Kenya
Eastern Province
Isiolo District



Monitoring the situation of children and women

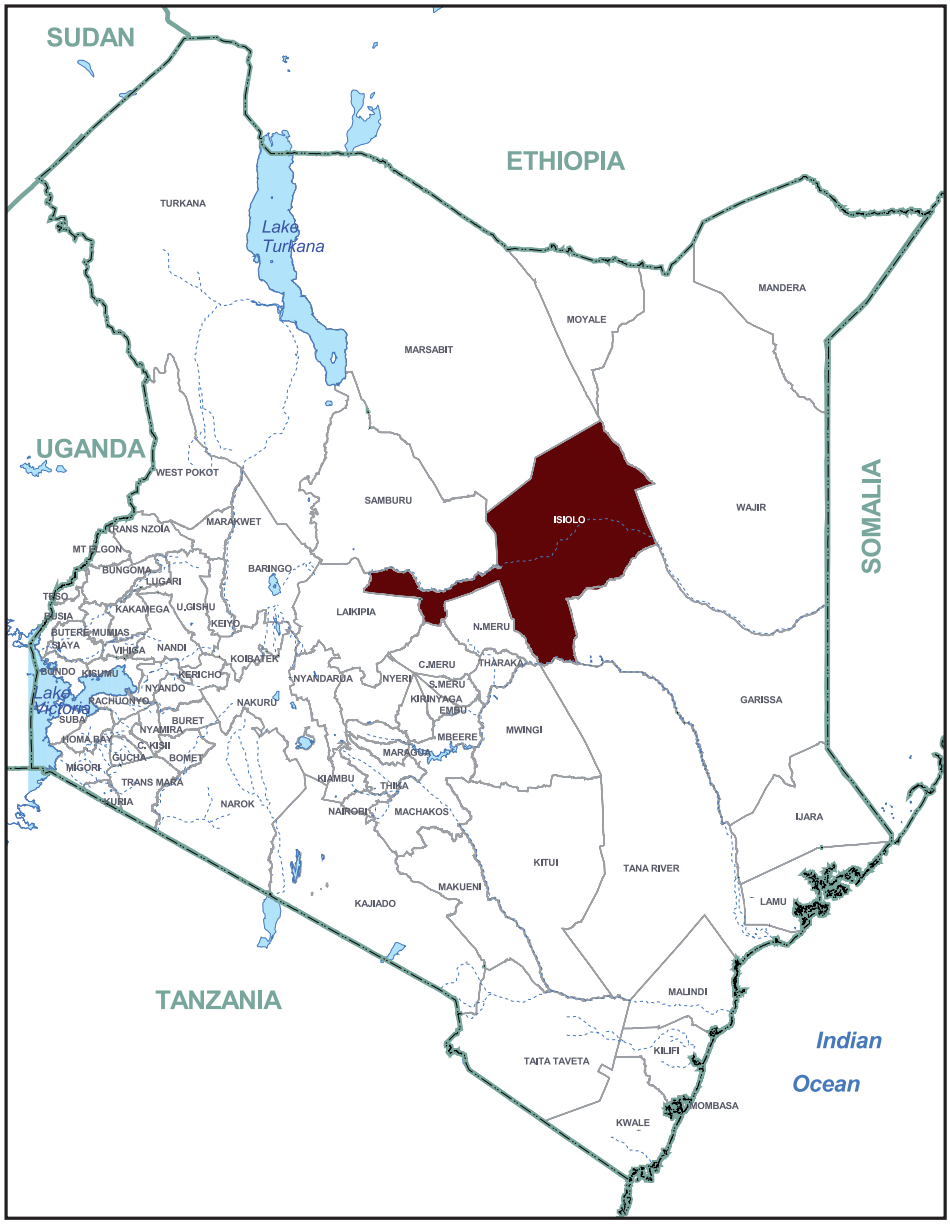
Multiple Indicator Cluster Survey 2008

Kenya National
Bureau of Statistics

United Nations
Children's Fund

MICS

Kenya
Eastern Province
Isiolo District



Monitoring the situation of children and women

Multiple Indicator Cluster Survey 2008

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Kenya National Bureau of Statistics (KNBS) carried out the Isiolo district Multiple Indicator Cluster Survey (MICS) with financial and technical support from the United Nations Children's Fund (UNICEF). The survey was conducted as part of the third round of MICS surveys (MICS3). Similar surveys were carried out around the world in more than 50 countries, in 2005-2006. The first two rounds of MICS survey were conducted in 1995 and the year 2000 respectively.

Survey tools were based on the models and standards developed by the Global MICS Project, designed to collect information on the situation of children and women in countries around the world. Additional information on the global MICS project may be obtained from http://www.childinfo.org.

Recommended citation:
Kenya National Bureau of Statistics. 2009. Isiolo district Multiple Indicator Cluster Survey 2008, Nairobi, Kenya: Kenya National Bureau of Statistics.

Table of Contents

LIST OF TABLES ..... **V**
LIST OF FIGURES ..... **VII**
LIST OF ABBREVIATIONS ..... **VIII**
FOREWORD ..... **IX**
EXECUTIVE SUMMARY ..... **X**
SUMMARY TABLE OF FINDINGS ..... **XII**
INTRODUCTION **1**
1.1 Background 1
1.2 Survey Objectives 2
SAMPLE AND SURVEY METHODOLOGY **3**
2.1 Sample Design 3
2.2 Questionnaires 3
2.3 Training and Fieldwork 4
2.4 Data Processing 4
SAMPLE COVERAGE AND HOUSEHOLDS CHARACTERISTICS **5**
3.1 Sample Coverage 5
3.2 Characteristics of the Household Population 5
3.3 Characteristics of Female Respondents 8
3.4 Characteristics of Children Under Five 9
CHILD MORTALITY **11**
4.1 Levels of Childhood Mortality 11
NUTRITION **12**
5.1 Nutritional Status 12
5.2 Breastfeeding 15
5.3 Salt Iodization 20
5.4 Vitamin A Supplements 21
5.5 Low Birth Weight 24
5.6 Food Relief 26
CHILD HEALTH **27**
6.1 Immunization 27
6.2 Tetanus Toxoid 29
6.3 Oral Rehydration Treatment 31
6.4 Care Seeking and Antibiotic Treatment of Pneumonia 33
6.5 Solid Fuel Use 38
6.6 Malaria 39
ENVIRONMENT **44**
7.1 Water 44
7.2 Sanitation 50
REPRODUCTIVE HEALTH **54**
8.1 Fertility 54
8.2 Teenage Pregnancy and Motherhood 55
8.3 Contraception 56
8.4 Unmet Need 58
8.5 Antenatal Care 59
8.6 Assistance at Delivery 63

CHILD DEVELOPMENT **65**
9.1 Child Learning 65
EDUCATION **67**
10.1 Pre-School Attendance and School Readiness 67
10.2 Primary and Secondary School Participation 68
10.3 Adult Literacy 73
CHILD PROTECTION **75**
11.1 Birth Registration 75
11.2 Child Labour 77
11.3 Child Discipline 79
11.4 Early Marriage 81
11.5 Female Genital Mutilation/Cutting 83
11.6 Domestic Violence 86
HIV/AIDS, ORPHANED AND VULNERABLE CHILDREN **88**
12.1 Knowledge of HIV Transmission and Condom Use 88
12.2 Orphans and Vulnerable Children 96
LIST OF REFERENCES **102**
APPENDIX A: SAMPLE DESIGN **103**
APPENDIX B: LIST OF PERSONNEL INVOLVED IN THE SURVEY **106**
APPENDIX C: ESTIMATES OF SAMPLING ERRORS **107**
APPENDIX D: DATA QUALITY TABLES **110**
APPENDIX E: MICS INDICATORS - NUMERATORS AND DENOMINATORS **111**
APPENDIX F: QUESTIONNAIRES **118**

List of Tables

Table 3.1 (HH.1): Results of household and individual interviews 5
Table 3.2 (HH.2): Household age distribution by sex 6
Table 3.3 (HH.3): Household composition 8
Table 3.4 (HH.4): Women's background characteristics 9
Table 3.5 (HH.5): Children's background characteristics 10
Table 4.1: Child mortality 11
Table 5.1 (NU.1): Child malnourishment 14
Table 5.2 (NU.2): Initial breastfeeding 16
Table 5.3a (NU.3): Breastfeeding 17
Table 5.3b (NU.3): Complementary feeding 18
Table 5.4 (NU.4): Adequate fed infants 20
Table 5.5 (NU.5): Iodized salt consumption 21
Table 5.6 (NU.6): Children's vitamin A supplementation 23
Table 5.7 (NU.7): Post-partum mothers' vitamin A supplementation 24
Table 5.8 (NU.8): Low birth weight infants 25
Table 5.9 (NU11): Food relief 26
Table 6.1 (CH.1): Vaccinations among children 28
Table 6.2 (CH.2): Vaccinations by background characteristics 29
Table 6.3 (CH.3): Neonatal tetanus protection 30
Table 6.4 (CH.4): Oral rehydration treatment 32
Table 6.5 (CH.5): Home management of diarrhea 33
Table 6.6 (CH.6): Care seeking for suspected pneumonia 35
Table 6.7 (CH.7): Antibiotic treatment of pneumonia 36
Table 6.8 (CH.7A): Knowledge of the two danger signs of pneumonia 37
Table 6.9 (CH.8): Solid fuel use 38
Table 6.10 (CH.10): Availability of insecticide treated nets 39
Table 6.11 (CH.11): Children sleeping under bed nets 41
Table 6.12 (CH.12): Treatment of children with anti-malarial drugs 42
Table 6.13 (CH.13): Intermittent preventive treatment for malaria 43
Table 7.1 (EN.1): Use of improved water sources 46
Table 7.2 (EN.2): Household water treatment 48
Table 7.3 (EN.3): Time to source of water 49
Table 7.4 (EN.4): Person collecting water 50
Table 7.5 (EN.5): Use of sanitary means of excreta disposal 51
Table 7.6 (EN.6): Disposal of child's feaces 52
Table 7.7 (EN.7): Use of improved water sources and improved sanitation 53
Table 8.1: Current fertility 54
Table 8.2: Children ever born and living 55
Table 8.3: Teenage pregnancy and motherhood 56
Table 8.4 (RH.1): Use of contraception 57
Table 8.5 (RH.2): Unmet need for contraception 59
Table 8.6 (RH.3): Antenatal care provider 61

Table 8.7 (RH.4): Antenatal care 62
Table 8.8 (RH.5): Assistance during delivery....64
Table 9.1 (CD.1): Family support for learning 66
Table 10.1 (ED.1): Early childhood education....68
Table 10.2 (ED.2): Primary school entry 69
Table 10.3 (ED.3): Primary school net attendance ratio 70
Table 10.4 (ED.4): Secondary school net attendance ratio 71
Table 10.5 (ED.4w): Secondary school age children attending primary school 72
Table 10.6 (ED.7): Education gender parity 73
Table 10.7 (ED.8): Adult literacy 74
Table 11.1 (CP.1): Birth registration 76
Table 11.2 (CP.2): Child labour 78
Table 11.3 (CP.3): Labourer students and student labourers 79
Table 11.4 (CP.4): Child discipline 80
Table 11.5 (CP.5): Early marriage 82
Table 11.6 (CP.6): Spousal age difference....83
Table 11.7 (CP.7): Female genital mutilation/cutting (FGM/C)....84
Table 11.8 (CP.7): Attitude towards Female genital mutilation/cutting (FGM/C) 85
Table 11.9 (CP.8): Female genital mutilation/cutting (FGM/C) among daughters....86
Table 11.10 (CP.9): Attitudes toward domestic violence 87
Table 12.1 (HA.1): Knowledge of preventing HIV transmission....89
Table 12.2 (HA.2): Identifying misconceptions about HIV/AIDS....90
Table 12.3 (HA.3): Comprehensive knowledge of HIV/AIDS transmission....91
Table 12.4 (HA.4): Knowledge of mother-to-child HIV transmission....92
Table 12.5 (HA.5): Attitudes toward people living with HIV/AIDS 93
Table 12.6 (HA.6): Knowledge of a facility for HIV testing 94
Table 12.7 (HA.7): HIV testing and counseling coverage during antenatal care 95
Table 12.8 (HA.10): Children's living arrangements and orphanhood 97
Table 12.9 (HA.11): Prevalence of orphanhood and vulnerability among children 98
Table 12.10 (HA.12): School attendance of orphaned and vulnerable children....100
Table 12.11 (HA.13): Support for children orphaned and vulnerable due to AIDS 101

List of Figures

Figure 3.1: Age and Sex Distribution of Household Population 7
Figure 5.1: Percentage of children age 6-59 months who are undernourished.....15
Figure 5.2: Percentage distribution of children aged under 3 years by feeding pattern.....19
Figure 5.3: Percentage of infants Weighing Less Than 2,500 Grams at Birth 26
Figure 6.1: Percentage of children aged 12-23 months who received the recommended.....28
Figure 6.2: Percentage of households with at least one treated mosquito net 40
Figure 7.1: Percentage distribution of household members by source of drinking water 45
Figure 12.1: Percent of women who have comprehensive knowledge of HIV/AIDS transmission.....91

List of Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ASFRs	Age Specific Fertility Rates
BCG	Bacillus Calmette Guérin (Tuberculosis)
CSPro	Census and Survey Processing System
CDC	Center for Disease Control
NCHS	National Centre for Health Statistics
DHS	Demographic Health Survey
DPT	Diphtheria Pertussis Tetanus
DSO	District Statistical Officer
EA	Enumeration Areas
EPI	Expanded Programme on Immunization
ERS	Economic Recovery Strategy
FGM/C	Female Genital Mutilation/Cutting
GOK	Government of Kenya
GPI	Gender Parity Index
HIV	Human Immunodeficiency Virus
IDD	Iodine Deficiency Disorders
IPT	Intermittent Preventive Treatment
ITN	Insecticide Treated Net
IUD	Intrauterine Device
KDHS	Kenya Demographic Health Survey
KEPI	Kenya Expanded Programme on Immunizations
KESSP	Kenya Education Sector Support Programme
KNBS	Kenya National Bureau of Statistics
LAM	Lactational Amenorrhea Method
LPG	Liquefied Petroleum Gas
MDG	Millennium Development Goals
MICS	Multiple Indicator Cluster Survey
MoH	Ministry of Health
NAR	Net Attendance Rate
NPA	National Programme of Action
ORS	Oral Re-hydration Therapy
ORT	Oral Rehydration Treatment
ppm	Parts Per Million
PRS	Poverty Reduction Strategy
RHF	Recommended Home Fluid
SPSS	Statistical Package for Social Sciences
STIs	Sexually Transmitted Infections
TFR	Total Fertility Rates
TT	Tetanus Toxoid
U5MR	Under-5 Mortality 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
WASH	Water, Sanitation and Hygiene
WFFC	World Fit For Children
WHO	World Health Organization
WSC	World Summit for Children

Foreword

The 2008 Isiolo district Multiple Indicator Cluster Survey (MICS) is one of the largest district representative sample surveys conducted in the district. The survey covered 1,158 households selected using appropriate statistical procedures.

