</p> <p>2⇒UN13</p> <p>8⇒UN13</p>
<p>UN5. Check CP3. Currently using “Female sterilization”?</p> <p><input type="checkbox"/> Yes ⇒ Go to UN13</p> <p><input type="checkbox"/> No ⇒ Continue with UN6</p>		
<p>UN6. NOW I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT THE FUTURE. WOULD YOU LIKE TO HAVE (A/ANOTHER) CHILD, OR WOULD YOU PREFER NOT TO HAVE ANY (MORE) CHILDREN?</p>	<p>Have (a/another) child 1</p> <p>No more / None 2</p> <p>Says she cannot get pregnant 3</p> <p>Undecided / DK 8</p>	<p>2⇒UN9</p> <p>3⇒UN11</p> <p>8⇒UN9</p>
<p>UN7. HOW LONG WOULD YOU LIKE TO WAIT BEFORE THE BIRTH OF (A/ANOTHER) CHILD?</p> <p><i>Record the answer as stated by respondent.</i></p>	<p>Months 1 ___</p> <p>Years 2 ___</p> <p>Does not want to wait (soon/now) 993</p> <p>Says she cannot get pregnant 994</p> <p>After marriage 995</p> <p>Other 996</p> <p>DK 998</p>	<p>994⇒UN11</p>
<p>UN8. Check CP1. Currently pregnant?</p> <p><input type="checkbox"/> Yes, currently pregnant ⇒ Go to UN13</p> <p><input type="checkbox"/> No, unsure or DK ⇒ Continue with UN9</p>		

<p>UN9. Check CP2. Currently using a method?</p> <p><input type="checkbox"/> <i>Yes</i> ⇒ <i>Go to UN13</i></p> <p><input type="checkbox"/> <i>No</i> ⇒ <i>Continue with UN10</i></p>		
<p>UN10. DO YOU THINK YOU ARE PHYSICALLY ABLE TO GET PREGNANT AT THIS TIME?</p>	<p>Yes 1</p> <p>No 2</p> <p>DK 8</p>	<p>1 ⇒ UN13</p> <p>8 ⇒ UN13</p>
<p>UN11. WHY DO YOU THINK YOU ARE NOT PHYSICALLY ABLE TO GET PREGNANT?</p>	<p>Infrequent sex / No sex A</p> <p>Menopausal B</p> <p>Never menstruated C</p> <p>Hysterectomy (surgical removal of uterus) D</p> <p>Has been trying to get pregnant for 2 years or more without result E</p> <p>Postpartum amenorrheic F</p> <p>Breastfeeding G</p> <p>Too old H</p> <p>Fatalistic I</p> <p>Other (<i>specify</i>) X</p> <p>DK Z</p>	
<p>UN12. Check UN11. “Never menstruated” mentioned?</p> <p><input type="checkbox"/> <i>Mentioned</i> ⇒ <i>Go to Next Module</i></p> <p><input type="checkbox"/> <i>Not mentioned</i> ⇒ <i>Continue with UN13</i></p>		
<p>UN13. WHEN DID YOUR LAST MENSTRUAL PERIOD START?</p> <p><i>Record the answer using the same unit stated by the respondent</i></p>	<p>Days ago 1 ___</p> <p>Weeks ago 2 ___</p> <p>Months ago 3 ___</p> <p>Years ago 4 ___</p> <p>In menopause / Has had hysterectomy 994</p> <p>Before last birth 995</p> <p>Never menstruated 996</p>	

FEMALE GENITAL MUTILATION/CUTTING		FG
FG1. HAVE YOU EVER HEARD OF FEMALE CIRCUMCISION?	Yes 1 No..... 2	1⇒FG3
FG2. IN SOME COUNTRIES, THERE IS A PRACTICE IN WHICH A GIRL MAY HAVE PART OF HER GENITALS CUT. 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⇒FG9
FG4. NOW I WOULD LIKE TO ASK YOU WHAT WAS DONE TO YOU AT THAT TIME. WAS ANY FLESH REMOVED FROM THE GENITAL AREA?	Yes 1 No..... 2 DK 8	1⇒FG6
FG5. WAS THE GENITAL AREA JUST NICKED WITHOUT REMOVING ANY FLESH?	Yes 1 No..... 2 DK 8	
FG6. WAS THE GENITAL AREA SOWN CLOSED? <i>If necessary, probe: WAS IT SEALED?</i>	Yes 1 No..... 2 DK 8	
FG7. HOW OLD WERE YOU WHEN YOU WERE CIRCUMCISED? <i>If the respondent does not know the exact age, probe to get an estimate</i>	Age at circumcision ____ DK/Don't remember/Not sure..... 98	
FG8. WHO PERFORMED THE CIRCUMCISION?	Health professional Doctor..... 11 Nurse/Midwife 12 Other health professional (<i>specify</i>) 16 Traditional persons Traditional 'circumciser' 21 Traditional birth attendant 22 Other traditional (<i>specify</i>) 26 DK 98	
FG9. <i>Check CM5 for Number of daughters at home and CM7 for Number of daughters elsewhere, and sum the answers here</i>	Total number of living daughters..... ____	
FG10. JUST TO MAKE SURE THAT I HAVE THIS RIGHT, YOU HAVE (<i>total number in FG9</i>) LIVING DAUGHTERS. IS THIS CORRECT? <input type="checkbox"/> Yes <input type="checkbox"/> One or more living daughters ⇒Continue with FG11 <input type="checkbox"/> Does not have any living daughters ⇒ Go to FG22		

No ⇒ Check responses to CM1 – CM10 and make corrections as necessary, until FG10 = Yes

FG11. Ask the respondent to tell you the name(s) of her daughter(s), beginning with the youngest daughter (if more than one daughter). Write down the name of each daughter in FG12. Then, ask questions FG13 to FG20 for each daughter at a time.

The total number of daughters in FG12 should be equal to the number in FG9

If more than 4 daughters, use additional questionnaires

	Daughter #1	Daughter #2	Daughter #3	Daughter #4
FG12. Name of daughter	_____	_____	_____	_____
FG13. HOW OLD IS (name)?	Age ____	Age ____	Age ____	Age ____
FG14. Is (name) younger than 15 years of age?	Yes1 No2 <i>If "No", go to FG13 for next daughter. If no more daughters, go to FG22</i>	Yes1 No2 <i>If "No", go to FG13 for next daughter. If no more daughters, go to FG22</i>	Yes1 No2 <i>If "No", go to FG13 for next daughter. If no more daughters, go to FG22</i>	Yes1 No2 <i>If "No", go to FG13 for next daughter. If no more daughters, go to FG22</i>
FG15. IS (name) CIRCUMCISED?	Yes1 No2 <i>If "No", go to FG13 for next daughter. If no more daughters, go to FG22</i>	Yes1 No2 <i>If "No", go to FG13 for next daughter. If no more daughters, go to FG22</i>	Yes1 No2 <i>If "No", go to FG13 for next daughter. If no more daughters, go to FG22</i>	Yes1 No2 <i>If "No", go to FG13 for next daughter. If no more daughters, go to FG22</i>
FG16. HOW OLD WAS (name) WHEN THIS OCCURRED? <i>If the respondent does not know the age, probe to get an estimate.</i>	Age ____ DK98			

<p>FG17. NOW I WOULD LIKE TO ASK YOU WHAT WAS DONE TO (<i>name</i>) AT THAT TIME.</p> <p>WAS ANY FLESH REMOVED FROM THE GENITAL AREA?</p>	Yes1 ⇒FG19 No.....2 DK.....8	Yes1 ⇒FG19 No.....2 DK.....8	Yes1 ⇒FG19 No.....2 DK8	Yes1 ⇒FG19 No.....2 DK8
<p>FG18. WAS HER GENITAL AREA JUST NICKED WITHOUT REMOVING ANY FLESH?</p>	Yes1 No.....2 DK.....8	Yes1 No.....2 DK.....8	Yes1 No.....2 DK8	Yes1 No.....2 DK8
<p>FG19. WAS HER GENITAL AREA SEWN CLOSED?</p> <p><i>If necessary, probe:</i> WAS IT SEALED?</p>	Yes1 No.....2 DK.....8	Yes1 No.....2 DK.....8	Yes1 No.....2 DK8	Yes1 No.....2 DK8
<p>FG20. WHO PERFORMED THE CIRCUMCISION?</p>	Health professional Doctor11 Nurse/midwife...12 Other health professional (<i>specify</i>) _____ 16 Traditional persons Traditional 'circumciser'21 Traditional birth attendant.....22 Other traditional (<i>specify</i>) _____ 26 DK.....98	Health professional Doctor11 Nurse/midwife...12 Other health professional (<i>specify</i>) _____ 16 Traditional persons Traditional 'circumciser'21 Traditional birth attendant.....22 Other traditional (<i>specify</i>) _____ 26 DK.....98	Health professional Doctor11 Nurse/midwife...12 Other health professional (<i>specify</i>) _____ 16 Traditional persons Traditional 'circumciser'21 Traditional birth attendant.....22 Other traditional (<i>specify</i>) _____ 26 DK98	Health professional Doctor11 Nurse/midwife...12 Other health professional (<i>specify</i>) _____ 16 Traditional persons Traditional 'circumciser'21 Traditional birth attendant.....22 Other traditional (<i>specify</i>) _____ 26 DK98
<p>FG21.</p>	<p><i>Go back to FG13 for next daughter. If no more daughters, continue with FG22</i></p>	<p><i>Go back to FG13 for next daughter. If no more daughters, continue with FG22</i></p>	<p><i>Go back to FG13 for next daughter. If no more daughters, continue with FG22</i></p>	<p><i>Go back to FG13 in first column of additional questionnaire for next daughter. If no more daughters, continue with FG22</i></p>
				<p><i>Tick here if additional questionnaire used</i> <input type="checkbox"/></p>