The objective of the district level MICS is to provide estimates relating to the well being of children and women at the district level, in order to enable policymakers, planners, researchers and program managers to take actions based on credible evidence pointed out by the survey. For the 2008 MICS, information on specific areas such as, reproductive health, child mortality, child health, nutrition, child protection, water and sanitation, education, and HIV/AIDS and orphans were collected.

The results indicate that the infant and child mortality in Isiolo district are moderately high, in addition to the district having a high proportion of children who are under-weight. Similarly, the proportion of children aged 0-5 months who are exclusively breastfed is quite low in the district.

I wish to acknowledge the efforts of various organizations and individuals who contributed immensely towards the success of the survey. First, I would like to acknowledge the technical and financial assistance from the United Nations Children's Fund (UNICEF). The staff of UNICEF Kenya country office provided valuable professional support and guidance to the project which is highly appreciated. The hard work and commitment of the staff of the Kenya National Bureau of Statistics (KNBS) in executing the tasks of this survey are greatly acknowledged. Their dedication enabled us to successfully complete the survey and avail the results. I recognize the good work of the interviewers and supervisors who braved difficult terrain and field conditions to collect data for this survey. I also appreciate the meticulous care and attention to detail with which data processing was carried out by staff tasked to accomplish these important tasks. I wish to thank KNBS and UNICEF staff for their valuable efforts in editing this final report.

Finally, I am grateful to the respondents who generously gave their time to provide the information and for allowing the survey teams to measure the weights and heights of children below 5 years of age. The information they provided and data generated by the survey form the basis of this report.



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Executive Summary

The Isiolo district Multiple Indicator Cluster Survey (MICS) is a representative sample survey drawn using the 1999 Census of Kenya Enumeration Areas (EAs) as the sampling frame. The 50 EAs were sampled using the probability proportional to size (PPS) sampling methodology, and information from a total of 1,101 households were collected using structured questionnaires. The Isiolo MICS is the largest household sample survey ever conducted in the district.

The survey used a two-stage design and at the EA level, households were stratified into two, the first strata containing households with a child below three years and the other with no children below three years at the time of conducting the household listing.[1] The stratification at EA level was done to reduce the standard errors of children and women based estimates. The data was collected by two teams comprising of five members each, one supervisor, one editor/measurer and three investigators.

The survey was implemented by the Kenya National Bureau of Statistics (KNBS), with the support from UNICEF Kenya. The summary of findings from the survey is presented below.

Child Mortality

The under-five mortality rate and the infant mortality rate were calculated using the birth history data for the 10 year period preceding the survey. The under-five mortality rate is 56 per 1,000 live births and infant mortality rate is 43 per 1,000 live births.

Nutritional Status and Breastfeeding

Slightly more than one in four (22 per cent) children aged 6-59 months in Isiolo is moderately underweight. The percentage of stunted children was 15, and 12 per cent were wasted. Nearly 53 per cent of the children experience timely breastfeeding. However only 19 per cent of children aged 0-5 months are exclusively breastfed.

Immunization

Only 40 per cent of children aged 12-23 months received full vaccination (BCG, 3 doses of Polio, 3 doses of DPT+HepB+Hib and measles) before reaching age 12 months.

BCG is reportedly given to 84 per cent of children aged 12-23 months and the measles vaccine is received by slightly more than half of the children (55 per cent), which is an indication of a very low coverage rate.

Among all mothers in the district who gave birth during the two years preceding the survey, 62 per cent reported that they received a tetanus toxoid (TT) injection.

Care of illness

About half (50 per cent) of children with diarrhoea during the two weeks preceding the survey received oral re-hydration therapy (ORT) and 12 per cent reported home management of diarrhoea. Sixty six per cent of the children who had suspected pneumonia reportedly sought treatment, with 53 per cent being given antibiotic treatment. Only 15 per cent of mothers/caretakers in the district recognize the two danger signs of pneumonia.

Malaria prevention

In Isiolo, 53 per cent of the households have at least one insecticide treated mosquito net (ITN), and 49 per cent of all children below five years sleep under a treated net.

About half (52 per cent) of children under five reporting fever during two weeks preceding the survey were given an anti-malarial treatment. Eighteen per cent of women who gave birth during the two years preceding the survey received the recommended intermittent preventive treatment for malaria.

[1] The household listing was carried out by three teams, each team comprised of a lister and mapper.

Water and Sanitation

About three out of five (59 per cent) households in Isiolo are using drinking water from an improved source, and only 12 per cent are reportedly treating the drinking water.

Two out of five (41 per cent) households are using an improved sanitation facility, and in 42 per cent of cases child stool is disposed off safely.

Reproductive Health

The total fertility rate in Isiolo for the three-year period preceding the survey is 4.7 children per woman. Teenage pregnancy is still high in the district and nearly a quarter of women aged 15-19 have begun childbearing.

Eighty-three per cent of mothers who gave birth in the past two years had an antenatal check-up. However, only one third (31 per cent) have given birth to their babies in an institution.

About 47 per cent of women aged 20-49 years who got married before reaching 18 years of age, and 36 per cent of women aged 15-19 years are currently married or in union.

Education

In Isiolo, only 22 per cent of the primary school entry age children are attending primary school, with twice the rate of females (29 per cent) as males (15 per cent) attending standard one.

Primary school net attendance rate was 66 while secondary school net attendance ratio was only 11 per cent.

The proportion of women aged 15-24 years that are literate in Isiolo is less than half (47 per cent).

Child protection

Only one out of five (19 per cent) children under-five in Isiolo has their birth registered.

Children aged 5-14 years in Isiolo who engage in child labour are about nine per cent. In the district, a high percentage (72 per cent) of children received some form of psychological or physical punishment during the one month prior to the survey.

HIV and AIDS

Only 29 per cent of young women aged 15-24 years in Isiolo have comprehensive knowledge about HIV prevention, while 37 per cent of women in the district have knowledge about mother-to-child transmission of HIV.

Forty nine per cent of the women aged 15-49 years reported that they had been tested for HIV.

Slightly more than half (56 per cent) of women who delivered a child in the last 2 years received counselling on prevention of mother-to-child transmission of HIV and 56 per cent had the HIV test.

Orphans and vulnerable children

Fourteen per cent of children under 18 years in Isiolo are orphans and one in 11 (nine per cent) of them is vulnerable. Eleven per cent of the children under 18 years are not living with any biological parent.

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

Almost all women (98 per cent) aged 15-49 years in Isiolo have heard about FGM/C, and 71 per cent reported to have had some form of FGM/C. Of those who had FGM/C, eleven per cent had an extreme form of FGM/C. Close to half (48 per cent) of women who have heard of FGMC believe that the practice should be continued.

Three out of four (75 per cent) women in Isiolo believe that a husband may beat their wife for various reasons such as: going out without telling him; neglecting children; arguing with him; refusing sex with him; or burning the food.

Summary Table of Findings

Multiple Indicator Cluster Surveys (MICS) and Millennium Development Goals (MDG) Indicators, Isiolo, Eastern Province, Kenya, 2008

Topic	MICS Indicator Number	MDG Indicator Number	Indicator	Value & Unit	
CHILD MORTALITY					
Child mortality	1	13	Under-five mortality rate	56	per thousand
	2	14	Infant mortality rate	43	per thousand
NUTRITION					
Nutritional status			Underweight prevalence (below -2 SD)	22.1	per cent
			Stunting prevalence (below -2 SD)	15.3	per cent
			Wasting prevalence (below -2 SD)	12.2	per cent
Breastfeeding	45		Timely initiation of breastfeeding	53.3	per cent
	15		Exclusive breastfeeding rate	19.2	per cent
	16		Continued breastfeeding rate		
			at 12-15 months	81.0	per cent
			at 20-23 months	37.9	per cent
	17		Timely complementary feeding rate	44.1	per cent
	18		Frequency of complementary feeding	32.4	per cent
	19		Adequately fed infants	26.3	per cent
Salt iodization	41		Iodized salt consumption	82.5	per cent
Vitamin A	42		Vitamin A supplementation (under-fives)	23.4	per cent
	43		Vitamin A supplementation (post-partum mothers)	47.7	per cent
Low birth weight	9		Low birth weight infants	10.9	per cent
	10		Infants weighed at birth	45.6	per cent
CHILD HEALTH					
Immunization	25		Tuberculosis immunization coverage (by 12 months)	84.3	per cent
	26		Polio immunization coverage (by 12 months)	68.6	per cent
	27		DPT immunization coverage (by 12 months)	69.3	per cent
	28	15	Measles immunization coverage (by 12 months)	54.5	per cent
	31		Fully immunized children (by 12 months)	38.7	per cent
Tetanus toxoid	32		Neonatal tetanus protection	61.7	per cent
Care of illness	33		Use of oral rehydration therapy (ORT)	50.4	per cent
	34		Home management of diarrhoea	12.2	per cent
	35		Received ORT or increased fluids, and continued feeding	17.3	per cent
	23		Care seeking for suspected pneumonia	66.4	per cent
	22		Antibiotic treatment of suspected pneumonia	53.2	per cent
Solid fuel use	24	29	Solid fuels	95.2	per cent
Malaria	36		Households having insecticide-treated nets (ITNs)	53.3	per cent
	37	22	Under-fives sleeping under insecticide-treated nets	48.7	per cent
	38		Under-fives sleeping under mosquito nets	49.2	per cent
	39	22	Antimalarial treatment (under-fives)	43.1	per cent
	40		Intermittent preventive malaria treatment (pregnant women)	18.7	per cent
ENVIRONMENT					
Water and Sanitation	11	30	Use of improved drinking water sources	39.7	per cent
	13		Water treatment	11.9	per cent
	12	31	Use of improved sanitation facilities	50.7	per cent
	14		Disposal of child's faeces	42.4	per cent

Topic	MICS Indicator Number	MDG Indicator Number	Indicator	Value & Unit	
REPRODUCTIVE HEALTH					
Contraception and unmet need	21	19c	Contraceptive prevalence	18.0	per cent
	98		Unmet need for family planning	36.0	per cent
Maternal and newborn health	20		Antenatal care	79.9	per cent
	44		Content of antenatal care		
			Blood test taken	65.9	per cent
			Blood pressure measured	68.6	per cent
			Urine specimen taken	58.8	per cent
			Weight measured	76.2	per cent
	4	17	Skilled attendant at delivery	33.8	per cent
	5		Institutional deliveries	30.7	per cent
			Total fertility rate	4.7	Rate
EDUCATION					
Education	52		Pre-school attendance	40.8	per cent
	53		School readiness	85.5	per cent
	54		Net intake rate in primary education	21.9	per cent
	55	6	Net primary school attendance rate	65.7	per cent
	56		Net secondary school attendance rate	11.1	per cent
			Adult literacy rate (female)	46.6	Per cent
CHILD PROTECTION					
Birth registration	62		Birth registration	19.3	per cent
Child labour	71		Child labour	8.7	per cent
	72		Labourer students	47.1	per cent
	73		Student labourers	5.2	per cent
Child discipline	74		Any psychological/physical punishment	71.7	per cent
Early marriage and polygyny	67		Marriage before age 15	14.0	per cent
			Marriage before age 18	47.0	per cent
	68		Young women aged 15-19 currently married/in union	35.8	per cent
Female genital mutilation/ Cutting	66		Approval for FGM/C	47.6	per cent
	63		Prevalence of female genital mutilation/cutting (FGM/C)	70.7	per cent
	64		Prevalence of extreme form of FGM/C	11.3	per cent
	65		FGM/C prevalence among daughters	25.9	per cent
Domestic violence	100		Attitudes towards domestic violence	74.5	per cent
HIV/AIDS, SEXUAL BEHAVIOUR, AND ORPHANED AND VULNERABLE CHILDREN					
HIV/AIDS knowledge and attitudes	82	19b	Comprehensive knowledge about HIV prevention among young people	28.7	per cent
	89		Knowledge of mother- to-child transmission of HIV	37.1	per cent
	86		Attitude towards people with HIV/AIDS	30.4	per cent
	87		Women who know where to be tested for HIV	73.2	per cent
	88		Women who have been tested for HIV	49.0	per cent
	90		Counselling coverage for the prevention of mother-to-child transmission of HIV	55.9	per cent
	91		Testing coverage for the prevention of mother-to-child transmission of HIV	55.5	per cent
Support to orphaned and vulnerable children	75		Prevalence of orphans	14.0	per cent
	78		Children's living arrangements	11.3	per cent
	76		Prevalence of vulnerable children	8.8	per cent
	77	20	School attendance of orphans versus non-orphans	0.8	Ratio
	81		External support to children orphaned and made vulnerable by HIV/AIDS	15.0	per cent

Introduction 1

1.1 Background

This report is based on the Isiolo district Multiple Indicator Cluster Survey (MICS) conducted in 2008 by the Kenya National Bureau of Statistics (KNBS). The survey provides valuable information on the situation of children and women in Isiolo, and was based in large part, on the need to monitor progress towards goals and targets emanating from recent international agreements: the Millennium Declaration, adopted by all 191 United Nations Member States in September 2000, and the Plan of Action of A World Fit For Children (WFFC), adopted by 189 Member States at the United Nations Special Session on Children in May 2002. All the above commitments build upon promises made by the international community at the 1990 World Summit for Children.

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

A Commitment to Action: National and International Reporting Responsibilities

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

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

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

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

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

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

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

Kenya is committed to improving the welfare of its people particularly women and children who tend to be more vulnerable to social-economic hardships. With regard to children, the Government of Kenya (GOK) formulated the National Programme of Action (NPA) for children in 1992, soon after the World Summit for Children (WSC) which was held in 1990. The main objective of this programme was to identify issues affecting children and the strategies to address them.

Proper monitoring and evaluation of targeted projects and programmes by the government and development partners requires a wide range of data to track progress towards achievement of desired outcomes. In this respect, MICS data from the district will be helpful in appraising national programmes such as Poverty Reduction Strategy (PRS), Economic Recovery Strategy (ERS), and the Kenya Education Sector Support Programme (KESSP) 2005-2010, amongst others.

The GOK/UNICEF programme has a sizeable component of production of high quality and sufficiently disaggregated data for effective child-friendly policy formulation and programme implementation.

The results from the 2008 MICS conducted in Isiolo district of Eastern Province are presented in this report.

1.2 Survey Objectives

The 2008 Isiolo district Multiple Indicator Cluster Survey has its primary objectives as:

- To provide up-to-date information for assessing the situation of children and women in Isiolo district of Eastern Province;
- To furnish data needed for monitoring progress toward goals established in the Millennium Declaration, the goals of A World Fit For Children (WFFC), and other internationally agreed upon goals, as a basis for future action; and
- To 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.

Sample and Survey Methodology 2

2.1 Sample Design

The sample for the Isiolo district Multiple Indicator Cluster Survey (MICS) was designed to provide estimates on a large number of indicators on the situation of children and women at the district level. The sampling process took two stages. In the first stage, 50 clusters (census enumeration areas) in the district were selected with probability proportional to size. Thereafter, a household listing was carried out within each of the selected enumeration areas (EAs), and then stratified into two groups, the first one having children below three years of age, and the second not having children below three. In the second stage, a systematic sample of 16 households was selected from stratum one and 8 households from stratum two in each cluster. The sample selection process was not self-weighting because of the stratification. A more detailed description of the sample design can be found in Appendix A. The results presented in this process uses sample weights.

2.2 Questionnaires

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

The Household Questionnaire included the following modules:

- Household Listing
- Education
- Water and Sanitation
- Malaria-related questions
- Child Labour
- Child Discipline
- Salt Iodization

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

- Child Mortality
- Tetanus Toxoid
- Maternal and Newborn Health
- Marriage and Union
- Contraception
- Attitudes Towards Domestic Violence
- Female Genital Mutilation/Cutting
- HIV knowledge/AIDS

The Questionnaire for children under five was administered to mothers of children under five years[2] living in the households, or in their absence, to caretakers of such children. The questionnaire included the following modules:

- Birth Registration and Early Learning
- Child Development
- Vitamin A
- Breastfeeding
- Care of Illness
- Malaria
- Immunization
- Anthropometry

The questionnaires are based on the MICS 3 model questionnaire.[3] From the MICS 3 model English version, the questionnaires were translated into Kiswahili, Borana, Kamba, Meru, and Embu languages.

In addition to the administration of questionnaires, fieldwork teams tested the salt used for cooking in the households for iodine content, and measured the weights and heights of children aged 0-59 months. Details and findings of these measurements are provided in the respective sections of the report.

2.3 Training and Fieldwork

The June 2008 training for the fieldwork was conducted in two parts, three days training for the mapping and listing teams, and 12 days training for the main survey teams. Training included lectures on interviewing techniques and the contents of the questionnaires, and mock interviews between trainees to gain practice in asking questions. Towards the end of the training period, trainees spent one full day practising interviewing in different locations of Isiolo district.

The household listing was carried out by three teams, each comprised of one person to do the listing and the other to map. These three teams were supervised by the District Statistical Officer (DSO), with the whole listing operation being monitored by the district coordinator located at the Bureau headquarters.

The data were collected by two teams, each comprising three interviewers, one driver, one editor/measurer and a supervisor. Fieldwork began at the end of June 2008 and concluded in August 2008.

2.4 Data Processing

Data were entered using the Census and Survey Processing System (CSPro) software. In order to ensure quality control, all questionnaires were double entered and internal consistency checks were performed, and the whole process was monitored by two supervisors. Procedures and standard programs developed under the global MICS 3 project and adapted to the modified questionnaire were used throughout. Data processing began simultaneously with data collection in July 2008 and was completed in September 2008. Data were analysed using the Statistical Package for Social Sciences (SPSS) software program, and the model syntax and tabulation plans developed by UNICEF were customized for this purpose.

[2] The terms “children under 5”, “children age 0-4 years”, and “children aged 0-59 months” are used interchangeably in this report.
[3] The model MICS3 questionnaire can be found at www.childinfo.org, or in UNICEF, 2006.

3.1 Sample Coverage

A summary of the sample coverage is presented in Table 3.1. Of the 1,200 households selected, 1,175 were located on the ground out of which 1,087 were successfully interviewed yielding a household response rate of 93 per cent. In the interviewed households, 1,068 women (age 15-49 years) were identified and 997 were successfully interviewed, yielding a response rate of 93 per cent. In addition, 1,087 children under age five were listed in the households, of whom questionnaires were completed for 1,072 resulting in a response rate of 99 per cent. Overall response rates of 86 per cent and 91 per cent realised for the women and under-five interviews, respectively (Table 3.1 (HH.1)).

Table 3.1 (HH.1): Results of household and individual interviews

Number of households, women, and children under 5 by results of the interviews, and household, women's and under-five's response rates, Isiolo district, Eastern Province, Kenya 2008

Number of households	
Sampled (H_s)	1,200
Occupied (H_o)	1,175
Interviewed (H_i)	1,087
Response rate (H_r)	92.5
Number of women	
Eligible (W_e)	1,068
Interviewed (W_i)	997
Response rate (W_r)	93.4
Overall response rate (W_{or})	86.4
Number of children under 5	
Eligible (C_e)	1,087
Information collected (C_i)	1,072
Response rate (C_r)	98.6
Overall response rate (C_{or})	91.2

$H_r = H_i / H_o$ (where H_o is HH8 = 1, 2, 3 or 6)
$W_r = W_i / W_e$; $W_{or} = W_r \times H_r$;
$C_r = C_i / C_e$; $C_{or} = C_r \times H_r$
Note: This table is un-weighted, however all other tables presented in this report are weighted unless mentioned otherwise.

3.2 Characteristics of the Household Population

The age and sex distribution of the survey respondents is presented in Table 3.2 (HH.2). The distribution is also used to produce the population pyramid in Figure 3.1 (HH.1). A total of 5,012 household members were listed comprising of 2,534 males and 2,478 females respectively, yielding a sex ratio of 1.02. The age and sex structure is further depicted in Figure 3.1 (HH.1).

The share of the population below 15 years is almost the same as those between ages 15 to 64, while that of the elderly (population aged 60 years and above) is only four per cent. The dependency ratio, defined as the ratio of the population under 15 years of age plus persons aged 65 and over to persons aged 15-64 is about 107. This indicates that for every 100 persons in the 15-64 age-groups, there about 107 persons below age 15 or aged above 65 years.

Table 3.2 (HH.2): Household age distribution by sex

Percentage distribution of the household population by five-year age groups and dependency age groups, and number of children aged 0-17 years, by sex, Isiolo district, Eastern Province, Kenya 2008

	Males		Females		Total	
Characteristics	Number	Per cent	Number	Per cent	Number	Per cent
Age						
0-4	428	16.9	406	16.4	834	16.6
5-9	418	16.5	436	17.6	853	17.0
10-14	357	14.1	369	14.9	726	14.5
15-19	293	11.6	248	10.0	541	10.8
20-24	177	7.0	217	8.8	394	7.9
25-29	172	6.8	166	6.7	338	6.8
30-34	129	5.1	135	5.5	264	5.3
35-39	88	3.5	100	4.0	188	3.7
40-44	88	3.5	79	3.2	167	3.3
45-49	80	3.1	58	2.3	137	2.7
50-54	101	4.0	97	3.9	198	4.0
55-59	61	2.4	42	1.7	103	2.0
60-64	51	2.0	40	1.6	91	1.8
65-69	23	0.9	17	0.7	39	0.8
70+	69	2.7	66	2.7	134	2.7
Missing/DK	2	0.1	2	0.1	4	0.1
Dependency age groups						
< 15	1,203	47.5	1,211	48.9	2,414	48.2
15-64	1,238	48.9	1,182	47.7	2,420	48.3
65 +	91	3.6	83	3.3	174	3.5
Missing/DK	2	0.1	2	0.1	4	0.1
Children aged 0-17	1,385	54.7	1,343	54.2	2,728	54.4
Adults 18+/Missing/ DK	1,149	45.3	1,135	45.8	2,284	45.6
Total	**2,534**	**100.0**	**2,478**	**100.0**	**5,012**	**100.0**

Figure 3.1: Age and Sex Distribution of Household Population

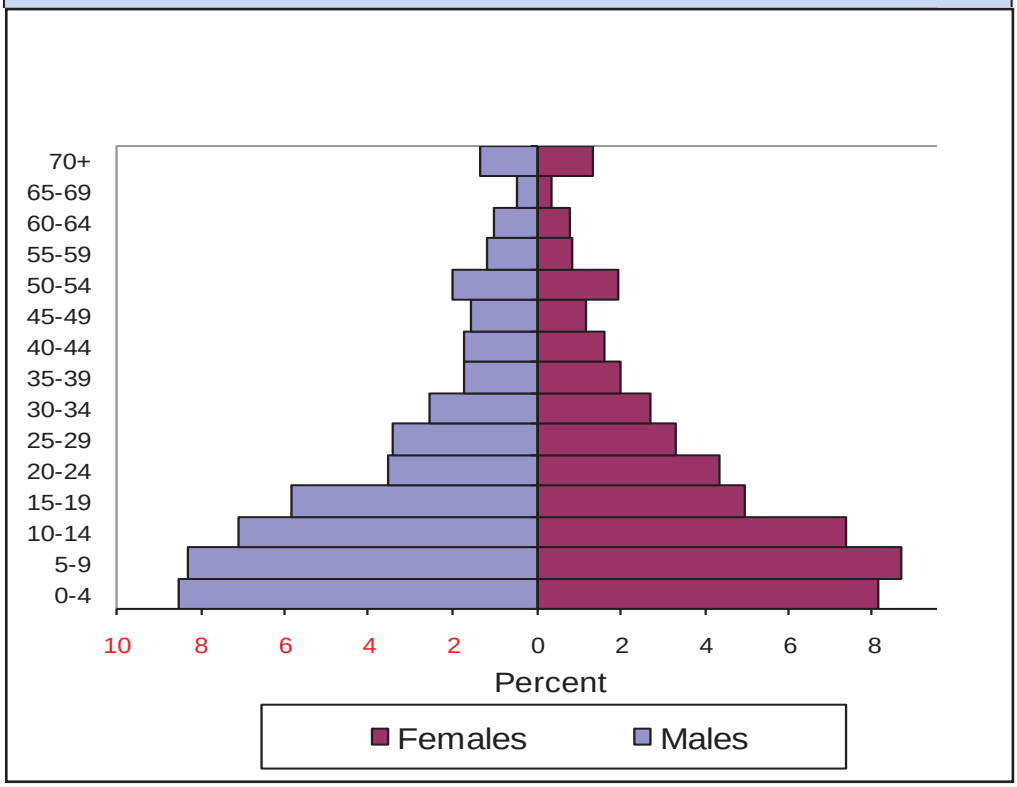


Table 3.3 (HH.3) further shows information on the characteristics of the households. About 30 per cent of the households are headed by females. The mean household size is 4.6. About five per cent of the households are reported to have been displaced during the one year period preceding the survey. Nearly half of the households have at least one child below five years of age, while eight in ten households have at least a child below age 18 years. Three quarters of the households have at least one woman in the reproductive age groups (15-49 years).

Table 3.3 (HH.3): Household composition

Percentage distribution of households by selected characteristics, Isiolo district, Eastern Province, Kenya 2008

Characteristics	Weighted per cent	Number of households	
		Weighted	Un-weighted
Sex of household head			
Male	69.8	759.0	771
Female	30.2	328.0	316
Number of household members			
1	10.6	115.6	68
2-3	27.3	296.4	265
4-5	28.4	309.1	344
6-7	20.5	222.3	244
8-9	9.9	107.3	119
10+	(3.3)	36.2	47
Mean household size	4.6	NA	NA
Household displaced during last 12 months			
Yes	4.6	50	6
No	95.4	1037	1095
Total	**100.0**	**NA**	**NA**
At least one child aged < 18 years	80.6	1,087	1,087
At least one child aged < 5 years	51.7	1,087	1,087
At least one woman aged 15-49 years	74.2	1,087	1,087

3.3 Characteristics of Female Respondents

Table 3.4 (HH.4) shows the distribution of female respondents aged 15-49 years by background characteristics, including age, marital status, mother's education status[4], and wealth index[5]. Forty three per cent of the women are below age 24 years. Nearly seven out of every ten women are currently married. Nearly a quarter have never been married or in union. About 76 per cent had previously given birth, and 52 per cent of women in the reproductive age had never been to school, with only 13 per cent having attained secondary and above level of education. The majority of the women (48 per cent) are from households categorised as low wealth index.

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

[5] Principal components analysis was performed by using information on the ownership of household goods and amenities (assets) to assign weights to each household asset, and obtain wealth scores for each household in the sample (The assets used in these calculations were as follows: number of sleeping rooms, type of floor, type of roof, type of walls, type of fuel used for cooking, electricity, radio, television, telephone (mobile or land line), refrigerator, computer, internet connection, watch, bicycle, motorcycle or scooter, animal drawn cart, car or truck, boat with motor, source of drinking water and type of sanitation). Each household was then weighted by the number of household members, and the household population was divided into three groups, based on the wealth scores of households they were living in. 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, and 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 Rutstein and Johnson, 2004, and Filmer and Pritchett, 2001.

Table 3.4 (HH.4): Women's background characteristics

Percentage distribution of women aged 15-49 years by background characteristics, Isiolo district, Eastern Province, Kenya 2008

Characteristics	Weighted per cent	Number of women	
		Weighted	Un-weighted
Age			
15-19	21.9	218	190
20-24	21.9	218	242
25-29	17.3	173	187
30-34	14.0	139	152
35-39	9.9	99	99
40-44	8.8	88	72
45-49	6.2	62	55
Marital/Union status			
Currently married/in union	68.2	680	718
Formerly married	10.9	109	103
Never married	20.9	209	176
Motherhood status			
Ever gave birth	75.9	757	809
Never gave birth	24.1	240	188
Education			
None	51.5	514	531
Primary	34.9	348	349
Secondary +	13.4	134	114
Non-standard Curriculum	0.2	2	3
Wealth index			
Low	47.8	476	482
Medium	16.2	162	154
High	36.0	359	361
Total	**100.0**	**997**	**997**

3.4 Characteristics of Children Under Five

Table 3.5 (HH.5) shows the distribution of children under five by background characteristics. About 12 per cent of children are aged less than 12 months. Sixty four per cent of children have mothers with no education and only eight per cent have mothers with secondary and above level of education. More than half (57 per cent) of the children belong to low wealth index households.

Table 3.5 (HH.5): Children's background characteristics

Percentage distribution of children under five years of age by background characteristics, Isiolo district, Eastern Province, Kenya 2008

Characteristics	Weighted per cent	Number of under-5 children	
		Weighted	Un-weighted
Sex			
Male	51.6	553	563
Female	48.4	519	509
Age			
< 6 months	10.5	113	121
6-11 months	12.1	130	131
12-23 months	19.5	209	215
24-35 months	20.3	218	221
36-47 months	20.3	218	211
48-59 months	17.3	186	173
Mother's education			
None	64.4	690	664
Primary	27.7	297	309
Secondary +	7.7	83	96
Non-standard Curriculum	0.2	2	3
Wealth index			
Low	57.5	617	565
Medium	16.2	174	170
High	26.3	282	337
Total	**100.0**	**1,072**	**1,072**

One of the overarching targets of the Millennium Development Goals (MDGs)-Goal 4 and the World Fit for Children (WFFC) is to reduce infant and under-five mortality. The MDGs called for the reduction in under-five mortality by two-thirds between 1990 and 2015. Estimates of mortality levels from the district level MICS were obtained using the direct approach from birth history data. The birth history obtained from women aged 15-49 years include the numbers of children ever born and living by sex, and the date of birth of each child ever born alive. If the child is not alive at the time of survey, information on age of the child at the time of death is also obtained. This is the same approach used in Demographic Health Surveys (DHS). Therefore, results obtained from the MICS can be compared to DHS mortality estimates.