<p>FG22. DO YOU THINK THIS PRACTICE SHOULD BE CONTINUED OR SHOULD IT BE DISCONTINUED?</p>	Continued..... 1 Discontinued 2 Depends..... 3 DK..... 8	
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ATTITUDES TOWARD DOMESTIC VIOLENCE		DV		
<p>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:</p>		Yes	No	DK
[A] IF SHE GOES OUT WITHOUT TELLING HIM?	Goes out without telling	1	2	8
[B] IF SHE NEGLECTS THE CHILDREN?	Neglects children	1	2	8
[C] IF SHE ARGUES WITH HIM?	Argues with him	1	2	8
[D] IF SHE REFUSES TO HAVE SEX WITH HIM?	Refuses sex.....	1	2	8
[E] IF SHE BURNS THE FOOD?	Burns food	1	2	8

MARRIAGE/UNION		MA
MA1. ARE YOU CURRENTLY MARRIED OR LIVING TOGETHER WITH A MAN AS IF MARRIED?	Yes, currently married1 Yes, living with a man.....2 No, not in union3	3⇒MA5
MA2. HOW OLD IS YOUR HUSBAND/PARTNER? <i>Probe:</i> HOW OLD WAS YOUR HUSBAND/PARTNER ON HIS LAST BIRTHDAY?	Age in years..... ____ DK.....98	
MA3. BESIDES YOURSELF, DOES YOUR HUSBAND/PARTNER HAVE ANY OTHER WIVES OR PARTNERS OR DOES HE LIVE WITH OTHER WOMEN AS IF MARRIED?	Yes1 No2	2⇒MA7
MA4. HOW MANY OTHER WIVES OR PARTNERS DOES HE HAVE?	Number..... ____ DK.....98	⇒MA7 98⇒MA7
MA5. HAVE YOU EVER BEEN MARRIED OR LIVED TOGETHER WITH A MAN AS IF MARRIED?	Yes, formerly married1 Yes, formerly lived with a man2 No3	3 ⇒Next Module
MA6. WHAT IS YOUR MARITAL STATUS NOW: ARE YOU WIDOWED, DIVORCED OR SEPARATED?	Widowed.....1 Divorced2 Separated.....3	
MA7. HAVE YOU BEEN MARRIED OR LIVED WITH A MAN ONLY ONCE OR MORE THAN ONCE?	Only once1 More than once.....2	1 ⇒MA8A 2 ⇒MA8B
MA8A. IN WHAT MONTH AND YEAR DID YOU MARRY OR START LIVING WITH A MAN AS IF MARRIED?	Date of (first) marriage Month..... ____ DK month.....98	
MA8B. IN WHAT MONTH AND YEAR DID YOU <u>FIRST</u> MARRY OR START LIVING WITH A MAN AS IF MARRIED?	Year ____ DK year.....9998	⇒Next Module
MA9. HOW OLD WERE YOU WHEN YOU FIRST STARTED LIVING WITH YOUR (<u>FIRST</u>) HUSBAND/PARTNER?	Age in years..... ____	

SEXUAL BEHAVIOUR		SB
<i>Check for the presence of others. Before continuing, ensure privacy.</i>		
<p>SB1. NOW I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT SEXUAL ACTIVITY IN ORDER TO GAIN A BETTER UNDERSTANDING OF SOME IMPORTANT LIFE ISSUES.</p> <p>THE INFORMATION YOU SUPPLY WILL REMAIN STRICTLY CONFIDENTIAL.</p> <p>HOW OLD WERE YOU WHEN YOU HAD SEXUAL INTERCOURSE FOR THE VERY FIRST TIME?</p>	<p>Never had intercourse 00</p> <p>Age in years _ _</p> <p>First time when started living with (first) husband/partner 95</p>	<p>00⇒Next Module</p>
<p>SB2. THE FIRST TIME YOU HAD SEXUAL INTERCOURSE, WAS A CONDOM USED?</p>	<p>Yes 1</p> <p>No 2</p> <p>DK / Don't remember 8</p>	
<p>SB3. WHEN WAS THE LAST TIME YOU HAD SEXUAL INTERCOURSE?</p> <p><i>Record answers in days, weeks or months if less than 12 months (one year). If 12 months (one year) or more, answer must be recorded in years.</i></p>	<p>Days ago 1 _ _</p> <p>Weeks ago 2 _ _</p> <p>Months ago 3 _ _</p> <p>Years ago 4 _ _</p>	<p>4⇒SB15</p>
<p>SB4. THE LAST TIME YOU HAD SEXUAL INTERCOURSE, WAS A CONDOM USED?</p>	<p>Yes 1</p> <p>No 2</p>	
<p>SB5. WHAT WAS YOUR RELATIONSHIP TO THIS PERSON WITH WHOM YOU LAST HAD SEXUAL INTERCOURSE?</p> <p><i>Probe to ensure that the response refers to the relationship at the time of sexual intercourse</i></p> <p><i>If 'boyfriend', then ask:</i> WERE YOU LIVING TOGETHER AS IF MARRIED? <i>If 'yes', circle '2'. If 'no', circle '3'.</i></p>	<p>Husband 1</p> <p>Cohabiting partner 2</p> <p>Boyfriend 3</p> <p>Casual acquaintance 4</p> <p>Other (specify) 6</p>	<p>3⇒SB7</p> <p>4⇒SB7</p> <p>6⇒SB7</p>
<p>SB6. Check MAI:</p> <p><input type="checkbox"/> Currently married or living with a man (MAI = 1 or 2) ⇒ Go to SB8</p> <p><input type="checkbox"/> Not married / Not in union (MAI = 3) ⇒ Continue with SB7</p>		
<p>SB7. HOW OLD IS THIS PERSON?</p> <p><i>If response is DK, probe:</i> ABOUT HOW OLD IS THIS PERSON?</p>	<p>Age of sexual partner _ _</p> <p>DK 98</p>	
<p>SB8. HAVE YOU HAD SEXUAL INTERCOURSE WITH ANY OTHER PERSON IN THE LAST 12 MONTHS?</p>	<p>Yes 1</p> <p>No 2</p>	<p>2⇒SB15</p>
<p>SB9. THE LAST TIME YOU HAD SEXUAL INTERCOURSE WITH THIS OTHER PERSON, WAS A CONDOM USED?</p>	<p>Yes 1</p> <p>No 2</p>	

<p>SB10. WHAT WAS YOUR RELATIONSHIP TO THIS PERSON?</p> <p><i>Probe to ensure that the response refers to the relationship at the time of sexual intercourse</i></p> <p><i>If 'boyfriend' then ask:</i> WERE YOU LIVING TOGETHER AS IF MARRIED? <i>If 'yes', circle '2'. If 'no', circle '3'.</i></p>	<p>Husband 1 Cohabiting partner 2 Boyfriend 3 Casual acquaintance 4 Other (<i>specify</i>) 6</p>	<p>3⇒SB12 4⇒SB12 6⇒SB12</p>
<p>SB11. <i>Check MA1 and MA7:</i></p> <p><input type="checkbox"/> <i>Currently married or living with a man (MA1 = 1 or 2) AND Married only once or lived with a man only once (MA7 = 1) ⇒ Go to SB13</i></p> <p><input type="checkbox"/> <i>Else ⇒ Continue with SB12</i></p>		
<p>SB12. HOW OLD IS THIS PERSON?</p> <p><i>If response is DK, probe:</i> ABOUT HOW OLD IS THIS PERSON?</p>	<p>Age of sexual partner..... _ _ DK 98</p>	
<p>SB13. OTHER THAN THESE TWO PERSONS, HAVE YOU HAD SEXUAL INTERCOURSE WITH ANY OTHER PERSON IN THE LAST 12 MONTHS?</p>	<p>Yes 1 No 2</p>	<p>2⇒SB15</p>
<p>SB14. IN TOTAL, WITH HOW MANY DIFFERENT PEOPLE HAVE YOU HAD SEXUAL INTERCOURSE IN THE LAST 12 MONTHS?</p>	<p>Number of partners _ _</p>	
<p>SB15. IN TOTAL, WITH HOW MANY DIFFERENT PEOPLE HAVE YOU HAD SEXUAL INTERCOURSE IN YOUR LIFETIME?</p> <p><i>If a non-numeric answer is given, probe to get an estimate.</i></p> <p><i>If number of partners is 95 or more, write '95'.</i></p>	<p>Number of lifetime partners _ _ DK 98</p>	

HIV/AIDS		HA
HA1. NOW I WOULD LIKE TO TALK WITH YOU ABOUT SOMETHING ELSE. HAVE YOU EVER HEARD OF AN ILLNESS CALLED AIDS?	Yes 1	2 ⇨ Next Module
	No 2	
HA2. CAN PEOPLE REDUCE THEIR CHANCE OF GETTING THE AIDS VIRUS BY HAVING JUST ONE UNINFECTED SEX PARTNER WHO HAS NO OTHER SEX PARTNERS?	Yes 1	
	No 2	
	DK 8	
HA3. CAN PEOPLE GET THE AIDS VIRUS BECAUSE OF WITCHCRAFT OR OTHER SUPERNATURAL MEANS?	Yes 1	
	No 2	
	DK 8	
HA4. CAN PEOPLE REDUCE THEIR CHANCE OF GETTING THE AIDS VIRUS BY USING A CONDOM EVERY TIME THEY HAVE SEX?	Yes 1	
	No 2	
	DK 8	
HA5. CAN PEOPLE GET THE AIDS VIRUS FROM MOSQUITO BITES?	Yes 1	
	No 2	
	DK 8	
HA6. CAN PEOPLE GET THE AIDS VIRUS BY SHARING FOOD WITH A PERSON WHO HAS THE AIDS VIRUS?	Yes 1	
	No 2	
	DK 8	
HA7. IS IT POSSIBLE FOR A HEALTHY-LOOKING PERSON TO HAVE THE AIDS VIRUS?	Yes 1	
	No 2	
	DK 8	
HA8. CAN THE VIRUS THAT CAUSES AIDS BE TRANSMITTED FROM A MOTHER TO HER BABY:		
		Yes No DK
	[A] DURING PREGNANCY?	During pregnancy 1 2 8
	[B] DURING DELIVERY?	During delivery 1 2 8
	[C] BY BREASTFEEDING?	By breastfeeding 1 2 8
HA9. IN YOUR OPINION, IF A FEMALE TEACHER HAS THE AIDS VIRUS BUT IS NOT SICK, SHOULD SHE BE ALLOWED TO CONTINUE TEACHING IN SCHOOL?	Yes 1	
	No 2	
	DK/Not sure/Depends 8	
HA10. WOULD YOU BUY FRESH VEGETABLES FROM A SHOPKEEPER OR VENDOR IF YOU KNEW THAT THIS PERSON HAD THE AIDS VIRUS?	Yes 1	
	No 2	
	DK/Not sure/Depends 8	
HA11. IF A MEMBER OF YOUR FAMILY GOT INFECTED WITH THE AIDS VIRUS, WOULD YOU WANT IT TO REMAIN A SECRET?	Yes 1	
	No 2	
	DK/Not sure/Depends 8	
HA12. IF A MEMBER OF YOUR FAMILY BECAME SICK WITH AIDS, WOULD YOU BE WILLING TO CARE FOR HER OR HIM IN YOUR OWN HOUSEHOLD?	Yes 1	
	No 2	
	DK/Not sure/Depends 8	