Infant mortality is the probability of a child born alive dying before their first birthday, while under-five mortality is the probability of dying before the fifth birthday. Neonatal mortality is the probability of dying before one month of life, and post neonatal mortality is the probability of dying between one month and one year of life. Child mortality refers to the probability of dying between one and five years of life. These estimates are usually expressed as per 1,000 child births with the exception of child mortality which is expressed as per 1,000 children surviving up to the first birthday.

The quality of these mortality estimates depends on the completeness of information obtained in the birth histories. In many cases women tend to avoid reporting their dead children and this underestimates the mortality levels.

4.1 Levels of Childhood Mortality

Table 4.1 provides estimates of childhood mortality for the ten year period preceding the survey. The estimates show that for every 1,000 children born alive in the district, 43 do not live up to their first birthday and 56 do not live up to the fifth birthday. About 77 per cent of under-five mortality occurs in the first year of life. Furthermore, 30 per cent of the deaths during infancy occur in the first month of life (neonatal period).

Table 4.1: Child mortality

Infant and under-five mortality rates by 10 year periods, Isiolo, Eastern, Kenya, 2008

Periods of analysis of 10 years	Neonatal mortality	Post neonatal mortality	Infant mortality*	Child mortality	Under five mortality**
	Mean	Mean	Mean	Mean	Mean
0-9	30	13	43	13	56
10-19	18	25	44	16	59

***MICS indicator 2; MDG indicator 14**
****MICS indicator 1; MDG indicator 13**

Nutrition 5

Children's nutritional status is the result of interactions between food consumption and the overall status of health and care practices. At the individual level, inadequate or poor feeding patterns lead to malnutrition. Numerous socio-economic and cultural factors influence decisions on care and feeding patterns, and hence children's nutritional status. When children do not have access to an adequate food supply, and/or are exposed to repeated illness, it may lead to malnutrition.

Malnutrition is associated with more than half of all childhood deaths worldwide. Undernourished children are more likely to die from common childhood ailments, and for those who survive, they tend to experience recurring sicknesses and faltering growth. The Millennium Development Goal 1 (target 2), is to reduce by half, the proportion of the population below the minimum level of dietary energy consumption, between 1990 and 2015. The World Fit for Children goal is to reduce the prevalence of malnutrition among children under five years of age, by at least one-third (between 2000 and 2010), with special attention to children under two years of age. A reduction in the prevalence of malnutrition will assist in the goal to reduce child mortality.

5.1 Nutritional Status

The government and other development partners including WHO and UNICEF aim to scale up proven, high-impact, cost-effective health and nutrition interventions, to reduce the number of neonatal and child deaths from preventable and easily treatable causes. In a well-nourished population, there is a reference distribution of height and weight for children under age five. The extent of under-nourishment in a population can be gauged by comparing measures of nutritional status of children in a given population to that of the reference population. This report adopts the WHO/CDC/NCHS reference. Three standard indices of physical growth that describe nutritional status of children under five are: weight-for-age (underweight), height-for-age (stunting) and weight-for-height (wasting). Each of the three nutritional status indicators is expressed in standard deviations (often referred to as z-scores), from the median of the reference population.

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

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

Weight-for-age is a composite index of height-for-age and weight-for-height. It does not distinguish between acute malnutrition (wasting) and chronic malnutrition (stunting). Thus a child can be underweight for his/her age because she/he is stunted, wasted or both. Children whose weight-for-age is more than two standard deviations below the median of the reference population are considered *moderately underweight* while those whose weight-for-age is more than three standard deviations below the median are classified as *severely underweight.*

In the district level MICS, weights and heights of all children aged 6-59 months were measured using anthropometric equipment recommended by UNICEF (UNICEF, 2006). Findings in this section are based on the results of these measurements.

Table 5.1 (NU.1) shows the distribution of children classified into each of the above categories. However, for weight-for-height, the proportion whose weight-for-height is *above* two standard deviations from the median of the reference population has been included. Such children are considered to be overweight. The information presented in Table 5.1 excludes children who were not weighed and measured (approximately two per cent), and those whose measurements are outside a plausible range.

Results indicate that 22 per cent of children aged 6-59 months are moderately underweight, about 15 per cent are moderately stunted, and 12 per cent are moderately wasted. It is also evident that education influences malnutrition; the proportion of underweight or stunted children whose mothers have secondary or higher education is lower than that of children whose mothers have no education. Similarly, the proportion of under-weight, stunted or wasted children from high wealth index households is relatively lower than for children from medium and low wealth index households. Interestingly, although a small proportion of children were over-weight, the proportion of children who are over-weight (obese) seems to increase with increasing levels of mother's educational attainment.

There are minimal differences in the nutritional status of male and female children. However, with respect to age (see Figure 5.1), children aged 12-23 months are more likely to be stunted than other age groups. This pattern is expected since it's related to the age at which many children are weaned. The figure also shows that malnutrition increases after 42 months when, arguably, children become more independent of their mothers.

Table 5.1 (NU.1): Child malnourishment

Percentage of children aged 6-59 months who are severely or moderately malnourished, Isiolo district, Eastern Province, Kenya 2008

	Weight-for-age		Height-for-age		Weight-for-height			Number of children aged 6-59
Characteristics	% - 2 SD	% - 3 SD*	% - 2 SD**	% - 3 SD**	% - 2 SD***	% - 3 SD***	% + 2 SD	
Sex								
Male	22.3	4.2	15.3	5.8	11.8	3.1	1.0	424
Female	22.0	5.8	15.4	4.2	12.7	2.6	0.6	412
Age								
6-11 months	10.1	1.4	3.5	1.0	10.3	2.0	3.0	105
12-23 months	24.4	6.9	22.6	6.0	10.7	4.1	0.2	182
24-35 months	26.6	5.5	16.4	5.9	13.3	5.4	0.9	193
36-47 months	18.5	6.1	13.2	4.3	10.9	0.5	0.8	191
48-59 months	27.4	3.4	16.5	6.6	15.5	2.0	0.0	159
Mother's education								
None	25.1	5.6	18.3	5.4	14.0	2.8	0.2	523
Primary	19.9	5.2	11.5	5.3	11.1	3.6	1.2	242
Secondary +	8.3	0.0	6.9	1.5	3.1	0.5	4.5	70
Non Standard	(*)	(*)	(*)	(*)	(*)	(*)	(*)	2
Wealth index								
Low	27.1	6.1	19.6	6.5	16.1	3.5	0.2	464
Medium	22.1	4.9	13.6	4.0	9.8	3.0	0.0	147
High	12.0	2.9	7.7	2.5	5.8	1.4	2.6	226
Total	**22.1**	**5.0**	**15.3**	**5.0**	**12.2**	**2.9**	**0.8**	**837**

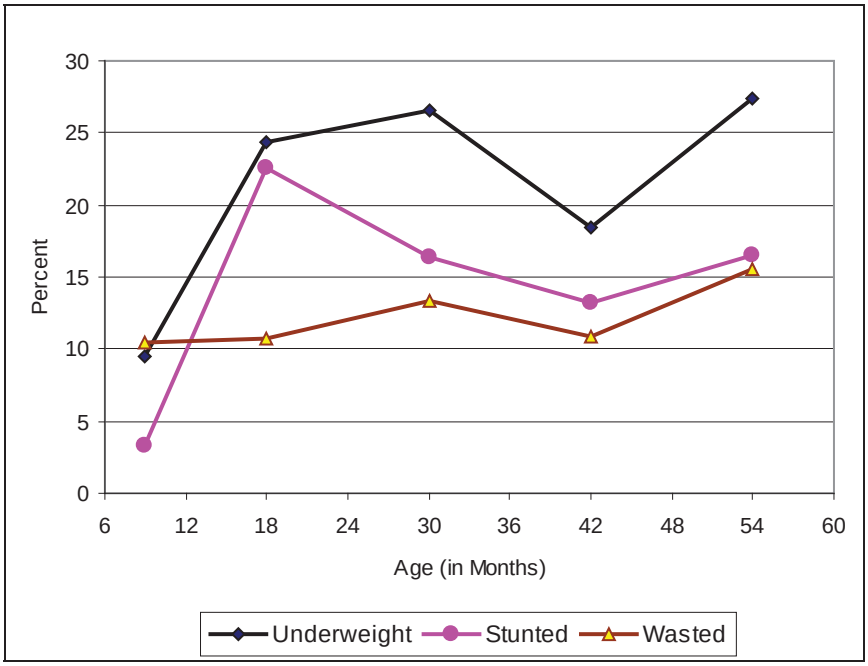
***MICS indicator 6; MDG indicator 4**
****MICS indicator 7**
***MICS indicator 8**

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figure in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

Columns 1 and 2 refer to children whose weight for age z-scores (i.e., the exact number of standard deviations from the median) fall below -2 standard deviations (moderately underweight) and -3 standard deviations (severely underweight) from the median weight for age of the NCHS reference population. Columns 3 and 4 refer to children whose height for age z-scores fall below -2 standard deviations (moderately stunted or short for their age) and -3 standard deviations (severely stunted or short for their age) from the median height for age of the reference population. Stunted children are considered as chronically undernourished. Columns 5 and 6 refer to children whose weight for height z-scores fall -2 standard deviations (moderately wasted) or -3 standard deviations (severely wasted) from the weight for height of the reference population. Wasting is usually the result of a recent nutritional deficiency. The table also includes the percent of children who are overweight, which takes into account those children whose weight for height is above 2 standard deviations from the median of the reference population.

The per cent 'below -2 standard deviations' includes those who fall -3 standard deviations below the median. Children whose height or weights are missing are excluded from the calculations. If height and weight data are missing for more than 10 per cent of under-five children, caution should be exercised in the interpretation of the results. In addition, children for whom the indices are out of range are omitted.

Figure 5.1: Percentage of children age 6-59 months who are undernourished



5.2 Breastfeeding

Breastfeeding for the first few years of life protects children from infection, provides an ideal source of nutrients, and is economical and safe. However, many mothers stop breastfeeding too soon and there are often pressures to switch to infant formula, which can contribute to growth faltering and micronutrient deficiency, and is unsafe if clean water is not readily available. The World Fit for Children goal states that children should be exclusively breastfed for six months and continue to be breastfed with safe, appropriate and adequate complementary feeding for up to two years of age and beyond.

WHO/UNICEF have the following feeding recommendations:

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

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

The indicators of recommended child feeding practices are as follows:

- Exclusive breastfeeding rate (< six months & < four months)
- Timely complementary feeding rate (6-9 months)
- Continued breastfeeding rate (12-15 & 20-23 months)
- Timely initiation of breastfeeding (within one hour of birth)
- Frequency of complementary feeding (6-11 months)
- Adequately fed infants (0-11 months)

Table 5.2 (NU.2) indicates that in Isiolo district, 53 per cent of women who had a live birth in two years preceding the survey started breastfeeding their infants within one hour of birth, while 78 per cent did so within one day. However, it should be noted that women who started breastfeeding

within one day of birth also include those who started within one hour. More than half of the mothers with no education or with primary education start breastfeeding their new-born within one hour of birth compared to 44 per cent of mothers with secondary or higher education. With regard to household wealth index, 60 per cent of women in the medium category initiated breastfeeding within one hour of birth compared to 54 and 48 per cent for those from low and high wealth index households, respectively.

Table 5.2 (NU.2): Initial breastfeeding

Percentage of women aged 15-49 years with a birth in the two years preceding the survey who breastfed their baby within one hour of birth and within one day of birth, Isiolo District, Eastern Province, Kenya 2008

Characteristics	Percentage who started breastfeeding within one hour of birth*	Percentage who started breastfeeding within one day of birth**	Number of women with a live birth in the two years preceding the survey
Months since birth			
< 6 months	55.0	79.2	92
6-11 months	59.1	82.2	100
12-23 months	48.0	76.1	150
More than 23 months	(56.5)	(70.9)	25
Mother's education			
None	55.1	76.3	231
Primary	51.4	79.8	110
Secondary +	(43.5)	(88.5)	24
Non Standard Curriculum	(*)	(*)	1
Wealth index			
Low	54.1	76.0	218
Medium	60.2	79.8	51
High	48.0	82.2	97
Total	**53.3**	**78.2**	**366**

***MICS indicator 45**

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figure in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

Information regarding exclusive breastfeeding and complementary feeding is provided in Tables 5.3a and 5.3b (NU.3) and Figure 5.2. The information is based on the mothers/caretakers report of children's consumption of food and fluids in the 24 hours prior to the interview. *Exclusively breastfed* refers to infants who received only breast milk (and vitamins, mineral supplements, or medicine).

Table 5.3a shows exclusive breastfeeding of infants during the first six months of life (separately for 0-3 months and 0-5 months).

Only 19 per cent of children aged less than six months are exclusively breastfed, which is low if exclusive breastfeeding is recommended for the first six months of birth. Male children are more likely to be exclusively breastfed than females during 0-3 months and also for the 0-5 months period.

Table 5.3a (NU.3): Breastfeeding

Percentage of living children according to breastfeeding status at each age group, Isiolo district, Eastern Province, Kenya 2008

	Children 0-3 months		Children 0-5 months	
Characteristics	Percentage exclusively breastfed	Number of children	Percentage exclusively breastfed *	Number of children
Sex				
Male	25.3	48	22.1	74
Female	(13.1)	25	(13.6)	39
Mother's education				
None	20.3	50	21.0	74
Primary	(*)	19	(19.0)	32
Secondary+	(*)	3	(*)	6
Non-standard curriculum	.	0	.	0
Wealth index				
Lowest	(17.9)	45	17.3	67
Middle	(*)	10	(*)	17
Upper	(*)	18	(17.2)	29
Total	**21.1**	**73**	**19.2**	**113**

***MICS indicator 15**

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figure in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

Note: Breastfeeding status is based on mother's or caretaker's reports of children's consumption in the 24 hours prior to the interview. Exclusive breastfeeding refers to children who receive only breast milk, or breast milk and vitamins, mineral supplements, or medicine.

Table 5.3b (NU.3) indicates that about 44 per cent of children aged 6-9 months, are receiving breast milk and solid or semi-solid foods. The percentages that are still breastfed by ages 12-15 months is 81 per cent, and about 38 per cent for the age group 20-23 months.