<p>HA13. Check CM13: Any live birth in last 2 years?</p> <p><input type="checkbox"/> No live birth in last 2 years (CM13= "No" or blank) ⇒ Go to HA24</p> <p><input type="checkbox"/> One or more live births in last 2 years ⇒ Continue with HA14</p>																						
<p>HA14. Check MN1: Received antenatal care?</p> <p><input type="checkbox"/> Received antenatal care ⇒ Continue with HA15</p> <p><input type="checkbox"/> Did not receive antenatal care ⇒ Go to HA24</p>																						
<p>HA15. DURING ANY OF THE ANTENATAL VISITS FOR YOUR PREGNANCY WITH (name),</p> <p>WERE YOU GIVEN ANY INFORMATION ABOUT:</p> <p>[A] BABIES GETTING THE AIDS VIRUS FROM THEIR MOTHER?</p> <p>[B] THINGS THAT YOU CAN DO TO PREVENT GETTING THE AIDS VIRUS?</p> <p>[C] GETTING TESTED FOR THE AIDS VIRUS?</p> <p>WERE YOU:</p> <p>[D] OFFERED A TEST FOR THE AIDS VIRUS?</p>	<table border="1"> <thead> <tr> <th></th> <th>Y</th> <th>N</th> <th>DK</th> </tr> </thead> <tbody> <tr> <td>AIDS from mother.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>Things to do.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>Tested for AIDS.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>Offered a test.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> </tbody> </table>		Y	N	DK	AIDS from mother.....	1	2	8	Things to do.....	1	2	8	Tested for AIDS.....	1	2	8	Offered a test.....	1	2	8	
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Offered a test.....	1	2	8																			
<p>HA16. I DON'T WANT TO KNOW THE RESULTS, BUT WERE YOU TESTED FOR THE AIDS VIRUS AS PART OF YOUR ANTENATAL CARE?</p>	<p>Yes 1</p> <p>No 2</p> <p>DK..... 8</p>	<p>2⇒HA19</p> <p>8⇒HA19</p>																				
<p>HA17. I DON'T WANT TO KNOW THE RESULTS, BUT DID YOU GET THE RESULTS OF THE TEST?</p>	<p>Yes 1</p> <p>No 2</p> <p>DK..... 8</p>	<p>2⇒HA22</p> <p>8⇒HA22</p>																				
<p>HA18. REGARDLESS OF THE RESULT, ALL WOMEN WHO ARE TESTED ARE SUPPOSED TO RECEIVE COUNSELLING AFTER GETTING THE RESULT.</p> <p>AFTER YOU WERE TESTED, DID YOU RECEIVE COUNSELLING?</p>	<p>Yes 1</p> <p>No 2</p> <p>DK..... 8</p>	<p>1⇒HA22</p> <p>2⇒HA22</p> <p>8⇒HA22</p>																				
<p>HA19. Check MN17: Birth delivered by health professional (A, B or C)?</p> <p><input type="checkbox"/> Yes, birth delivered by health professional (MN17 = A, B or C) ⇒Continue with HA20</p> <p><input type="checkbox"/> No, birth not delivered by health professional (MN17 = else) ⇒Go to HA24</p>																						
<p>HA20. I DON'T WANT TO KNOW THE RESULTS, BUT WERE YOU TESTED FOR THE AIDS VIRUS BETWEEN THE TIME YOU WENT FOR DELIVERY BUT BEFORE THE BABY WAS BORN?</p>	<p>Yes 1</p> <p>No 2</p>	<p>2⇒HA24</p>																				
<p>HA21. I DON'T WANT TO KNOW THE RESULTS, BUT DID YOU GET THE RESULTS OF THE TEST?</p>	<p>Yes 1</p> <p>No 2</p>																					

HA22. HAVE YOU BEEN TESTED FOR THE AIDS VIRUS SINCE THAT TIME YOU WERE TESTED DURING YOUR PREGNANCY?	Yes	1	1⇒HA25
	No	2	

HA23. WHEN WAS THE MOST RECENT TIME YOU WERE TESTED FOR THE AIDS VIRUS?	Less than 12 months ago.....	1	1 ⇒Next Module
	12-23 months ago	2	2 ⇒Next Module
	2 or more years ago	3	3 ⇒Next Module
HA24. I DON'T WANT TO KNOW THE RESULTS, BUT HAVE YOU EVER BEEN TESTED TO SEE IF YOU HAVE THE AIDS VIRUS?	Yes	1	2⇒HA27
	No.....	2	
HA25. WHEN WAS THE MOST RECENT TIME YOU WERE TESTED?	Less than 12 months ago.....	1	
	12-23 months ago	2	
	2 or more years ago.....	3	
HA26. I DON'T WANT TO KNOW THE RESULTS, BUT DID YOU GET THE RESULTS OF THE TEST?	Yes	1	1 ⇒Next Module
	No.....	2	2 ⇒Next Module
	DK.....	8	8 ⇒Next Module
HA27. DO YOU KNOW OF A PLACE WHERE PEOPLE CAN GO TO GET TESTED FOR THE AIDS VIRUS?	Yes	1	
	No.....	2	

TOBACCO AND ALCOHOL USE		TA
TA1. HAVE YOU EVER TRIED CIGARETTE SMOKING, EVEN ONE OR TWO PUFFS?	Yes 1 No 2	2⇒TA6
TA2. HOW OLD WERE YOU WHEN YOU SMOKED A WHOLE CIGARETTE FOR THE FIRST TIME?	Never smoked a whole cigarette 00 Age ____	00⇒TA6
TA3. DO YOU CURRENTLY SMOKE CIGARETTES?	Yes 1 No 2	2⇒TA6
TA4. IN THE LAST 24 HOURS, HOW MANY CIGARETTES DID YOU SMOKE?	Number of cigarettes ____	
TA5. DURING THE LAST ONE MONTH, ON HOW MANY DAYS DID YOU SMOKE CIGARETTES? <i>If less than 10 days, record the number of days. If 10 days or more but less than a month, circle "10". If "everyday" or "almost every day", circle "30"</i>	Number of days 0 ____ 10 days or more but less than a month 10 Everyday / Almost every day 30	
TA6. HAVE YOU EVER TRIED ANY SMOKED TOBACCO PRODUCTS OTHER THAN CIGARETTES, SUCH AS CIGARS, WATER PIPE, CIGARILLOS OR PIPE?	Yes 1 No 2	2⇒TA10
TA7. DURING THE LAST ONE MONTH, DID YOU USE ANY SMOKED TOBACCO PRODUCTS?	Yes 1 No 2	2⇒TA10
TA8. WHAT TYPE OF SMOKED TOBACCO PRODUCT DID YOU USE OR SMOKE DURING THE LAST ONE MONTH? <i>Circle all mentioned.</i>	Cigars A Water pipe B Cigarillos C Pipe D Other (<i>specify</i>) X	
TA9. DURING THE LAST ONE MONTH, ON HOW MANY DAYS DID YOU USE SMOKED TOBACCO PRODUCTS? <i>If less than 10 days, record the number of days. If 10 days or more but less than a month, circle "10". If "everyday" or "almost every day", circle "30"</i>	Number of days 0 ____ 10 days or more but less than a month 10 Everyday / Almost every day 30	
TA10. HAVE YOU EVER TRIED ANY FORM OF SMOKELESS TOBACCO PRODUCTS, SUCH AS CHEWING TOBACCO, SNUFF, OR DIP?	Yes 1 No 2	2 ⇒TA14
TA11. DURING THE LAST ONE MONTH, DID YOU USE ANY SMOKELESS TOBACCO PRODUCTS?	Yes 1 No 2	2 ⇒TA14

<p>TA12. WHAT TYPE OF SMOKELESS TOBACCO PRODUCT DID YOU USE DURING THE LAST ONE MONTH?</p> <p><i>Circle all mentioned.</i></p>	<p>Chewing tobacco..... A Snuff B Dip C Other (<i>specify</i>) _____ X</p>	
<p>TA13. DURING THE LAST ONE MONTH, ON HOW MANY DAYS DID YOU USE SMOKELESS TOBACCO PRODUCTS?</p> <p><i>If less than 10 days, record the number of days. If 10 days or more but less than a month, circle "10". If "everyday" or "almost every day", circle "30"</i></p>	<p>Number of days0 ____ 10 days or more but less than a month..... 10 Everyday / Almost every day..... 30</p>	
<p>TA14. NOW I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT DRINKING ALCOHOL.</p> <p>HAVE YOU EVER DRUNK ALCOHOL?</p>	<p>Yes 1 No 2</p>	<p>2⇒Next Module</p>
<p>TA15. WE COUNT ONE DRINK OF ALCOHOL AS ONE CAN OR BOTTLE OF BEER, ONE GLASS OF WINE, OR ONE SHOT OF COGNAC, VODKA, WHISKEY, RUM OR CHANG'A</p> <p>HOW OLD WERE YOU WHEN YOU HAD YOUR FIRST DRINK OF ALCOHOL, OTHER THAN A FEW SIPS?</p>	<p>Never had one drink of alcohol 00 Age ____ ____</p>	<p>00⇒Next Module</p>
<p>TA16. DURING THE LAST ONE MONTH, ON HOW MANY DAYS DID YOU HAVE AT LEAST ONE DRINK OF ALCOHOL?</p> <p><i>If respondent did not drink, circle "00". If less than 10 days, record the number of days. If 10 days or more but less than a month, circle "10". If "everyday" or "almost every day", circle "30"</i></p>	<p>Did not have one drink in last one month.. 00 Number of days0 ____ 10 days or more but less than a month..... 10 Everyday / Almost every day..... 30</p>	<p>00⇒Next Module</p>
<p>TA17. IN THE LAST ONE MONTH, ON THE DAYS THAT YOU DRANK ALCOHOL, HOW MANY DRINKS DID YOU USUALLY HAVE PER DAY?</p>	<p>Number of drinks ____ ____</p>	

LIFE SATISFACTION		LS
<p>LS1. Check WB2: Age of respondent is between 15 and 24?</p> <p><input type="checkbox"/> Age 25-49 ⇒ Go to WM11</p> <p><input type="checkbox"/> Age 15-24 ⇒ Continue with LS2</p>		
<p>LS2. I WOULD LIKE TO ASK YOU SOME SIMPLE QUESTIONS ON HAPPINESS AND SATISFACTION.</p> <p>FIRST, TAKING ALL THINGS TOGETHER, WOULD YOU SAY YOU ARE VERY HAPPY, SOMEWHAT HAPPY, NEITHER HAPPY NOR UNHAPPY, SOMEWHAT UNHAPPY OR VERY UNHAPPY?</p> <p>YOU CAN ALSO LOOK AT THESE PICTURES TO HELP YOU WITH YOUR RESPONSE.</p> <p><i>Show side 1 of response card and explain what each symbol represents. Circle the response code selected by the respondent.</i></p>	<p>Very happy 1</p> <p>Somewhat happy 2</p> <p>Neither happy nor unhappy 3</p> <p>Somewhat unhappy 4</p> <p>Very unhappy 5</p>	
<p>LS3. NOW I WILL ASK YOU QUESTIONS ABOUT YOUR LEVEL OF SATISFACTION IN DIFFERENT AREAS.</p> <p>IN EACH CASE, WE HAVE FIVE POSSIBLE RESPONSES: PLEASE TELL ME, FOR EACH QUESTION, WHETHER YOU ARE VERY SATISFIED, SOMEWHAT SATISFIED, NEITHER SATISFIED NOR UNSATISFIED, SOMEWHAT UNSATISFIED OR VERY UNSATISFIED.</p> <p>AGAIN, YOU CAN LOOK AT THESE PICTURES TO HELP YOU WITH YOUR RESPONSE.</p> <p><i>Show side 2 of response card and explain what each symbol represents. Circle the response code selected by the respondent, for questions LS3 to LS13.</i></p> <p>HOW SATISFIED ARE YOU WITH YOUR FAMILY LIFE?</p>	<p>Very satisfied 1</p> <p>Somewhat satisfied 2</p> <p>Neither satisfied nor unsatisfied 3</p> <p>Somewhat unsatisfied 4</p> <p>Very unsatisfied 5</p>	
<p>LS4. HOW SATISFIED ARE YOU WITH YOUR FRIENDSHIPS?</p>	<p>Very satisfied 1</p> <p>Somewhat satisfied 2</p> <p>Neither satisfied nor unsatisfied 3</p> <p>Somewhat unsatisfied 4</p> <p>Very unsatisfied 5</p>	
<p>LS5. DURING THE current 2013/14 SCHOOL YEAR, DID YOU ATTEND SCHOOL AT ANY TIME?</p>	<p>Yes 1</p> <p>No 2</p>	<p>2 ⇒ LS7</p>

LS6. HOW SATISFIED (<i>are/were</i>) YOU WITH YOUR SCHOOL?	Very satisfied..... 1 Somewhat satisfied 2 Neither satisfied nor unsatisfied..... 3 Somewhat unsatisfied 4 Very unsatisfied..... 5	
LS7. HOW SATISFIED ARE YOU WITH YOUR CURRENT JOB? <i>If the respondent says that she does not have a job, circle "0" and continue with the next question. Do not probe to find out how she feels about not having a job, unless she tells you herself.</i>	Does not have a job 0 Very satisfied..... 1 Somewhat satisfied 2 Neither satisfied nor unsatisfied..... 3 Somewhat unsatisfied 4 Very unsatisfied..... 5	
LS8. HOW SATISFIED ARE YOU WITH YOUR HEALTH?	Very satisfied..... 1 Somewhat satisfied 2 Neither satisfied nor unsatisfied..... 3 Somewhat unsatisfied 4 Very unsatisfied..... 5	
LS9. HOW SATISFIED ARE YOU WITH WHERE YOU LIVE? <i>If necessary, explain that the question refers to the living environment, including the neighbourhood and the dwelling.</i>	Very satisfied..... 1 Somewhat satisfied 2 Neither satisfied nor unsatisfied..... 3 Somewhat unsatisfied 4 Very unsatisfied..... 5	
LS10. HOW SATISFIED ARE YOU WITH HOW PEOPLE AROUND YOU GENERALLY TREAT YOU?	Very satisfied..... 1 Somewhat satisfied 2 Neither satisfied nor unsatisfied..... 3 Somewhat unsatisfied 4 Very unsatisfied..... 5	
LS11. HOW SATISFIED ARE YOU WITH THE WAY YOU LOOK?	Very satisfied..... 1 Somewhat satisfied 2 Neither satisfied nor unsatisfied..... 3 Somewhat unsatisfied 4 Very unsatisfied..... 5	
LS12. HOW SATISFIED ARE YOU WITH YOUR LIFE, OVERALL?	Very satisfied..... 1 Somewhat satisfied 2 Neither satisfied nor unsatisfied..... 3 Somewhat unsatisfied 4 Very unsatisfied..... 5	
LS13. HOW SATISFIED ARE YOU WITH YOUR CURRENT INCOME? <i>If the respondent says that she does not have any income, circle "0" and continue with the next question. Do not probe to find out how she feels about not having any income, unless she tells you herself.</i>	Does not have any income 0 Very satisfied..... 1 Somewhat satisfied 2 Neither satisfied nor unsatisfied..... 3 Somewhat unsatisfied 4 Very unsatisfied..... 5	
LS14. COMPARED TO THIS TIME LAST YEAR, WOULD YOU SAY THAT YOUR LIFE HAS IMPROVED, STAYED MORE OR LESS THE SAME, OR WORSENERD, OVERALL?	Improved 1 More or less the same 2 Worsened 3	

<p>LS15. AND IN ONE YEAR FROM NOW, DO YOU EXPECT THAT YOUR LIFE WILL BE BETTER, WILL BE MORE OR LESS THE SAME, OR WILL BE WORSE, OVERALL?</p>	<p>Better..... 1 More or less the same 2 Worse..... 3</p>	
--	---	--

WM11. <i>Record the time.</i>	Hour and minutes :	
--------------------------------------	--------------------------------	--

WM12. *Check List of Household Members, columns HL7B and HL15.*
Is the respondent the mother or caretaker of any child age 0-4 living in this household?

Yes ⇒ Proceed to complete the result of woman’s interview (WM7) on the cover page and then go to QUESTIONNAIRE FOR CHILDREN UNDER FIVE for that child and start the interview with this respondent.

No ⇒ End the interview with this respondent by thanking her for her cooperation and proceed to complete the result of the woman’s interview (WM7) on the cover page

Interviewer's Observations

Field Editor's Observations

Supervisor's Observations

RESPONSE CARD:

SIDE 1

Very happy	Somewhat happy	Neither happy, nor unhappy	Somewhat unhappy	Very unhappy
				

SIDE 2

Very satisfied	Somewhat satisfied	Neither satisfied, nor unsatisfied	Somewhat unsatisfied	Very unsatisfied
				

QUESTIONNAIRE FOR CHILDREN UNDER FIVE WESTERN AND NORTH RIFT SURVEY



UNDER-FIVE CHILD INFORMATION PANEL		UF
<p><i>This questionnaire is to be administered to all mothers or caretakers (see List of Household Members, column HL15) who care for a child that lives with them and is under the age of 5 years (see List of Household Members, column HL7B). A separate questionnaire should be used for each eligible child.</i></p>		
UF1. Cluster number: _____	UF2. Household number: _____	
UF3. Child's name: Name _____	UF4. Child's line number: _____	
UF5. Mother's/Caretaker's name: Name _____	UF6. Mother's/Caretaker's line number: _____	
UF7. Interviewer's name and number: Name _____	UF8. Day/Month/Year of interview: _____ / _____ / 201 _____	

<p><i>Repeat greeting if not already read to this respondent:</i></p> <p>WE ARE FROM THE UNIVERSITY OF NAIROBI AND KENYA NATIONAL BUREAU OF STATISTICS. WE ARE CONDUCTING A SURVEY ABOUT THE SITUATION OF CHILDREN, FAMILIES AND HOUSEHOLDS. I WOULD LIKE TO TALK TO YOU ABOUT (<i>child's name from UF3</i>)'S HEALTH AND WELL-BEING. THE INTERVIEW WILL TAKE ABOUT 20 TO 35 MINUTES. ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND ANONYMOUS.</p>	<p><i>If greeting at the beginning of the household questionnaire has already been read to this person, then read the following:</i></p> <p>NOW I WOULD LIKE TO TALK TO YOU MORE ABOUT (<i>child's name from UF3</i>)'S HEALTH AND OTHER TOPICS. THIS INTERVIEW WILL TAKE ABOUT 20 TO 35 MINUTES. AGAIN, ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND ANONYMOUS.</p>
<p>MAY I START NOW?</p> <p><input type="checkbox"/> <i>Yes, permission is given ⇒ Go to UF12 to record the time and then begin the interview.</i></p> <p><input type="checkbox"/> <i>No, permission is not given ⇒ Circle '03' in UF9. Discuss this result with your supervisor</i></p>	

UF9. Result of interview for children under 5 <i>Codes refer to mother/caretaker.</i>	Completed	01
	Not at home	02
	Refused	03
	Partly completed.....	04
	Incapacitated	05
	Other (<i>specify</i>)	96

UF10. Field editor's name and number: Name _____	UF11. Main data entry clerk's name and number: Name _____
--	---

UF12. Record the time.	Hour and minutes ____ : ____
-------------------------------	------------------------------