Table 5.3b (NU.3): Complementary feeding

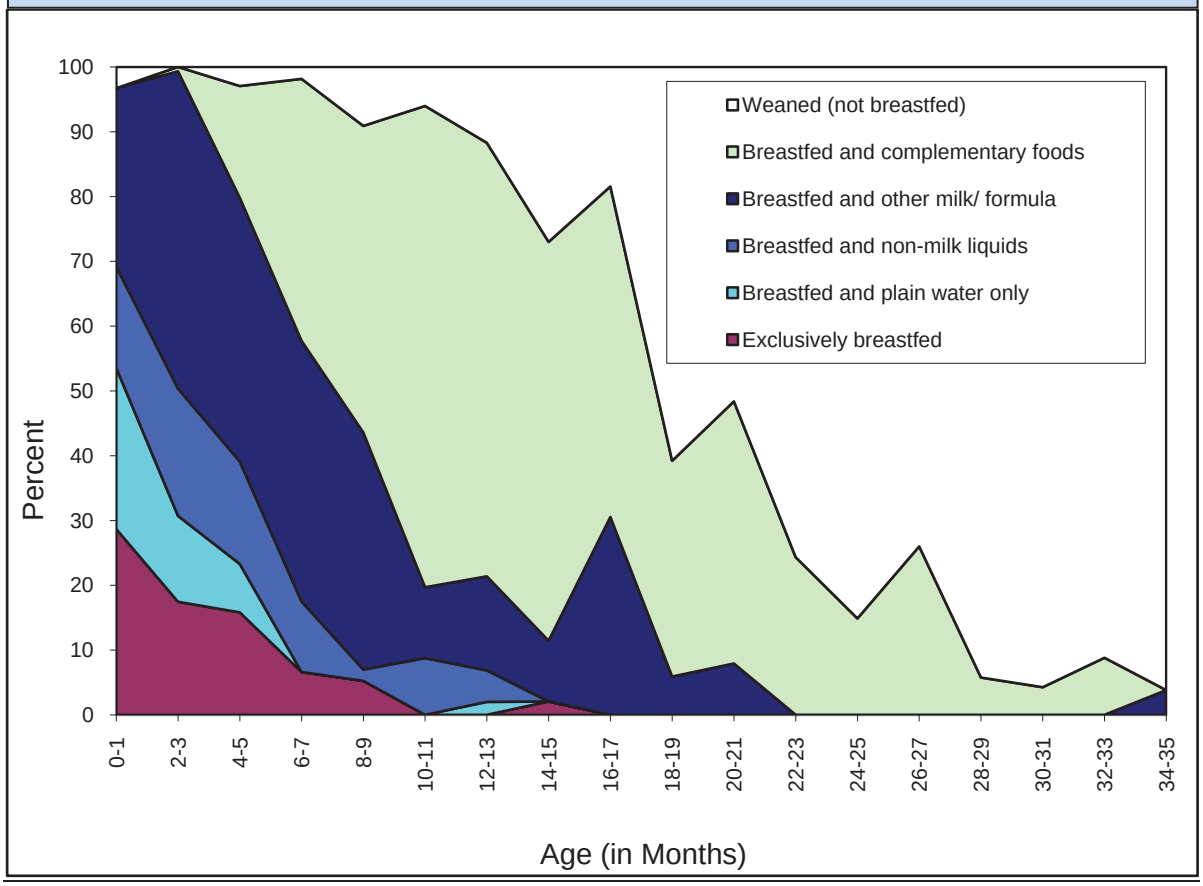
Percentage of living children according to breastfeeding status at each age group, Isiolo district, Eastern Province, Kenya 2008

Characteristics	Children age 6-9 months: Percentage receiving breast milk and solid/ mushy food	Children age 6-9 months: Number of children	Children age 12-15 months: Percentage breastfed	Children age 12-15 months: Number of children	Children age 20-23 months: Per cent breastfed	Children age 20-23 months: Number of children
Sex						
Male	(36.9)	37	(84.7)	37	(39.2)	25
Female	(49.9)	47	(77.5)	38	(36.7)	29
Mother's education						
None	(28.5)	42	77.7	54	(42.6)	34
Primary	(60.9)	32	NS	16	NS	16
Secondary +	NS	9	NS	11	NS	2
Wealth index						
Low	(36.7)	44	(80.3)	36	(40.3)	33
Medium	(*)	12	(*)	38	(*)	5
High	(54.1)	28	(*)	15	(*)	15
Total	**44.1**	**84**	**81.0**	**74**	**37.9**	**53**

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figure in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

Figure 5.2 shows the detailed pattern of breastfeeding by child age in months. Even at the earliest ages, majority of children are receiving liquids or foods other than breast milk. By the end of the sixth month, the percentage of children who are exclusively breastfed is about seven, however only 15 per cent are still breastfed after 24 months of age.

Figure 5.2: Percentage distribution of children aged under 3 years by feeding pattern, Isiolo district, 2008



The adequacy of infant feeding in children under 12 months is summarized in Table 5.4 (NU.4). Several criteria of adequate feeding are defined and used depending on the age of the child. For infants aged 0-5 months, exclusive breastfeeding is considered as adequate feeding. Infants aged 6-8 months are considered to be adequately fed if they are receiving breast milk and complementary food at least twice per day, while infants aged 9-11 months are considered to be adequately fed if they are receiving breast milk and eating complementary food at least three times a day.

One out of every five children aged 0-5 months is currently exclusively breastfed. Among children aged 6-8 months, 35 per cent are receiving breast milk and complementary food. The data further shows that only 32 per cent of children aged 6-11 months are being adequately fed. Adequate feeding among all infants (aged 0-11) is low at 26 per cent. The adequacy in feeding does not vary substantially among male and female children, except for the exclusively breastfed among children aged 0-5 months where a higher proportion of male children are breastfed compared to females. The analysis of adequacy in feeding by household wealth index is unclear with wide variations depending on child age. For example, among the 0-5 months aged children who are meant to be exclusively breastfed, 17 per cent of children from low and high wealth index households are adequately breastfed versus an estimated 31 per cent for middle wealth index households.

Table 5.4 (NU.4): Adequately fed infants

Percentage of infants under 6 months of age exclusively breastfed, percentage of infants 6-11 months who are breastfed and who ate solid/semi-solid food at least the minimum recommended number of times yesterday and percentage of infants adequately fed, Isiolo district, Eastern Province, Kenya 2008

	Percentage of infants					
Characteristics	0-5 months exclusively breastfed	6-8 months who received breast-milk and complementary food at least 2 times in prior 24 hours	9-11 months who received breast-milk and complementary food at least 3 times in prior 24 hours	6-11 months who received breast-milk and complementary food at least the minimum recommended number of times per day*	0-11 months who were appropriately fed**	Number of infants aged 0-11 months
Sex						
Male	22.1	34.0	23.6	28.7	25.0	131
Female	13.6	34.9	35.9	35.4	27.9	112
Mother's education						
None	21.0	22.2	17.5	19.4	20.2	148
Primary	19.0	46.3	54.0	48.8	35.7	73
Secondary+	(0.0)	(39.5)	(82.8)	(56.9)	(38.5)	20
Non-standard curriculum	0.0	0.0	0.0	0.0	0.0	1
Wealth index						
Lowest	17.3	37.6	16.2	26.4	22.0	140
Middle	(30.6)	(27.2)	(23.3)	(25.2)	(27.8)	34
Upper	17.2	32.5	66.1	47.2	34.4	68
Total	**19.2**	**34.5**	**30.4**	**32.4**	**26.3**	**242**

*** MICS indicator 18**

**** MICS indicator 19**

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figure in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

5.3 Salt Iodization

Iodine Deficiency Disorder (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 by impairing mental growth and development, contributing in turn to poor school performance, reduced intellectual ability, and impaired work performance. The international goal is to achieve sustainable elimination of iodine deficiency by 2005. The indicator is the percentage of households consuming adequately iodized salt ($\geq$15 parts per million).

In about 86 per cent of households, salt used for cooking was tested for iodine content by using salt test kits and testing for the presence of potassium iodide. Table 5.5 (NU.5) shows that 14 per cent of households did not have any salt available, with the proportions being highest for those from the low wealth index category (20 per cent). On the other hand, about 83 per cent of households had salt that was adequately iodized (containing 15 parts per million or more of iodine), with the rate increasing marginally with increasing levels of wealth status.

Table 5.5 (NU.5): Iodized salt consumption

Percent age of households consuming adequately iodized salt, Isiolo district, Eastern Province, Kenya 2008

Wealth index	Percentage of households in which salt was tested	Number of households interviewed	Percentage of households: Salt test result: No salt	< 15 PPM	15+ PPM*	Total	Number of households in which salt was tested or with no salt
Low	79.6	544	20.4	3.2	76.4	100.0	544
Medium	93.4	169	6.6	5.3	88.1	100.0	169
High	93.0	374	6.5	4.6	88.9	100.0	372
Total	**86.4**	**1,087**	**13.5**	**4.0**	**82.5**	**100.0**	**1,085**

***MICS indicator 41**

5.4 Vitamin A Supplements

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

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

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

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

Results of the survey show that 31 per cent of the children aged 6-59 months never received any vitamin A supplementation (Table 5.6 (NU.6)). Less than one quarter (23 per cent) of children aged 6-59 months received a high-dose vitamin A supplement within the six months prior to the survey. About 32 per cent did not receive the supplement in the last 6 months, but did receive one prior to that time. An estimated 13 per cent of children received a vitamin A supplement at some time in the past but their mother/caretaker was unable to specify when.

Vitamin A supplementation coverage does not vary much among female and male children. Vitamin A supplementation within the six months prior to the survey declined by more than half among children aged 12-23 months relative to those aged 6-11 months. The mother's level of education is also related to the likelihood of receiving vitamin A supplementation. The percentage of children who received a supplement in the last six months preceding the survey doubled from 20 per cent among children whose mothers had primary education to 41 per cent per cent among children of mothers with secondary or higher education. Household wealth index shows a different pattern from that of education of the mother i.e. the proportion of children receiving vitamin A supplementation increases with increasing levels of the household wealth index.

Table 5.6 (NU.6): Children's vitamin A supplementation

Percentage distribution of children aged 6-59 months by whether they have received a high dose vitamin A supplement in the last 6 months, Isiolo, Eastern Province, Kenya 2008

Characteristics	Percentage of children who received vitamin A: Within last 6 months*	Prior to last 6 months	Not sure when	Not sure if received vitamin A	Never received vitamin A	Missing	Total	Number of children aged 6-59 months
Sex								
Male	24.5	33.1	12.4	1.1	29.0	0.7	100	479
Female	22.2	30.7	14.3	0.7	32.0	0.2	100	481
Age								
6-11 months	54.0	5.4	3.8	0.8	35.1	3.1	100	113
12-23 months	23.1	31.0	14.1	1.1	30.7	0.0	100	209
24-35 months	17.4	37.9	13.7	0.4	30.5	0.0	100	218
36-47 months	15.8	33.2	13.5	1.7	35.7	0.0	100	218
48-59 months	18.2	42.8	18.9	0.5	19.7	0.0	100	186
Mother's education								
None	22.4	29.3	12.2	1.1	35.0	0.5	100	616
Primary	20.4	37.1	17.5	0.4	24.5	0.3	100	265
Secondary +	40.9	33.8	8.9	1.3	15.1	0.0	100	76
Non-standard Curriculum	(*)	(*)	(*)	(*)	(*)	(*)	(*)	2
Wealth index								
Low	19.0	29.5	14.2	0.9	36.3	0.6	100	549
Medium	27.2	35.0	11.9	0.6	25.3	0.0	100	157
High	30.5	35.1	12.4	1.2	20.9	0.3	100	253
Total	**23.4**	**31.9**	**13.4**	**0.9**	**30.5**	**0.4**	**100**	**959**

***MICS indicator 42**

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

About half of the mothers (48 per cent) with a birth in the previous two years before the survey received a vitamin A supplement within eight weeks of the birth (Table 5.7 (NU.7)). Vitamin A coverage increases with the education of the mother i.e. 44 per cent of mothers with no education received vitamin A supplementation compared with 69 per cent among mothers with secondary or higher education levels.

Table 5.7 (NU.7): Post-partum mothers' vitamin A supplementation

Percentage of women aged 15-49 years with a live birth in the 2 years preceding the survey by whether they received a high dose vitamin A supplement before the infant was 8 weeks old, Isiolo, Eastern Province, Kenya 2008

Characteristics	Received vitamin A supplement*	Not sure if received vitamin A	Number of women aged 15-49 years
Education			
None	43.5	0.6	231
Primary	51.7	0.5	110
Secondary +	(69.2)	(3.0)	24
Non-standard curriculum	(*)	(*)	1
Wealth index	42.2	0.7	218
Low	60.1	0.0	51
Medium	53.6	1.4	97
High			
Total	**47.7**	**0.8**	**366**

***MICS indicator 43**

* The numerator includes all women who say they received a vitamin A dose in the first two months after their last birth (even if their last birth was less than two months prior to the interview). The denominator includes women who had a live birth in the two years preceding the date of interview.

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figure in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

5.5 Low Birth Weight

Weight at birth is a good indicator not only of a mother's health and nutritional status but also of the newborn's chances of survival, growth, long-term health and psychosocial development. Low birth weight (less than 2,500 grams) carries a range of grave health risks for children. Babies who were undernourished in the womb face a greatly increased risk of dying during their early months and years. Those who survive have impaired immune function and face an increased risk of having diseases. Such children are likely to remain undernourished, with reduced muscle strength throughout their lives, and suffer a higher incidence of diabetes and heart disease in later life. Children born underweight also tend to have a lower IQ and cognitive disabilities, which affects 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 with the most impact are: the mother's poor nutritional status before conception, short stature (due mostly to under nutrition and infections during her childhood), and poor nutrition during the pregnancy. Inadequate weight gain during pregnancy is particularly important since it accounts for a large proportion of foetal growth retardation. Moreover, diseases such as diarrhoea and malaria which are common in many developing countries can significantly impair foetal growth if the mother becomes infected during pregnancy.

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

One of the major challenges in measuring the incidence of low birth weight is the fact that more than half of infants in the developing world are not weighed. In the past, most estimates of low birth weight for developing countries were based on data compiled from health facilities. However, these estimates are biased for most developing countries because the majority of newborns are not delivered in facilities, and those who are, represent only a smaller proportion 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 proportion 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.[6]

Table 5.8 (NU.8) shows that about 46 per cent of births were weighed at birth and approximately 11 per cent of infants are estimated to weigh less than 2,500 grams at birth. It is also evident that only one third of births by women with no education were weighed at birth compared with nine out of ten births for mother's who have secondary education or more. The proportion of babies weighed at birth increases with increasing levels of household wealth index. For example, 81 per cent of infants from high wealth index households were weighed at birth versus only 29 per cent among those from low wealth index households.