AGE	AG
AG1 NOW I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT THE DEVELOPMENT AND HEALTH OF (name). ON WHAT DAY, MONTH AND YEAR WAS (name) BORN? <i>Probe:</i> 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 20 ____
AG2. HOW OLD IS (name)? <i>Probe:</i> HOW OLD WAS (name) AT HIS/HER LAST BIRTHDAY? Record age in completed years. Record '0' if less than 1 year. Compare and correct AG1 and/or AG2 if inconsistent.	Age (in completed years)

BIRTH REGISTRATION		BR
<p>BR1. DOES <i>(name)</i> HAVE A BIRTH CERTIFICATE?</p> <p><i>If yes, ask:</i> MAY I SEE IT?</p>	<p>Yes, seen..... 1</p> <p>Yes, not seen.....2</p> <p>No3</p> <p>DK.....8</p>	<p>1⇒Next Module</p> <p>2⇒Next Module</p>
<p>BR2. HAS <i>(name)</i>'S BIRTH BEEN REGISTERED WITH THE CIVIL AUTHORITIES?</p>	<p>Yes 1</p> <p>No2</p> <p>DK.....8</p>	<p>1⇒Next Module</p>
<p>BR3. DO YOU KNOW HOW TO REGISTER <i>(name)</i>'S BIRTH?</p>	<p>Yes 1</p> <p>No2</p>	

EARLY CHILDHOOD DEVELOPMENT		EC																
<p>EC1. HOW MANY CHILDREN’S BOOKS OR PICTURE BOOKS DO YOU HAVE FOR <i>(name)</i>?</p>	<p>None00</p> <p>Number of children’s books.....0 __</p> <p>Ten or more books 10</p>																	
<p>EC2. I AM INTERESTED IN LEARNING ABOUT THE THINGS THAT <i>(name)</i> PLAYS WITH WHEN HE/SHE IS AT HOME.</p> <p>DOES HE/SHE PLAY WITH:</p> <p>[A] HOMEMADE TOYS (SUCH AS DOLLS, CARS, OR OTHER TOYS MADE AT HOME)?</p> <p>[B] TOYS FROM A SHOP OR MANUFACTURED TOYS?</p> <p>[C] HOUSEHOLD OBJECTS (SUCH AS BOWLS OR POTS) OR OBJECTS FOUND OUTSIDE (SUCH AS STICKS, ROCKS, ANIMAL SHELLS OR LEAVES)?</p> <p><i>If the respondent says “YES” to the categories above, then probe to learn specifically what the child plays with to ascertain the response</i></p>	<table border="0"> <tr> <td></td> <td style="text-align: right;">Y</td> <td style="text-align: right;">N</td> <td style="text-align: right;">DK</td> </tr> <tr> <td>Homemade toys</td> <td style="text-align: right;">1</td> <td style="text-align: right;">2</td> <td style="text-align: right;">8</td> </tr> <tr> <td>Toys from a shop.....</td> <td style="text-align: right;">1</td> <td style="text-align: right;">2</td> <td style="text-align: right;">8</td> </tr> <tr> <td>Household objects or outside objects</td> <td style="text-align: right;">1</td> <td style="text-align: right;">2</td> <td style="text-align: right;">8</td> </tr> </table>		Y	N	DK	Homemade toys	1	2	8	Toys from a shop.....	1	2	8	Household objects or outside objects	1	2	8	
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Household objects or outside objects	1	2	8															
<p>EC3. SOMETIMES ADULTS TAKING CARE OF CHILDREN HAVE TO LEAVE THE HOUSE TO GO SHOPPING, WASH CLOTHES, OR FOR OTHER REASONS AND HAVE TO LEAVE YOUNG CHILDREN.</p> <p>ON HOW MANY DAYS IN THE PAST WEEK WAS <i>(name)</i>:</p> <p>[A] LEFT ALONE FOR MORE THAN AN HOUR?</p> <p>[B] LEFT IN THE CARE OF ANOTHER CHILD, THAT IS, SOMEONE LESS THAN 10 YEARS OLD, FOR MORE THAN AN HOUR?</p> <p><i>If ‘none’ enter ‘0’. If ‘don’t know’ enter ‘8’</i></p>	<p>Number of days left alone for more than an hour</p> <p>Number of days left with other child for more than an hour</p>																	
<p>EC4. Check AG2: Age of child</p> <p><input type="checkbox"/> Child age 0, 1 or 2 ⇒ Go to Next Module</p> <p><input type="checkbox"/> Child age 3 or 4 ⇒ Continue with EC5</p>																		
<p>EC5. DOES <i>(name)</i> ATTEND ANY ORGANIZED LEARNING OR EARLY CHILDHOOD EDUCATION PROGRAMME, SUCH AS A PRIVATE OR GOVERNMENT FACILITY, INCLUDING KINDERGARTEN OR COMMUNITY CHILD CARE?</p>	<p>Yes 1</p> <p>No2</p> <p>DK.....8</p>																	

<p>EC7. IN THE PAST 3 DAYS, DID YOU OR ANY HOUSEHOLD MEMBER AGE 15 OR OVER ENGAGE IN ANY OF THE FOLLOWING ACTIVITIES WITH <i>(name)</i>:</p> <p><i>If yes, ask:</i> WHO ENGAGED IN THIS ACTIVITY WITH <i>(name)</i>?</p> <p><i>Circle all that apply.</i></p> <p>[A] READ BOOKS TO OR LOOKED AT PICTURE BOOKS WITH <i>(name)</i>?</p> <p>[B] TOLD STORIES TO <i>(name)</i>?</p> <p>[C] SANG SONGS TO <i>(name)</i> OR WITH <i>(name)</i>, INCLUDING LULLABIES?</p> <p>[D] TOOK <i>(name)</i> OUTSIDE THE HOME, COMPOUND, YARD OR ENCLOSURE?</p> <p>[E] PLAYED WITH <i>(name)</i>?</p> <p>[F] NAMED, COUNTED, OR DREW THINGS TO OR WITH <i>(name)</i>?</p>	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%;">Mother</th> <th style="width: 15%;">Father</th> <th style="width: 15%;">Other</th> <th style="width: 15%;">No one</th> </tr> </thead> <tbody> <tr> <td>Read books</td> <td style="text-align: center;">A</td> <td style="text-align: center;">B</td> <td style="text-align: center;">X</td> <td style="text-align: center;">Y</td> </tr> <tr> <td>Told stories</td> <td style="text-align: center;">A</td> <td style="text-align: center;">B</td> <td style="text-align: center;">X</td> <td style="text-align: center;">Y</td> </tr> <tr> <td>Sang songs</td> <td style="text-align: center;">A</td> <td style="text-align: center;">B</td> <td style="text-align: center;">X</td> <td style="text-align: center;">Y</td> </tr> <tr> <td>Took outside</td> <td style="text-align: center;">A</td> <td style="text-align: center;">B</td> <td style="text-align: center;">X</td> <td style="text-align: center;">Y</td> </tr> <tr> <td>Played with</td> <td style="text-align: center;">A</td> <td style="text-align: center;">B</td> <td style="text-align: center;">X</td> <td style="text-align: center;">Y</td> </tr> <tr> <td>Named/counted</td> <td style="text-align: center;">A</td> <td style="text-align: center;">B</td> <td style="text-align: center;">X</td> <td style="text-align: center;">Y</td> </tr> </tbody> </table>		Mother	Father	Other	No one	Read books	A	B	X	Y	Told stories	A	B	X	Y	Sang songs	A	B	X	Y	Took outside	A	B	X	Y	Played with	A	B	X	Y	Named/counted	A	B	X	Y	
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<p>EC8. I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT THE HEALTH AND DEVELOPMENT OF <i>(name)</i>. 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 <i>(name)</i>'S DEVELOPMENT.</p> <p>CAN <i>(name)</i> IDENTIFY OR NAME AT LEAST TEN LETTERS OF THE ALPHABET?</p>	<p>Yes1</p> <p>No2</p> <p>DK.....8</p>																																				
<p>EC9. CAN <i>(name)</i> READ AT LEAST FOUR SIMPLE, POPULAR WORDS?</p>	<p>Yes1</p> <p>No2</p> <p>DK.....8</p>																																				
<p>EC10. DOES <i>(name)</i> KNOW THE NAME AND RECOGNIZE THE SYMBOL OF ALL NUMBERS FROM 1 TO 10?</p>	<p>Yes1</p> <p>No2</p> <p>DK.....8</p>																																				
<p>EC11. CAN <i>(name)</i> PICK UP A SMALL OBJECT WITH TWO FINGERS, LIKE A STICK OR A ROCK FROM THE GROUND?</p>	<p>Yes1</p> <p>No2</p> <p>DK.....8</p>																																				
<p>EC12. IS <i>(name)</i> SOMETIMES TOO SICK TO PLAY?</p>	<p>Yes1</p> <p>No2</p> <p>DK.....8</p>																																				
<p>EC13. DOES <i>(name)</i> FOLLOW SIMPLE DIRECTIONS ON HOW TO DO SOMETHING CORRECTLY?</p>	<p>Yes1</p> <p>No2</p>																																				

	DK.....8	
EC14. WHEN GIVEN SOMETHING TO DO, IS <i>(name)</i> ABLE TO DO IT INDEPENDENTLY?	Yes1 No2 DK.....8	
EC15. DOES <i>(name)</i> GET ALONG WELL WITH OTHER CHILDREN?	Yes1 No2 DK.....8	
EC16. DOES <i>(name)</i> KICK, BITE, OR HIT OTHER CHILDREN OR ADULTS?	Yes1 No2 DK.....8	
EC17. DOES <i>(name)</i> GET DISTRACTED EASILY?	Yes1 No2 DK.....8	