Table 5.8 (NU.8): Low birth weight infants

Percentage of live births in the 2 years preceding the survey that weighed below 2500 grams at birth, Isiolo district, Eastern Province, Kenya 2008

Characteristics	Percentage of live births: Below 2500 grams*	Weighed at birth**	Number of live births
Mother's education			
None	11.2	33.6	231
Primary	10.5	60.6	110
Secondary +	9.8	90.5	24
Non-standard Curriculum	(*)	(*)	1
Wealth index			
Low	11.7	29.3	218
Medium	10.4	48.6	51
High	9.6	80.6	97
Total	**10.9**	**45.6**	**366**

***MICS indicator 9**

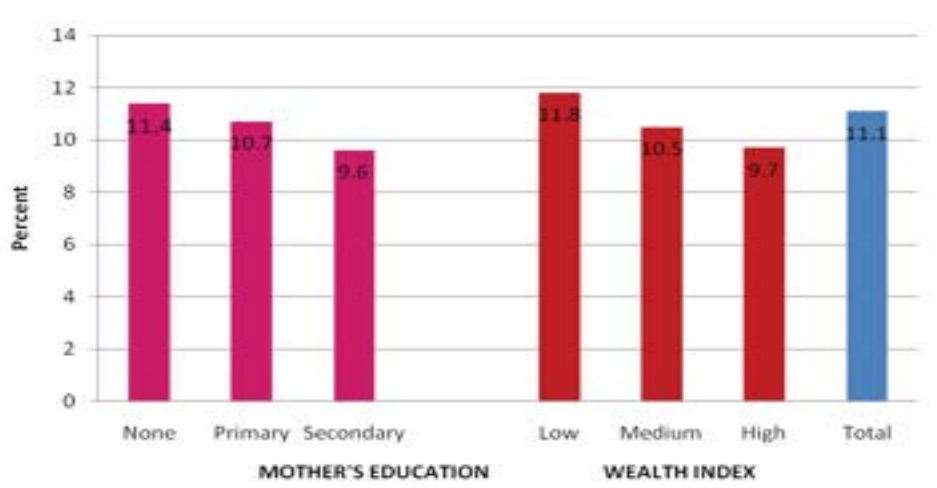
****MICS indicator 10**

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figure in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

Figure 5.3 shows that although the proportion of births estimated to weigh less than 2,500 grams at birth declines by mother's level of education attainment, these differences remain very slim. A similar conclusion can be made by variations in the levels of the household wealth index.

[6] For a detailed description of the methodology, see Boerma, Weinstein, Rutstein and Sommerfelt, 1996.

Figure 5.3: Percentage of infants weighing Less Than 2500 Grams at Birth



5.6 Food Relief

Table 5.9 provides summary information on food relief and distribution. About 21 per cent of the households are registered as beneficiaries of food distribution programs in Isiolo district with the proportion of registered households declining with increasing levels of household wealth index. Among those registered, close to one in three (31 per cent) households received food supplies during the previous one week prior to the survey, 35 per cent received during the last one month, while 24 per cent received between 1-3 months before the survey. A modest four per cent of all households reported the relief supply to be sufficient for their household food needs.

Table 5.9 (NU11): Food relief

Percentage of households registered as beneficiary of food distribution program, and of those registered, time of last receipt of food and whether meeting their full requirement or not, Isiolo district, Eastern Province, Kenya 2008

			Percentage of households by time last receipt of food distribution						
Wealth index	Percentage households registered as beneficiary of food distribution	Total number of households	Within one week	Within one month	Between 1-3 months	Between 3-6 months	After 6 months	Percentage of households reporting supply meeting all their food needs	Number of households registered as beneficiary of food distribution
Low	29.6	544	24	40.5	22.9	5.5	7.5	5.9	161
Medium	22.5	169	24.2	47.0	26.3	4.8	7.0	7.5	38
High	8.0	374	41.2	19.4	23.5	9.9	15.9	0.8	30
Total	**21.1**	**1,087**	**31.4**	**35.4**	**23.5**	**6.0**	**8.6**	**4.4**	**229**

Child Health 6

6.1 Immunization

The Millennium Development Goal (MDG) 4 is to reduce child mortality by two thirds between 1990 and 2015. Immunization plays a key part in this goal. Immunization has saved the lives of millions of children in the three decades since the launch of the Expanded Programme on Immunization (EPI) in 1974. Worldwide, there are still 27 million children not reached by routine immunization and as a result, vaccine-preventable diseases cause more than two million deaths every year.

A World Fit for Children goal is to ensure full immunization of children under one year of age at 90 per cent nationally, with at least 80 per cent coverage in every district or equivalent administrative unit. The Kenya Expanded Programme on Immunizations (KEPI) and the Malezi Bora (a comprehensive initiative to protect children's health in Kenya) campaigns are playing key roles in this regard.

In Kenya, and in accordance with the Ministry of Health guidelines, a child should by the age of 12 months receive a BCG vaccination to protect him/her against tuberculosis, three doses of DPT to protect against diphtheria, pertussis and tetanus, and three doses of Polio vaccine. The measles vaccine should be administered by the age of nine months according to UNICEF and WHO guidelines.

In this survey, mothers or caretakers of children below five years of age were asked to provide vaccination cards, from which interviewers copied vaccination information onto the questionnaire. However, information about children with no immunization card was obtained using a set of structured direct questions on immunization. The immunization coverage shown in this report includes information from cards as well as re-call, unless mentioned otherwise.

The results of the survey are displayed in Table 6.1 (CH.1), Table 6.2 (CH.2) and Figure 6.1, respectively.

Among all the children aged 12-23 months, 84 per cent received a BCG vaccination by the age of 12 months (Table 6.1). About 78 per cent received the first dose of DPT. This proportion however declines marginally for subsequent doses of DPT (Figure 6.1). Similarly, 84 per cent of children received Polio 1 by age 12 months, and this declines to 69 per cent for Polio 3. The coverage for measles vaccine which is meant to be given at 9 months of age is much lower than for all other vaccines at 55 per cent using the cut-off age of 12 months. In other wards, although 60 per cent of children aged 12-23 months received measles vaccine, only 55 per cent received it by their first birthday. About 39 per cent of children in Isiolo district received all the recommended vaccinations by their first birthday which is way below the national and recommended average coverage of at least 90 per cent. The proportion of children who reportedly did not receive any vaccines was 12 per cent which is again higher than the national average.

Table 6.1 (CH.1): Vaccinations among children

Percentage of children aged 12-23 months immunized against childhood diseases at any time before the survey and before the first birthday, Isiolo district, Eastern Province, Kenya 2008

Vaccinated at any time before the survey	Percentage of children who received:											Number of children aged 12-23 months
	BCG *	DPT 1	DPT 2	DPT3**	Polio 0	Polio 1	Polio 2	Polio 3***	Measles****	All*****	None	
According to:												
Vaccination card	68.6	61.3	59.4	55.6	54.4	68.6	66.1	61.9	45.0	41.1	0.0	209
Mother's report	17.1	16.5	15.2	13.1	10.8	16.9	15.5	7.4	15.2	4.6	11.7	209
Either	85.7	77.8	74.7	68.6	65.2	85.5	81.6	69.3	60.2	45.8	11.7	209
Vaccinated by 12 months of age	84.3	77.8	73.9	68.6	63.8	83.5	81.6	69.3	54.5	38.7	11.7	209

***MICS indicator 25**
****MICS indicator 27**
*****MICS indicator 26**
******MICS indicator28; MDG indicator 15**
Total number of 12-23 month olds vaccinated with BCG, (OPV3, DPT3, Measles, HepB, or HiB) before 12 months, as validated by card or mother's recall. To estimate the number of children without a card to have received vaccine before 1st birthday the proportion of vaccinations given during the first year of life is assumed to be the same as for the proportion of children with a card that received the vaccine before 1st birthday.
*******MICS indicator 31**
*Children who received 'all' vaccinations are those who have received 3 doses of DPT, 3 doses of Polio (excluding Polio 0), BCG, and Measles.

Figure 6.1: Percentage of children aged 12-23 months who received the recommended vaccinations by 12 months

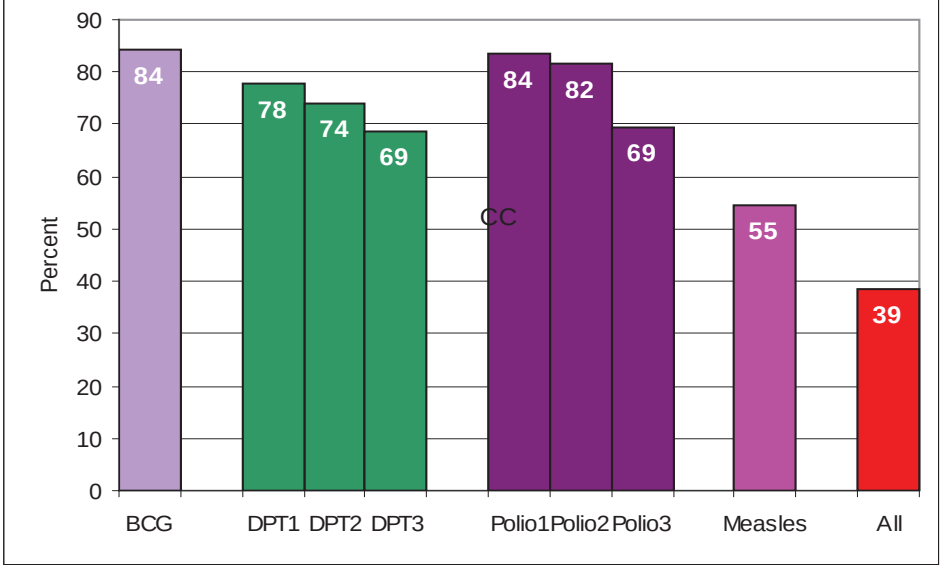


Table 6.2 (CH.2) shows vaccination coverage rates among children aged 12-23 months by background characteristics. Only 71 per cent of children's health cards were available, suggesting the extent to which mothers' or caretakers' recall was relied on. The proportion of children aged 12-23 months receiving all vaccinations was higher for males (52 per cent) than females (40 per cent).

Table 6.2 (CH.2): Vaccinations by background characteristics

Percentage of children aged 12-23 months currently vaccinated against childhood diseases, Isiolo district, Eastern Province, Kenya 2008

	Percentage of children who received:												
Characteristics	BCG	DPT 1	DPT 2	DPT 3	Polio 0	Polio 1	Polio 2	Polio 3	Measles	All	None	Per centage with health card	Number of children aged 12-23 months
Sex													
Male	88.8	79.2	75.3	69.8	64.9	88.2	82.8	70.8	62.2	51.8	10.0	74.6	104
Female	82.7	76.5	74.0	67.5	65.5	82.8	80.3	67.9	58.3	39.8	13.3	67.1	105
Mother's education													
None	82.0	75.7	73.2	65.5	58.3	82.9	78.7	66.6	54.9	40.0	14.5	67.9	148
Primary	(96.0)	(85.2)	(79.3)	(76.7)	(82.1)	(93.2)	(89.3)	(78.8)	(73.1)	(62.2)	(3.3)	(82.1)	49
Secondary +	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	12
Wealth index													
Low	87.7	82.1	79.5	70.6	63.5	86.3	83.7	69.1	54.8	41.8	10.2	75.1	120
Medium	(89.2)	(82.4)	(78.7)	(75.6)	(51.7)	(95.0)	(91.4)	(83.5)	(83.4)	(61.8)	(2.6)	(68.1)	30
High	80.0	66.7	62.5	61.0	75.7	78.8	72.0	62.4	59.5	45.6	19.5	63.2	58
Total	**85.7**	**77.8**	**74.7**	**68.6**	**65.2**	**85.5**	**81.6**	**69.3**	**60.2**	**45.8**	**11.7**	**70.8**	**209**

Note: The calculation is the same as the top panel of Table 6.1 (i.e., the child's age at vaccination is not taken into account). Children who were vaccinated at any time before the survey are included in the numerator.

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Figures in parentheses (e.g. (10.5)) are based on 25-49 unweighted cases.

6.2 Tetanus Toxoid

One of the MDGs seeks to reduce by three quarters the maternal mortality ratio (MMR), with one strategy being to eliminate maternal tetanus. While another goal seeks to reduce the incidence of neonatal tetanus to less than one case per 1,000 live births in every district. A World Fit for Children (WFFC) goal was to eliminate maternal and neonatal tetanus by 2005.

Prevention of maternal and neonatal tetanus requires that all pregnant women receive at least two doses of tetanus toxoid vaccine. However, if women have not received two doses of the vaccine during pregnancy, they (and their newborn) would be considered protected if the following conditions are met:

- Received at least two doses of tetanus toxoid vaccine, the last within the previous three years;
- Received at least three doses, the last within the previous five years;
- Received at least four doses, the last within 10 years;
- Received at least five doses during lifetime.

Table 6.3 (CH.3) shows the protection status from tetanus of women who had a live birth within the 12 months prior to the survey. Fifty-eight per cent of the women received the required two doses during pregnancy, with the proportions increasing with increasing levels of wealth index and education levels of the mothers. About 62 per cent of women who gave birth in the 12 months preceding the survey had adequate protection. Women aged 35-49 years had the lowest proportion of those protected (47 per cent), while the other age groups had at least 60 per cent coverage or protection. The proportion receiving tetanus protection increased with increasing levels of household wealth index.

Table 6.3 (CH.3): Neonatal tetanus protection

Percentage of mothers with a birth in the last 12 months protected against neonatal tetanus, Isiolo district, Eastern Province, Kenya 2008

	Percentage of mothers with a birth in the last 12 months who:						
Characteristics	Received at least 2 doses during last pregnancy	Received at least 2 doses, the last within prior 3 years	Received at least 3 doses, last within prior 5 years	Received at least 4 doses, last within prior 10 years	Received at least 5 doses during lifetime	Protected against tetanus*	Number of mothers
Age							
15-19	68.2	1.8	0.0	0.0	0.0	70.1	46
20.-24	55.5	5.3	0.0	0.0	0.0	60.8	114
25-29	63.9	0.5	0.0	0.0	0.0	64.4	80
30-34	59.5	7.6	0.0	0.0	0.0	67.0	67
35-49	42.6	4.7	0.0	0.0	0.0	47.4	59
Education							
None	50.5	4.2	0.0	0.0	0.0	54.7	231
Primary	67.5	4.4	0.0	0.0	0.0	71.9	110
Secondary +	(78.3)	(2.5)	(0.0)	(0.0)	(0.0)	(80.7)	24
Non-standard Curriculum	(*)	(*)	(*)	(*)	(*)	(*)	1
Wealth index							
Low	49.2	3.9	0.0	0.0	0.0	53.1	218
Medium	57.1	7.6	0.0	0.0	0.0	64.7	51
High	76.5	2.9	0.0	0.0	0.0	79.4	97
Total	**57.6**	**4.1**	**0.0**	**0.0**	**0.0**	**61.7**	**366**

***MICS indicator 32**

Tetanus toxoid injections are given to women during pregnancy to protect infants from neonatal tetanus, a major cause of infant death that is due primarily to unsanitary conditions during childbirth. Two doses of tetanus toxoid during pregnancy offer full protection. However, if a woman was vaccinated during a previous pregnancy, she may only need a booster to give full protection. Five doses are thought to provide lifetime protection.