IMMUNIZATION										IM
<p><i>If an immunization (child health) card is available, copy the dates in IM3 for each type of immunization and Vitamin A recorded on the card. IM6-IM17 will only be asked when a card is not available.</i></p>										
<p>IM1. DO YOU HAVE A CARD WHERE (name)'S VACCINATIONS ARE WRITTEN DOWN?</p> <p><i>If yes: MAY I SEE IT PLEASE?</i></p>				Yes, seen 1 Yes, not seen 2 No card 3				1⇒IM3 2⇒IM6		
<p>IM2. DID YOU EVER HAVE A VACCINATION CARD FOR (name)?</p>				Yes 1 No 2				1⇒IM6 2⇒IM6		
<p>IM3. (a) Copy dates for each vaccination from the card. (b) Write '44' in day column if card shows that vaccination was given but no date recorded.</p>				Date of Immunization						
				Day		Month		Year		
BCG	BCG									
POLIO AT BIRTH	OPV0									
POLIO 1	OPV1									
POLIO 2	OPV2									
POLIO 3	OPV3									
DPT 1	DPT1									
DPT 2	DPT2									
DPT 3	DPT3									
HEPB AT BIRTH	HEP0									
HEPB 1	HEP1									
HEPB 2	HEP2									
HEPB 3	HEP3									
HIB 1	HIB1									
HIB 2	HIB2									
HIB 3	HIB3									
MEASLES (OR MMR OR MR)	MEASLES									
YELLOW FEVER	YF									
VITAMIN A (FIRST DOSE)	VITA1									
VITAMIN A (SECOND DOSE)	VITA2									
<p>IM4. Check IM3. Are all vaccines (BCG to Yellow Fever) recorded?</p> <p><input type="checkbox"/> Yes ⇒Go to IM19</p>										

<input type="checkbox"/> <i>No</i> ⇒ Continue with IM5		
<p>IM5. IN ADDITION TO WHAT IS RECORDED ON THIS CARD, DID (<i>name</i>) RECEIVE ANY OTHER VACCINATIONS – INCLUDING VACCINATIONS RECEIVED IN CAMPAIGNS OR IMMUNIZATION DAYS OR CHILD HEALTH DAYS?</p> <p><input type="checkbox"/> <i>Yes</i> ⇒ Go back to IM3 and probe for these vaccinations and write ‘66’ in the corresponding day column for each vaccine mentioned. When finished, skip to IM19</p> <p><input type="checkbox"/> <i>No/DK</i> ⇒ Go to IM19</p>		
IM6. HAS (<i>name</i>) EVER RECEIVED ANY VACCINATIONS TO PREVENT HIM/HER FROM GETTING DISEASES, INCLUDING VACCINATIONS RECEIVED IN A CAMPAIGN OR IMMUNIZATION DAY OR CHILD HEALTH DAY?	Yes..... 1 No 2 DK..... 8	2⇒IM19 8⇒IM19
IM7. HAS (<i>name</i>) EVER RECEIVED A BCG VACCINATION AGAINST TUBERCULOSIS – THAT IS, AN INJECTION IN THE ARM OR SHOULDER THAT USUALLY CAUSES A SCAR?	Yes..... 1 No 2 DK..... 8	
IM8. HAS (<i>name</i>) EVER RECEIVED ANY VACCINATION DROPS IN THE MOUTH TO PROTECT HIM/HER FROM POLIO?	Yes..... 1 No 2 DK..... 8	2⇒IM11 8⇒IM11
IM9. WAS THE FIRST POLIO VACCINE RECEIVED IN THE FIRST TWO WEEKS AFTER BIRTH?	Yes..... 1 No 2	
IM10. HOW MANY TIMES WAS THE POLIO VACCINE RECEIVED?	Number of times	
IM11. HAS (<i>name</i>) EVER RECEIVED A DPT VACCINATION – THAT IS, AN INJECTION IN THE THIGH TO PREVENT HIM/HER FROM GETTING TETANUS, WHOOPING COUGH, OR DIPHTHERIA? <i>Probe by indicating that DPT vaccination is sometimes given at the same time as Polio</i>	Yes..... 1 No 2 DK..... 8	2⇒IM13 8⇒IM13
IM12. HOW MANY TIMES WAS THE DPT VACCINE RECEIVED?	Number of times	
IM13. HAS (<i>name</i>) EVER RECEIVED A HEPATITIS B VACCINATION – THAT IS, AN INJECTION IN THE THIGH TO PREVENT HIM/HER FROM GETTING HEPATITIS B? <i>Probe by indicating that the Hepatitis B vaccine is sometimes given at the same time as Polio and DPT vaccines</i>	Yes..... 1 No 2 DK..... 8	2⇒IM15A 8⇒IM15A
IM14. WAS THE FIRST HEPATITIS B VACCINE RECEIVED WITHIN 24 HOURS AFTER BIRTH?	Yes..... 1 No 2 DK..... 8	
IM15. HOW MANY TIMES WAS THE HEPATITIS B RECEIVED?	Number of times	
IM15A. HAS (<i>name</i>) EVER RECEIVED A Hib VACCINATION – THAT IS, AN INJECTION IN THE THIGH TO PREVENT HIM/HER FROM GETTING HAEMOPHILUS INFLUENZAE TYPE B?	Yes..... 1 No 2 DK..... 8	2⇒IM16 8⇒IM16

<p><i>Probe by indicating that the Hib vaccine is sometimes given at the same time as Polio and DPT vaccines</i></p>		
<p>IM15B. HOW MANY TIMES WAS THE HIB VACCINE RECEIVED?</p>	<p>Number of times _</p>	
<p>IM16. HAS (<i>name</i>) EVER RECEIVED A MEASLES INJECTION (OR AN MMR OR MR) – THAT IS, A SHOT IN THE ARM AT THE AGE OF 9 MONTHS OR OLDER - TO PREVENT HIM/HER FROM GETTING MEASLES?</p>	<p>Yes..... 1 No 2 DK..... 8</p>	
<p>IM17. HAS (<i>name</i>) EVER RECEIVED THE YELLOW FEVER VACCINATION – THAT IS, A SHOT IN THE ARM AT THE AGE OF 9MONTHS OR OLDER - TO PREVENT HIM/HER FROM GETTING YELLOW FEVER?</p> <p><i>Probe by indicating that the Yellow Fever vaccine is sometimes given at the same time as the measles vaccine</i></p>	<p>Yes..... 1 No 2 DK..... 8</p>	
<p>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:</p> <p>[A] MALEZI BORA AND MEASLES IMMUNIZATION CAMPAIGNS FROM NOVEMBER 2012</p> <p>[B] MALEZI BORA AND MEASLES IMMUNIZATION CAMPAIGNS FROM MAY 2013</p> <p>[C] POLIO CAMPAIGN JULY 2013</p> <p>[D] POLIO CAMPAIGN AUGUST 2013</p>	<p style="text-align: right;">Y N DK</p> <p>Malezi bora, November 2012 1 2 8</p> <p>Malezi bora, May 2013 1 2 8</p> <p>Polio campaign, July 2013..... 1 2 8</p> <p>Polio campaign, August 2013..... 1 2 8</p>	
<p>IM20. <i>Is the vaccination card of the child kept at the health facility?</i></p> <p><input type="checkbox"/> <i>Yes</i> ⇒ Issue a QUESTIONNAIRE FORM FOR VACCINATION RECORDS AT HEALTH FACILITY for this child. Complete the Information Panel on that Questionnaire and go to Next Module.</p> <p><input type="checkbox"/> <i>No</i> ⇒ Continue with Next Module</p>		

BREASTFEEDING AND DIETARY INTAKE		BD
BD1. Check AG2: Age of child <input type="checkbox"/> Child age 0, 1 or 2 ⇒ Continue with BD2 <input type="checkbox"/> Child age 3 or 4 ⇒ Go to CARE OF ILLNESS Module		
BD2. HAS (name) EVER BEEN BREASTFED?	Yes 1 No 2 DK 8	2⇒BD4 8⇒BD4
BD3. IS (name) STILL BEING BREASTFED?	Yes 1 No 2 DK 8	
BD4. YESTERDAY, DURING THE DAY OR NIGHT, DID (name) DRINK ANYTHING FROM A BOTTLE WITH A NIPPLE?	Yes 1 No 2 DK 8	
BD5. DID (name) DRINK ORS (ORAL REHYDRATION SOLUTION) YESTERDAY, DURING THE DAY OR NIGHT?	Yes 1 No 2 DK 8	
BD6. DID (name) DRINK OR EAT VITAMIN OR MINERAL SUPPLEMENTS OR ANY MEDICINES YESTERDAY, DURING THE DAY OR NIGHT?	Yes 1 No 2 DK 8	
BD7. NOW I WOULD LIKE TO ASK YOU ABOUT (OTHER) LIQUIDS THAT (name) MAY HAVE HAD YESTERDAY DURING THE DAY OR THE NIGHT. I AM INTERESTED TO KNOW WHETHER (name) HAD THE ITEM EVEN IF COMBINED WITH OTHER FOODS. PLEASE INCLUDE LIQUIDS CONSUMED OUTSIDE OF YOUR HOME. DID (name) DRINK (Name of item) YESTERDAY DURING THE DAY OR THE NIGHT:		
[A] PLAIN WATER?	Plain water	Yes No DK 1 2 8
[B] JUICE OR JUICE DRINKS?	Juice or juice drinks	1 2 8
[C] SOUP?	Soup	1 2 8
[D] MILK SUCH AS TINNED, POWDERED, OR FRESH ANIMAL MILK?	Milk	1 2 8
If yes: HOW MANY TIMES DID (name) DRINK MILK? If 7 or more times, record '7'. If unknown, record '8'.	Number of times drank milk.....	___
[E] INFANT FORMULA?	Infant formula	1 2 8
If yes: HOW MANY TIMES DID (name) DRINK INFANT FORMULA? If 7 or more times, record '7'. If unknown, record '8'.	Number of times drank infant formula.....	___