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Figures in parentheses (e.g. (10.5)) are based on 25-49 unweighted cases.

6.3 Oral Rehydration Treatment

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

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

The indicators for reduction and management of diarrhoea are:

- Prevalence of diarrhoea
- Oral rehydration therapy (ORT)
- Home management of diarrhoea
- (ORT or increased fluids) ***AND*** continued feeding

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

The proportion of under five children who were reported as having experienced diarrhoea in the two weeks preceding the survey was about eight per cent (Table 6.4 (CH.4)). Diarrhoea prevalence peaks during the weaning period i.e., among children aged 6-23 months. Table 6.4 also shows the percentage of children who had diarrhoea in the two weeks preceding the survey, and who received various types of recommended liquids. Since mothers were able to name more than one type of liquid, the percentages do not necessarily add up to 100. About 42 per cent received fluids from ORS packets; 19 per cent received recommended homemade fluids, and about 15 per cent received pre-packaged ORS fluids. About half of the children with diarrhoea received one or more of the recommended home treatments (i.e., were treated with ORS or RHF), while about 50 per cent of all affected children received no treatment.

Table 6.4 (CH.4): Oral rehydration treatment

Percentage of children aged 0-59 months with diarrhoea in the last two weeks and treatment with oral rehydration solution (ORS) or other oral rehydration treatment (ORT), Isiolo district, Eastern Province, Kenya 2008

Characteristics	Had diarrhoea in last two weeks	Number of children aged 0-59 months	Children with diarrhoea who received:				ORT Use Rate*	Number of children aged 0-59 months with
			Fluid from ORS packet	Recom-mended homemade fluid	Pre-packaged ORS fluid	No treatment		
Sex								
Male	7.7	553	(*)	(*)	(*)	(*)	(*)	42
Female	7.8	519	(*)	(*)	(*)	(*)	(*)	40
Age								
<6 months	5.6	130	(*)	(*)	(*)	(*)	(*)	7
6-11 months	12.3	113	(*)	(*)	(*)	(*)	(*)	14
12-23 months	9.1	209	(*)	(*)	(*)	(*)	(*)	19
24-35 months	7.7	218	(*)	(*)	(*)	(*)	(*)	17
36-47 months	7.5	218	(*)	(*)	(*)	(*)	(*)	16
48-59 months	5.3	186	(*)	(*)	(*)	(*)	(*)	10
Mother's education								
None	7.8	690	39.2	15.7	13.4	53.7	46.3	54
Primary	8.2	297	(*)	(*)	(*)	(*)	(*)	24
Secondary +	5.4	83	(*)	(*)	(*)	(*)	(*)	4
Non-Standard Curriculum	(*)	2	(*)	(*)	(*)	(*)	(*)	0
			(*)	(*)	(*)	(*)	(*)	
Wealth index								
Low	7.1	617	(43.1)	(16.3)	(21.7)	(47.1)	(52.9)	43
Medium	9.8	174	(*)	(*)	(*)	(*)	(*)	17
High	8.0	282	(37.0)	(14.0)	(6.9)	(49.5)	(50.5)	22
Total	**7.7**	**1,072**	**41.6**	**18.8**	**14.8**	**49.6**	**50.4**	**83**

***MICS indicator 33**

Note: The percents receiving various treatments will not add to 100 since some children may have received more than one type of treatment. The ORT use rate includes those who received oral rehydration salts from a packet or any appropriate household solution or pre-packaged ORS fluid.

NS: Based on less than 25 un-weighted cases, hence not shown.

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Figures in parentheses (e.g. (10.5)) are based on 25-49 unweighted cases.

Table 6.5 (CH.5) presents the percentage of under five children who had diarrhoea during the two weeks preceding the survey and took increased fluids and continued to feed during the episode, as recommended. The results indicate that 36 per cent drank more than usual while only one out of five children continued feeding as usual. Additionally, only 17 per cent of the children received increased fluids and at the same time continued feeding. Nearly, 80 per cent of the children ate much less or none at all. Twelve of the cases employed home management strategies for the condition while 17 per cent used ORT alongside fluids and continued eating.

Table 6.5 (CH.5): Home management of diarrhea

Percentage of children aged 0-59 months with diarrhoea in the last two weeks who took increased fluids and continued to feed during the episode, Isiolo district, Eastern Province, Kenya 2008

Characteristics	Had diarrhoea in last two weeks	Number of children aged 0-59 months	Children with diarrhoea who: Drank more	Drank the same or less	Ate somewhat less, same or more	Ate much less or none	Home manage-ment of diarrhea*	Received ORT or increased fluids AND continued feeding **	Number of children aged 0-59 months with diarrhoea
Sex									
Male	7.7	553	(38.0)	(62.0)	(21.8)	(78.2)	(15.2)	(21.0)	42
Female	7.8	519	(34.4)	(65.6)	(19.0)	(81.0)	(9.1)	(13.3)	40
Age									
0-11 months	8.9	221	(*)	(*)	(*)	(*)	(*)	(*)	20
12-23 months	8.8	218	(*)	(*)	(*)	(*)	(*)	(*)	19
24-35 months	7.8	220	(*)	(*)	(*)	(*)	(*)	(*)	17
36-47 months	7.5	208	(*)	(*)	(*)	(*)	(*)	(*)	16
48-59 months	5.5	204	(*)	(*)	(*)	(*)	(*)	(*)	11
Mother's education									
None	7.8	690	25.8	74.2	12.7	87.3	5.0	9.1	54
Primary	8.2	297	(*)	(*)	(*)	(*)	(*)	(*)	24
Secondary +	5.4	83	(*)	(*)	(*)	(*)	(*)	(*)	4
Non-standard curriculum	(*)	2	(*)	(*)	(*)	(*)	(*)	(*)	0
Wealth index									
Low	7.1	617	(34.7)	(65.3)	(16.0)	(84.0)	(3.7)	(11.5)	43
Medium	9.8	174	(*)	(*)	(*)	(*)	(*)	(*)	17
High	8.0	282	(49.7)	(50.3)	(24.1)	(75.9)	(21.2)	(21.2)	22
Total	**7.7**	**1,072**	**36.2**	**63.8**	**20.4**	**79.6**	**12.2**	**17.3**	**83**

***MICS indicator 34**

****MICS indicator 35**

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Figures in parentheses (e.g. (10.5)) are based on 25-49 unweighted cases.

6.4 Care Seeking and Antibiotic Treatment of Pneumonia

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

Children with suspected pneumonia are those who had a cough accompanied by rapid or difficult breathing, and whose symptoms were not due to a problem in the chest or a blocked nose. The indicators are:

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

Table 6.6 (CH.6) presents the prevalence of suspected pneumonia and where care was sought outside the home. About eight per cent of children aged 0-59 months were reported to have had symptoms of pneumonia during the two weeks preceding the survey. This proportion did not vary much by sex of the child, and only minimal variations in the proportions were observed by household wealth index or mothers level of education. Among children with pneumonia symptoms, 66 per cent were taken to an appropriate health service provider. Among those taken to a health service provider, 61 per cent were taken to a government health facility or service was provided by a government health worker, while 11 per cent received services from a private facility. Analyses of differentials in the treatment pattern by different child characteristics were not done due to the small numbers observed. However, the results show that even though there was no gender differences in the proportions of those who were ill, marginal differences in the proportion of female children taken to an appropriate health service provider versus male children was observed i.e., 73 per cent against 60 per cent, respectively.

Table 6.6 (CH.6): Care seeking for suspected pneumonia

Percent of children aged 0-59 months with suspected pneumonia in the last two weeks taken to a health provider, [District], Eastern Province, Kenya 2008

			Children with suspected pneumonia who were taken to:												
			Public sources				Private sources				Other source				
Characteristics	Had acute respiratory infection[1]	Number of children aged 0-59 months	Govt. Hospital	Govt. health centre	Govt. health post	Other public*	Private hospital/ clinic	Private physician	Pharmacy	Other private	Relative or friend	Shop	Trad. Practitioner	Any appropriate provider*	Number of children aged 0-59 months with suspected pneumonia
Sex															
Male	7.5	553	(30.4)	(20.7)	(3.3)	(0)	(8.2)	(0)	(0)	(0)	(0)	(0)	(0)	(60.3)	41
Female	7.8	519	(32.1)	(23.5)	(5.1)	(6.1)	(9.4)	(0)	(0)	(0)	(0)	(1.3)	(3.3)	(72.7)	41
Age															
0-11 months	6.1	221	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	13
12-23 months	10.0	218	(32.7)	(17.5)	(5.7)	(.0)	(7.7)	(.0)	(.0)	(.0)	(.0)	(.0)	(.0)	(63.5)	22
24-35 months	6.8	220	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	15
36-47 months	8.3	208	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	17
48-59 months	7.2	204	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	15
Mother's education															
None	7.7	690	23.9	27.1	6.5	4.7	2.8	.0	.0	.0	.0	.0	2.5	63.1	53
Primary	8.1	297	(46.2)	(12.6)	(.0)	(.0)	(12.3)	(.0)	(.0)	(.0)	(.0)	(2.1)	(.0)	(68.9)	24
Secondary +	6.0	83	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	5
Wealth index															
Low	8.4	617	(26.6)	(22)	(6.6)	(4.8)	(.0)	(.0)	(.0)	(.0)	(.0)	(.0)	(2.6)	(60.0)	52
Medium	6.6	174	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	11
High	6.7	282	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	19
Total	**7.7**	**1,072**	**31.3**	**22.1**	**4.2**	**3**	**8.8**	**0**	**0**	**1.9**	**0**	**0.6**	**1.6**	**66.4**	**82**

***MICS indicator 23**

* Includes village health worker or mobile/outreach clinic.

Note: The percents taken to various providers will not add to 100 since some children may have been taken to see more than one type of provider.

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figure in parenthesis (e.g. 10.5) are based on the 25-49 unweighted cases.

Table 6.7 presents the use of antibiotics for the treatment of suspected pneumonia among children under five by sex, age, and socioeconomic factors. Results show that slightly more than half of under-five children with suspected pneumonia received an antibiotic during the two weeks prior to the survey. With respect to antibiotic treatment by background characteristics, again due to small numbers the pattern could not be fully assessed by household wealth index, age and mothers level of education.

Table 6.7 (CH.7): Antibiotic treatment of pneumonia

Percentage of children aged 0-59 months with suspected pneumonia who received antibiotic treatment, Isiolo district, Eastern Province, Kenya 2008

	Percentage of children aged 0-59 months with suspected pneumonia who received antibiotics in the last two weeks*	Number of children aged 0-59 months with suspected pneumonia in the two weeks prior to the survey
Sex		
Male	(48.7)	41
Female	(57.9)	41
Age		
0-11 months	(*)	13
12-23 months	(52.7)	22
24-35 months	(*)	15
36-47 months	(*)	17
48-59 months	(*)	15
Mother's education		
None	50.9	53
Primary	(57.9)	24
Secondary +	(*)	5
Wealth index		
Low	49.7	52
Medium	(*)	11
High	(*)	19
Total	**53.2**	**82**

***MICS indicator 22**

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figure in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

Issues related to knowledge of the danger signs of pneumonia are presented in Table 6.8 (CH.7A). Mothers' knowledge of these signs is an important determinant of care-seeking behaviour. Only 15 per cent of women know of the two danger signs of pneumonia that is fast and difficult breathing. The proportion who know the two danger signs is comparable by levels of household wealth index. The most commonly identified symptom for taking a child to a health facility by the mother/caretaker is developing a fever (77 per cent of the cases). The proportion of mothers/caretakers who identified difficult breathing and fast breathing as symptoms for taking children immediately to a health care provider was 27 and 22 per cent, respectively. One out of every three mothers/caretakers thought that poor drinking was a sign of danger.

Table 6.8 (CH.7A): Knowledge of the two danger signs of pneumonia

Percentage of mothers/caretakers of children aged 0-59 months by knowledge of types of symptoms for taking a child immediately to a health facility, and percent of mothers/caretakers who recognize fast and difficult breathing as signs for seeking care immediately, Isiolo district, Eastern Province, Kenya 2008

	Percentage of mothers/caretakers of children aged 0-59 months who think that a child should be taken immediately to a health facility if the child:								Mothers/ caretakers who recognize the two danger signs of pneumonia*	Number of mothers/ caretakers of children aged 0-59 months
	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		
Mother's education										
None	25.8	61.0	75.4	22.1	28.0	15.5	26.1	15.5	15.7	690
Primary	35.6	57.6	78.9	24.7	26.8	16.6	36.2	15.5	15.7	297
Secondary +	25.5	56.5	80.0	11.9	23.0	11.3	42.8	17.9	8.8	83
Non-standard curriculum	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	2
Wealth index										
Low	30.8	65.7	75.5	23.9	25.7	16.8	27.5	13.4	15.7	617
Medium	28.2	60.6	74.3	20.9	28.5	17.8	32.6	20.4	13.7	174
High	23.4	45.9	80.7	18.6	29.7	11.0	34.5	18.0	14.8	282
Total	**28.4**	**59.7**	**76.7**	**22.0**	**27.2**	**15.5**	**30.1**	**15.8**	**15.1**	**1,072**

* Percentage of mothers/caretakers who state fast AND difficult breathing as signs for taking a child to a health facility immediately

Note: (1) The percentages will not add to 100 since some mothers/caretakers may have indicated more than one symptom; (2) An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed; and (3) Figures in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

6.5 Solid Fuel Use

More than three billion people around the world rely on solid fuels (biomass and coal) for their basic energy needs, including cooking and heating. Cooking and heating with solid fuels leads to high levels of indoor smoke, a complex mix of health-damaging pollutants. The main problem with the use of solid fuels is its production of incomplete combustion, including carbon monoxide (CO), polyaromatic hydrocarbons, sulphur dioxide (SO_2), and other toxic elements. Use of solid fuels increases the risks of acute respiratory illness, pneumonia, chronic obstructive lung disease, cancer, and possibly tuberculosis, low birth weight, cataracts, and asthma. The primary indicator is the proportion of the population using solid fuels as the primary source of domestic energy for cooking.

The use of solid fuels for cooking is near universal in the district, with 95 per cent of the households reportedly using them (Table 6.9 (CH.8)). The proportion using solid fuels for cooking is lowest among households from the high wealth index at 86 per cent. The proportion of households using solid fuels remain comparable across levels of education of the household head. The table also shows that use of wood and charcoal for cooking purposes accounts for the highest use of solid fuels.