[F] ANY OTHER LIQUIDS?	(Specify) _____	1	2	8
<p>BD8. NOW I WOULD LIKE TO ASK YOU ABOUT (OTHER) FOODS THAT (<i>name</i>) MAY HAVE HAD YESTERDAY DURING THE DAY OR THE NIGHT. AGAIN, I AM INTERESTED TO KNOW WHETHER (<i>name</i>) HAD THE ITEM EVEN IF COMBINED WITH OTHER FOODS.</p> <p>PLEASE INCLUDE FOODS CONSUMED OUTSIDE OF YOUR HOME.</p> <p>DID (<i>name</i>) EAT (<i>Name of food</i>) YESTERDAY DURING THE DAY OR THE NIGHT:</p>				
		Yes	No	DK
[A] YOGURT?	Yogurt	1	2	8
<p><i>If yes:</i> HOW MANY TIMES DID (<i>name</i>) DRINK OR EAT YOGURT? <i>If 7 or more times, record '7'. If unknown, record '8'.</i></p>		Number of times drank/ate yogurt__		
[B] ANY FORTIFIED BABY FOOD E.G. CERELAC?	Cerelac	1	2	8
[C] BREAD, RICE, NOODLES, PORRIDGE, OR OTHER FOODS MADE FROM GRAINS?	Foods made from grains	1	2	8
[D] PUMPKIN, CARROTS, SQUASH OR SWEET POTATOES THAT ARE YELLOW OR ORANGE INSIDE?	Pumpkin, carrots, squash, etc.	1	2	8
[E] WHITE POTATOES, WHITE YAMS, MANIOC, CASSAVA, OR ANY OTHER FOODS MADE FROM ROOTS?	White potatoes, white yams, manioc, cassava, etc.	1	2	8
[F] ANY DARK GREEN, LEAFY VEGETABLES?	Dark green, leafy vegetables	1	2	8
[G] RIPE MANGOES, PAPAYAS?	Ripe mangoes or papayas	1	2	8
[H] ANY OTHER FRUITS OR VEGETABLES?	Other fruits or vegetables	1	2	8
[I] LIVER, KIDNEY, HEART OR OTHER ORGAN MEATS?	Liver, kidney, heart or other organ meats	1	2	8
[J] ANY MEAT, SUCH AS BEEF, PORK, LAMB, GOAT, CHICKEN, OR DUCK?	Meat, such as beef, pork, lamb, goat, etc.	1	2	8
[K] EGGS?	Eggs	1	2	8
[L] FRESH OR DRIED FISH OR SHELLFISH?	Fresh or dried fish	1	2	8
[M] ANY FOODS MADE FROM BEANS, PEAS, LENTILS, OR NUTS?	Foods made from beans, peas, etc.	1	2	8
[N] CHEESE OR OTHER FOOD MADE FROM MILK?	Cheese or other food made from milk	1	2	8
[O] ANY OTHER SOLID, SEMI-SOLID, OR SOFT FOOD THAT I HAVE NOT MENTIONED (<i>specify</i>)?	(Specify) _____	1	2	8
<p>BD9. Check BD8 (Categories "A" through "O")</p> <p><input type="checkbox"/> At least one "Yes" or all "DK" ⇒ Go to BD11</p> <p><input type="checkbox"/> Else ⇒ Continue with BD10</p>				
<p>BD10. Probe to determine whether the child ate any solid, semi-solid or soft foods yesterday during the day or night</p> <p><input type="checkbox"/> The child did not eat or the respondent does not know ⇒ Go to Next Module</p> <p><input type="checkbox"/> The child ate at least one solid, semi-solid or soft food item mentioned by the respondent ⇒ Go back to BD8 and record food eaten yesterday [A to O]. When finished, continue with BD11</p>				
BD11. HOW MANY TIMES DID (<i>name</i>) EAT ANY SOLID, SEMI-SOLID OR SOFT FOODS YESTERDAY DURING THE DAY OR NIGHT?	Number of times.....__			

<i>If 7 or more times, record '7'.</i>	DK.....8	
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CARE OF ILLNESS		CA
<p>CA1. IN THE LAST TWO WEEKS, HAS (<i>name</i>) HAD DIARRHOEA?</p>	<p>Yes 1 No 2 DK..... 8</p>	<p>2⇒CA6A 8⇒CA6A</p>
<p>CA2. I WOULD LIKE TO KNOW HOW MUCH (<i>name</i>) WAS GIVEN TO DRINK DURING THE DIARRHOEA (INCLUDING BREAST MILK). DURING THE TIME (<i>name</i>) HAD DIARRHOEA, WAS HE/SHE GIVEN LESS THAN USUAL TO DRINK, ABOUT THE SAME AMOUNT, OR MORE THAN USUAL? <i>If 'less', probe:</i> WAS HE/SHE GIVEN MUCH LESS THAN USUAL TO DRINK, OR SOMEWHAT LESS?</p>	<p>Much less 1 Somewhat less 2 About the same 3 More 4 Nothing to drink 5 DK..... 8</p>	
<p>CA3. DURING THE TIME (<i>name</i>) HAD DIARRHOEA, WAS HE/SHE GIVEN LESS THAN USUAL TO EAT, ABOUT THE SAME AMOUNT, MORE THAN USUAL, OR NOTHING TO EAT? <i>If 'less', probe:</i> WAS HE/SHE GIVEN MUCH LESS THAN USUAL TO EAT OR SOMEWHAT LESS?</p>	<p>Much less 1 Somewhat less 2 About the same 3 More 4 Stopped food 5 Never gave food 6 DK..... 8</p>	
<p>CA3A. DID YOU SEEK ANY ADVICE OR TREATMENT FOR THE DIARRHOEA FROM ANY SOURCE?</p>	<p>Yes 1 No 2 DK..... 8</p>	<p>2⇒CA4 8⇒CA4</p>
<p>CA3B. FROM WHERE DID YOU SEEK ADVICE OR TREATMENT? <i>Probe:</i> ANYWHERE ELSE? <i>Circle all providers mentioned, but do NOT prompt with any suggestions.</i> <i>Probe to identify each type of source.</i> <i>If unable to determine if public or private sector, write the name of the place.</i> _____ (<i>Name of place</i>)</p>	<p>Public sector Government hospital A Government health centre B Government dispensary C Community health worker D Mobile / Outreach clinic E Other public (<i>specify</i>) H</p> <p>Private medical sector Private hospital / clinic I Private physician J Private pharmacy K Mobile clinic L Mission hospital /clinic M</p> <p>Other private medical (<i>specify</i>) O</p> <p>Other source Relative / Friend P Shop Q Traditional practitioner R</p>	

	Other (<i>specify</i>) _____ X	
CA4. DURING THE TIME (<i>name</i>) HAD DIARRHOEA, WAS (<i>name</i>) GIVEN TO DRINK :		Y N DK
[A] A FLUID MADE FROM A SPECIAL PACKET CALLED ORS?	Fluid from ORS packet.....	1 2 8
[B] A PRE-PACKAGED ORS FLUID FOR DIARRHOEA?	Pre-packaged ORS fluid	1 2 8
CA4A. Check CA4: ORS		
<input type="checkbox"/> Child was given ORS ('Yes' circled in 'A' or 'B' in CA4) ⇒ Continue with CA4B <input type="checkbox"/> Child was not given ORS ⇒ Go to CA4C		

<p>CA4B. WHERE DID YOU GET THE ORS?</p> <p><i>Probe to identify the type of source.</i></p> <p><i>If unable to determine whether public or private, write the name of the place.</i></p> <p>_____</p> <p style="text-align: center;"><i>(Name of place)</i></p>	<p>Public sector</p> <p>Government hospital 11</p> <p>Government health centre..... 12</p> <p>Government dispensary 13</p> <p>Community health worker..... 14</p> <p>Mobile / Outreach clinic 15</p> <p>Other public (<i>specify</i>) _____ 16</p> <p>Private medical sector</p> <p>Private hospital / clinic.....21</p> <p>Private physician22</p> <p>Private pharmacy23</p> <p>Mobile clinic24</p> <p>Mission hospital /clinic.....25</p> <p>Other private medical (<i>specify</i>)_____26</p> <p>Other source</p> <p>Relative / Friend31</p> <p>Shop32</p> <p>Traditional practitioner33</p> <p>Already had at home40</p> <p>Other (<i>specify</i>) _____96</p>	
<p>CA4C. DURING THE TIME (name) HAD DIARRHOEA, WAS (name) GIVEN:</p> <p>[A] ZINC TABLETS?</p> <p>[B] ZINC SYRUP?</p>	<p style="text-align: right;">Y N DK</p> <p>Zinc tablets 1 2 8</p> <p>Zinc syrup 1 2 8</p>	
<p>CA4D. Check CA4C: Any zinc?</p> <p><input type="checkbox"/> Child given any zinc ('Yes' circled in 'A' or 'B' in CA4C) ⇒ Continue with CA4E</p> <p><input type="checkbox"/> Child was not given any zinc' ⇒ Go to CA4F</p>		
<p>CA4E. WHERE DID YOU GET THE ZINC?</p> <p><i>Probe to identify the type of source.</i></p> <p><i>If unable to determine whether public or private, write the name of the place.</i></p> <p>_____</p> <p style="text-align: center;"><i>(Name of place)</i></p>	<p>Public sector</p> <p>Government hospital 11</p> <p>Government health centre..... 12</p> <p>Government dispensary 13</p> <p>Community health worker..... 14</p> <p>Mobile / Outreach clinic 15</p> <p>Other public (<i>specify</i>) _____ 16</p> <p>Private medical sector</p> <p>Private hospital / clinic.....21</p> <p>Private physician22</p> <p>Private pharmacy23</p> <p>Mobile clinic24</p> <p>Mission hospital /clinic.....25</p> <p>Other private medical (<i>specify</i>)_____26</p> <p>Other source</p> <p>Relative / Friend31</p> <p>Shop32</p> <p>Traditional practitioner33</p> <p>Already had at home40</p>	

	Other (<i>specify</i>) _____	96
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<p>CA4F. DURING THE TIME (<i>name</i>) HAD DIARRHOEA, WAS (<i>name</i>) GIVEN TO DRINK ANY OF THE FOLLOWING:</p> <p><i>Read each item aloud and record response before proceeding to the next item.</i></p> <p>[A] CEREAL GRUEL (Uji)?</p> <p>[B] FRESH OR FERMENTED MILK?</p> <p>[C] FRESH FRUIT JUICES?</p> <p>[D] SOUPS PREPARED FROM MEAT, FISH AND CHICKEN?</p> <p>[E] CLEAN, SAFE WATER?</p> <p>[F] BREAST FEEDING?</p>	<p style="text-align: right;">Y N DK</p> <p>Cereal gruel (uji) 1 2 8</p> <p>Fresh or fermented milk 1 2 8</p> <p>Fresh fruit juices 1 2 8</p> <p>Soups 1 2 8</p> <p>Clean, Safe water 1 2 8</p> <p>Breast feeding 1 2 8</p>	
<p>CA5. WAS ANYTHING (ELSE) GIVEN TO TREAT THE DIARRHOEA?</p>	<p>Yes 1</p> <p>No 2</p> <p>DK 8</p>	<p>2⇒CA6A</p> <p>8⇒CA6A</p>
<p>CA6. WHAT (ELSE) WAS GIVEN TO TREAT THE DIARRHOEA?</p> <p><i>Probe:</i> ANYTHING ELSE?</p> <p><i>Record all treatments given. Write brand name(s) of all medicines mentioned.</i></p> <p>_____</p> <p style="text-align: center;"><i>(Name)</i></p>	<p>Pill or Syrup</p> <p>Antibiotic A</p> <p>Antimotility B</p> <p>Other pill or syrup (Not antibiotic, antimotility or zinc) G</p> <p>Unknown pill or syrup H</p> <p>Injection</p> <p>Antibiotic L</p> <p>Non-antibiotic M</p> <p>Unknown injection N</p> <p>Intravenous O</p> <p>Home remedy/Herbal medicine Q</p> <p>Other (<i>specify</i>) _____ X</p>	
<p>CA6A. IN THE LAST TWO WEEKS, HAS (<i>name</i>) BEEN ILL WITH A FEVER AT ANY TIME?</p>	<p>Yes 1</p> <p>No 2</p> <p>DK 8</p>	<p>2⇒CA7</p> <p>8⇒CA7</p>
<p>CA6B. AT ANY TIME DURING THE ILLNESS, DID (<i>name</i>) HAVE BLOOD TAKEN FROM HIS/HER FINGER OR HEEL FOR TESTING?</p>	<p>Yes 1</p> <p>No 2</p> <p>DK 8</p>	
<p>CA7. AT ANY TIME IN THE LAST TWO WEEKS, HAS (<i>name</i>) HAD AN ILLNESS WITH A COUGH?</p>	<p>Yes 1</p> <p>No 2</p> <p>DK 8</p>	<p>2⇒CA9A</p> <p>8⇒CA9A</p>

<p>CA8. WHEN (<i>name</i>) HAD AN ILLNESS WITH A COUGH, DID HE/SHE BREATHE FASTER THAN USUAL WITH SHORT, RAPID BREATHS OR HAVE DIFFICULTY BREATHING?</p>	Yes 1 No 2 DK..... 8	2⇒CA10 8⇒CA10
<p>CA9. WAS THE FAST OR DIFFICULT BREATHING DUE TO A PROBLEM IN THE CHEST OR A BLOCKED OR RUNNY NOSE?</p>	Problem in chest only 1 Blocked or runny nose only 2 Both 3 Other (<i>specify</i>) 6 DK..... 8	1⇒CA10 2⇒CA10 3⇒CA10 6⇒CA10 8⇒CA10
<p>CA9A. Check CA6A: Had fever?</p> <p><input type="checkbox"/> Child had fever ⇒ Continue with CA10</p> <p><input type="checkbox"/> Child did not have fever ⇒ Go to CA14</p>		
<p>CA10. DID YOU SEEK ANY ADVICE OR TREATMENT FOR THE ILLNESS FROM ANY SOURCE?</p>	Yes 1 No 2 DK..... 8	2⇒CA12 8⇒CA12
<p>CA11. FROM WHERE DID YOU SEEK ADVICE OR TREATMENT?</p> <p><i>Probe:</i> ANYWHERE ELSE?</p> <p><i>Circle all providers mentioned, but do NOT prompt with any suggestions.</i></p> <p><i>Probe to identify each type of source.</i></p> <p><i>If unable to determine if public or private sector, write the name of the place.</i></p> <p>_____</p> <p style="text-align: center;"><i>(Name of place)</i></p>	Public sector Government hospital A Government health centre B Government dispensary C Community health worker D Mobile / Outreach clinic E Other public (<i>specify</i>) F Private medical sector Private hospital / clinic G Private physician H Private pharmacy I Mobile clinic J Mission hospital /clinic K Other source Relative / Friend L Shop M Traditional practitioner N Other (<i>specify</i>) X	
<p>CA12. AT ANY TIME DURING THE ILLNESS, WAS (<i>name</i>) GIVEN ANY MEDICINE FOR THE ILLNESS?</p>	Yes 1 No 2 DK..... 8	2⇒CA14 8⇒CA14
<p>CA13. WHAT MEDICINE WAS (<i>name</i>) GIVEN?</p> <p><i>Probe:</i> ANY OTHER MEDICINE?</p> <p><i>Circle all medicines given. Write brand name(s) of all medicines mentioned.</i></p>	Anti-malarials: SP / Fansidar A Chloroquine B Amodiaquine C Quinine D Combination with Artemisinin E Other anti-malarial (<i>specify</i>) H	

<p>_____</p> <p><i>(Names of medicines)</i></p>	<p>Antibiotics:</p> <p>Pill / Syrup I</p> <p>Injection J</p> <p>Other medications:</p> <p>Paracetamol/ Panadol /Acetaminophen . P</p> <p>Aspirin..... Q</p> <p>Ibuprofen R</p> <p>Other (<i>specify</i>) _____ X</p> <p>DK.....Z</p>
<p>CA13A. Check CA13: Antibiotic mentioned (codes I or J)?</p> <p><input type="checkbox"/> Yes ⇒ Continue with CA13B</p> <p><input type="checkbox"/> No ⇒ Go to CA13C</p>	
<p>CA13B. WHERE DID YOU GET THE ANTIBIOTICS?</p> <p><i>Probe to identify the type of source.</i></p> <p><i>If unable to determine whether public or private, write the name of the place.</i></p> <p>_____</p> <p><i>(Name of place)</i></p>	<p>Public sector</p> <p>Government hospital 11</p> <p>Government health centre..... 12</p> <p>Government dispensary 13</p> <p>Community health worker..... 14</p> <p>Mobile / Outreach clinic 15</p> <p>Other public (<i>specify</i>) _____ 16</p> <p>Private medical sector</p> <p>Private hospital / clinic.....21</p> <p>Private physician22</p> <p>Private pharmacy23</p> <p>Mobile clinic24</p> <p>Mission hospital /clinic.....25</p> <p>Other private medical (<i>specify</i>)_____ 26</p> <p>Other source</p> <p>Relative / Friend31</p> <p>Shop32</p> <p>Traditional practitioner33</p> <p>Already had at home40</p> <p>Other (<i>specify</i>) _____ 96</p>
<p>CA13C. Check CA13: Anti-malarial mentioned (codes A - H)?</p> <p><input type="checkbox"/> Yes ⇒ Continue with CA13D</p> <p><input type="checkbox"/> No ⇒ Go to CA14</p>	
<p>CA13D. WHERE DID YOU GET THIS ANTI-MALARIAL?</p> <p><i>Probe to identify the type of source.</i></p> <p><i>If unable to determine whether public or private, write the name of the place.</i></p>	<p>Public sector</p> <p>Government hospital11</p> <p>Government health centre..... 12</p> <p>Government dispensary 13</p> <p>Community health worker..... 14</p> <p>Mobile / Outreach clinic 15</p> <p>Other public (<i>specify</i>) _____ 16</p> <p>Private medical sector</p> <p>Private hospital / clinic.....21</p> <p>Private physician22</p>

_____ <i>(Name of place)</i>	Private pharmacy 23 Mobile clinic 24 Mission hospital /clinic..... 25 Other private medical (<i>specify</i>) _____ 26 Other source Relative / Friend 31 Shop 32 Traditional practitioner 33 Already had at home 40 Other (<i>specify</i>) _____ 96	
CA13E. HOW LONG AFTER THE FEVER STARTED DID (name) FIRST TAKE (name of anti-malarial from CA13)? <i>If multiple anti-malarials mentioned in CA13, name all anti-malarial medicines mentioned.</i>	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	
CA14. Check AG2: Age of child <input type="checkbox"/> <i>Child age 0, 1 or 2 ⇒ Continue with CA15</i> <input type="checkbox"/> <i>Child age 3 or 4 ⇒ Go to UF13</i>		
CA15. 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 (<i>specify</i>) _____ 96 DK..... 98	

UF13. Record the time.	Hour and minutes : ..	
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<p>UF14. Check List of Household Members, columns HL7B and HL15. <i>Is the respondent the mother or caretaker of another child age 0-4 living in this household?</i></p> <p><input type="checkbox"/> <i>Yes ⇒ Indicate to the respondent that you will need to measure the weight and height of the child later. Go to the next QUESTIONNAIRE FOR CHILDREN UNDER FIVE to be administered to the same respondent</i></p> <p><input type="checkbox"/> <i>No ⇒ End the interview with this respondent by thanking her/him for her/his cooperation and tell her/him that you will need to measure the weight and height of the child before you leave the household</i></p> <p style="text-align: center;"><i>Check to see if there are other woman's, man's or under-5 questionnaires to be administered in this household.</i></p>
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ANTHROPOMETRY		AN
<p><i>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 in the List of Household Members before recording measurements.</i></p>		
AN1. <i>Measurer's name and number:</i>	Name _____	
AN2. <i>Result of height/length and weight measurement</i>	Either or both measured 1	
	Child not present 2	2⇒AN6
	Child or mother/caretaker refused 3	3⇒AN6
	Other (<i>specify</i>) _____ 6	6⇒AN6
AN3. <i>Child's weight</i>	Kilograms (kg)	
	Weight not measured 99.9	
<p>AN3A. <i>Was the child undressed to the minimum?</i></p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No, the child could not be undressed to the minimum</p>		
<p>AN3B. <i>Check age of child in AG2:</i></p> <p><input type="checkbox"/> Child under 2 years old. ⇒ Measure length (lying down).</p> <p><input type="checkbox"/> Child age 2 or more years. ⇒ Measure height (standing up).</p>		
AN4. <i>Child's length or height</i>	Length / Height (cm)..... .	
	Length/ Height not measured..... 999.9	⇒AN6
AN4A. <i>How was the child actually measured? Lying down or standing up?</i>	Lying down 1	
	Standing up 2	

<p>AN6. <i>Is there another child in the household who is eligible for measurement?</i></p> <p><input type="checkbox"/> Yes ⇒ Record measurements for next child.</p> <p><input type="checkbox"/> No ⇒ Check if there are any other individual questionnaires to be completed in the household.</p>
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Interviewer's Observations

Field Editor's Observations

Supervisor's Observations

Measurer's Observations