Table 6.9 (CH.8): Solid fuel use

Percentage distribution of households according to type of cooking fuel, and percent of households using solid fuels for cooking, Isiolo district, Eastern Province, Kenya 2008

Characteristic	Percentage of households using: Liquified Petroleum Gas (LPG)	Electricity	Kerosene	Charcoal	Wood	Natural Gas	Other source	Total	Solid fuels for cooking*	Number of house-holds
Education of household head										
None	1.7	0.7	0.0	14.1	83.5	0.0	0.0	100.0	97.6	624
Primary	0.9	0.0	3.3	38.5	56.8	0.0	0.4	100.0	95.4	288
Secondary +	2.2	0.0	9.3	60.0	26.4	2.0	0.0	100.0	86.4	172
Non-standard curriculum	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	3
Wealth index										
Low	0.0	0.0	0.0	2.1	97.9	0.0	0.0	100.0	100.0	544
Medium	0.0	0.0	0.0	8.0	92.0	0.0	0.0	100.0	100.0	169
High	4.7	1.2	6.8	74.2	11.9	0.9	0.3	100.0	86.1	374
Total	**1.6**	**0.4**	**2.3**	**27.8**	**67.4**	**0.3**	**0.1**	**100.0**	**95.2**	**1087**

***MICS indicator 24; MDG indicator 29**

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed

6.6 Malaria

Malaria is one of the leading causes of death of children under age five in Kenya. It also contributes to anaemia in children and is a common cause of school absenteeism. Preventive measures, especially the use of Insecticide Treated Nets (ITN), can dramatically reduce malaria infection and hence mortality rates among children. In areas where malaria is common, international recommendations suggest treating any fever in children as if it were malaria, and immediately giving the child a full course of recommended anti-malarial tablets. Additionally, those children with severe malaria symptoms such as fever or convulsions, should be taken to a health facility. Also, children recovering from malaria should be given extra liquids and food, and for younger children, they should continue breastfeeding.

The questionnaire incorporates questions on the availability and use of bed nets both at household level and among children under five years of age, as well as anti-malarial treatment, and intermittent preventive therapy (IPT) for malaria among pregnant women. The survey results indicate that 55 per cent of households have at least one ITN (Table 6.10 (CH.10). One out of three households reported having two or more mosquito nets. The mean number of nets per households in the district is two. The use of mosquito nets increases with the educational level of the head of the household as well as by the household wealth index. For example, 47 per cent of the households headed by a member with no education has a mosquito net compared with 79 per cent for households headed by a member with secondary or above level of education. Thirty six per cent of households in the low wealth category had at least one ITN compared to 78 per cent for the high wealth index category (see Figure 6.2).

Table 6.10 (CH.10): Availability of insecticide treated nets

Percentage of households with at least one insecticide treated net (ITN), Isiolo district, Eastern Province, Kenya 2008

Characteristics	Percentage of households with at least one mosquito net	Percentage of households with two or more mosquito nets	Percentage of households with at least one insecticide treated net (ITN)*	Mean number of mosquito nets per household	Number of households
Education of household head					
None	47.1	26.6	45.9	1.9	640
Primary	58.7	29.8	57.1	1.8	281
Secondary +	79.2	42.7	76.6	1.9	163
Non-standard Curriculum	(*)	(*)	(*)	(*)	3
Wealth index					
Low	36.5	13.3	35.8	1.4	546
Medium	59.5	36.6	54.6	1.9	166
High	79.4	51.2	78.3	2.2	373
Total	**54.8**	**29.9**	**53.3**	**1.9**	**1086**

***MICS indicator 36**

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

Figure 6.2: Percentage of households with at least one treated mosquito net

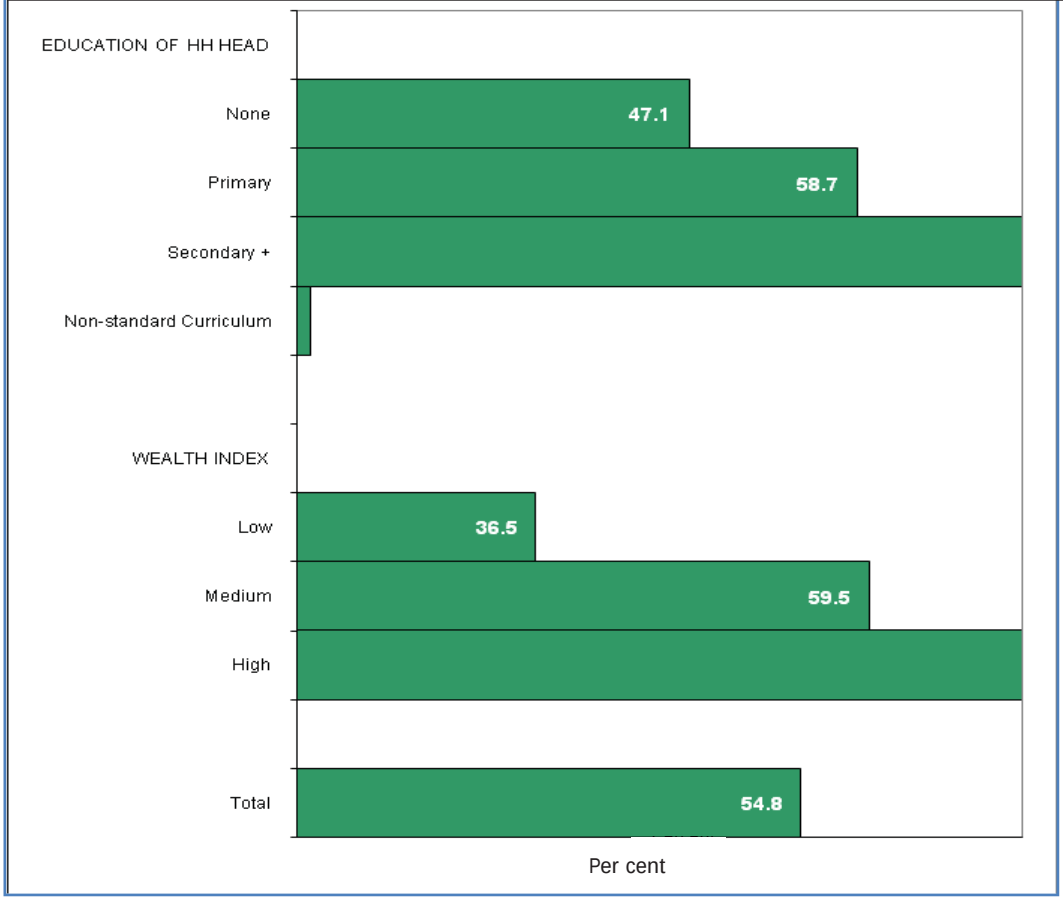


Table 6.11 (CH.11) shows that 49 per cent of children under age five slept under a bed net the night before the survey. A similar proportion of children also slept under an ITN. In both instances, the proportion of males and females sleeping under a bed remained very comparable. The proportion of children sleeping under bednets clearly increases with increasing levels of the household wealth index. For example, while 37 per cent of children from the low wealth index household slept under an ITN bednet, the corresponding figure was 69 per cent for those from high wealth index households.

Table 6.11 (CH.11): Children sleeping under bed nets

Percentage of children aged 0-59 months who slept under an insecticide treated net during the previous night, Isiolo district, Eastern Province, Kenya 2008

Characteristics	Percentage of children who: Slept under a bed net*	Slept under an insecticide treated net**	Slept under an untreated net	Slept under a net but don't know if treated	Don't know if slept under a net	Did not sleep under a bed net	Number of children aged 0-59 months
Sex							
Male	50.7	50.3	0.4	0.0	0.0	49.3	553
Female	47.6	47.1	0.5	0.0	0.3	52.2	519
Age							
0-11 months	54.1	53.7	0.4	0.0	0.0	45.9	221
12-23 months	52.1	52.1	0.0	0.0	0.3	47.5	218
24-35 months	47.2	46.7	0.5	0.0	0.0	52.8	220
36-47 months	43.0	42.1	1.0	0.0	0.3	56.6	208
48-59 months	49.2	48.8	0.4	0.0	0.0	50.8	204
Wealth index							
Low	36.9	36.8	0.1	0.0	0.2	62.9	617
Medium	60.2	58.9	1.4	0.0	0.0	39.8	174
High	69.4	68.8	0.6	0.0	0.0	30.6	282
Total	**49.2**	**48.7**	**0.5**	**0.0**	**0.1**	**50.7**	**1,072**

***MICS indicator 38**

****MICS indicator 37; MDG indicator 22**

Questions were asked for all children under age five who had a fever in the two weeks prior to the survey, and received anti-malarial drugs. Table 6.12 (CH.12) presents the results which show that about 12 per cent of under five children had been ill with a fever in the two weeks prior to the survey, and that fever prevalence increased with age and peaked at 36-47 months (16 per cent). Prevalence of fever was about the same for both female and male children, but was surprisingly higher in wealthier households.

Information was also sought from mothers about all 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. Slightly over half (52 per cent) of children with fever in the last two weeks were treated with an "appropriate" anti-malarial drug and 43 per cent received anti-malarial drugs within 24 hours of onset of symptoms. The proportion of children receiving an appropriate anti-malarial drug and within 24 hours of onset of symptoms was higher for those with mothers having a higher education and those from high wealth index households.

Table 6.12 (CH.12): Treatment of children with anti-malarial drugs

Percentage of children aged 0-59 months who were ill with fever in the last two weeks who received anti-malarial drugs, Isiolo district, Eastern Province, Kenya 2008

Characteristics	Had a fever in last two weeks	Number of children aged 0-59 months	Children with a fever in the last two weeks who were treated with: Anti-malarials: SP/ Fansidar	Chloro-quine	Amodia-quine	Qui-nine	Artemis-inin based combin-ations	Other anti-malarial	Any approp-riate anti-malaria l drug	Other medications: Paracet-amol/ Panadol/ Acetamin-ophen	Aspirin	Ibu-profen	Other	Don't know	Any appropriate anti-malarial drug within 24 hours of onset of symptoms*	Number of children with fever in last two weeks
Sex																
Male	12.2	553	18.1	2.2	22.3	0.0	10.2	7.3	57.5	51.4	4.8	1.6	8.1	1.3	49.5	67
Female	12.3	519	14.4	3.7	23.5	2.3	7.4	1.3	45.8	40.4	0.5	2.9	14.5	0.0	36.3	64
Age																
0-11 months	10	221	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	22
12-23 months	10.9	218	(9.2)	(0.0)	(27.8)	(6.2)	(13.8)	(3.2)	(51.8)	(51.2)	(0.0)	(0.0)	(5.7)	(0.0)	(41.9)	24
24-35 months	10.3	220	(18.4)	(5.2)	(25.7)	(0.0)	(10.5)	(8.3)	(63.0)	(51.5)	(0.0)	(8.3)	(801)	(0.0)	(57.3)	23
36-47 months	15.7	208	(16.6)	(4.5)	(22.9)	(0.0)	(3.3)	(6.9)	(54.2)	(53.8)	(4.7)	(3.3)	(13.2)	(0.0)	(46.3)	33
48-59 months	14.7	204	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	30
Mother's education																
None	11.4	690	15.2	3.0	24.4	.0	9.4	2.9	49.7	40.0	4.5	3.8	11.1	1.1	37.9	79
Primary	14.3	297	(21.0)	(3.5)	(19.1)	(3.4)	(5.1)	(6.0)	(53.6)	(52.8)	(.0)	(.0)	(10.2)	(.0)	(48.6)	43
Secondary +	10.7	83	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	9
Non-standard Curriculum	(*)	2	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	1
Wealth index																
Low	11.5	617	11.2	3.3	24.2	0.0	10.0	1.7	44.2	35.5	1.7	3.1	6.4	1.2	36.4	71
Medium	10.9	174	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	19
High	14.7	282	24.8	3.5	18.4	3.5	7.3	9.0	62.5	56.7	0.8	1.9	19.5	0.0	53.4	41
Total	**12.3**	**1,072**	**16.3**	**2.9**	**22.9**	**1.1**	**8.8**	**4.4**	**51.8**	**46.0**	**2.7**	**2.3**	**11.3**	**0.6**	**43.1**	**131**

***MICS indicator 39; MDG indicator 22**

* The percents given various drugs will not add to 100 since some children may have been given more than one type of drug.

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

"Appropriate" anti-malarial drugs include SP/fansidar, chloroquine, amodiaquine, quinine, artemisnin combination drugs, etc. Sixteen per cent of children with fever were given SP/fansidar and 23 per cent received Amodiaquine. Only nine per cent received artemisinin combination therapy, Kenya's currently recommended choice of anti-malarial. There are some differences in the proportions receiving an appropriate anti-malarial drug between male and female children. About 50 per cent of male children were treated with an "appropriate" anti-malarial drug within 24 hours of onset of symptoms versus only 36 per cent for females. The gender differences in treatments are also evident in the 58 per cent of male children who were treated with any appropriate anti-malarial drug versus 46 per cent for female children. Pregnant women living in places where malaria is highly prevalent are four times more likely than other adults to get malaria and twice as likely to die from the disease. Once infected, pregnant women risk anemia, premature delivery and stillbirth. Their babies are likely to be of low birth weight, which makes them unlikely to survive their first year of life. For this reason, steps are taken to protect pregnant women by distributing ITNs and drugs that prevent malaria infection (through the IPT strategy). In the survey, women were asked of the medicines they had received in their last pregnancy during the two years preceding the survey. Women are considered to have received IPT if they had received at least two doses of SP/Fansidar during pregnancy.

IPT use for malaria in pregnant women who gave birth in the two years preceding the survey is presented in Table 6.13 (CH.13). About half (49 per cent) of mothers who delivered a child during the two year period preceding the survey received medicine to prevent malaria during pregnancy. One in four (25 per cent) received SP/Fansidar only once and slightly less than one in five (19 per cent) received the same two or more times. About 41 per cent of mothers with no education received medicine to prevent malaria during pregnancy compared to 57 per cent among those who had primary level education. The proportion of mothers using the IPT strategy increased with increasing levels of household wealth index.

Table 6.13 (CH.13): Intermittent preventive treatment for malaria

Percentage of women aged 15-49 years who gave birth during the two years preceding the survey who received intermittent preventive therapy (IPT) for malaria during pregnancy, Isiolo district, Eastern Province, Kenya 2008

	Percentage of pregnant women who took:						
Characteristics	Medicine to prevent malaria during pregnancy	SP/Fansidar only one time	SP/Fansidar two or more times*	Chloroquine	Other medicines	Don't know	Number of women who gave birth in prior two years
Education							
None	41.1	19.6	16.4	2.3	2.4	.5	231
Primary	57.0	34.8	17.3	.9	4.0	.0	110
Secondary +	(83.0)	(30.8)	(46.8)	(.0)	(5.3)	(.0)	24
Non-standard Curriculum	(*)	(*)	(*)	(*)	(*)	(*)	1
Wealth index							
Low	40.0	19.1	15.1	2.9	2.5	0.5	218
Medium	51.8	28.8	17.5	0.0	5.5	0.0	51
High	67.0	36.6	27.3	0.0	3.0	0.0	97
Total	**48.8**	**25.1**	**18.7**	**1.7**	**3.0**	**0.3**	**366**

***MICS indicator 40**

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Figures in parentheses (e.g. (10.5)) are based on 25-49 unweighted cases.

7.1 Water

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

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

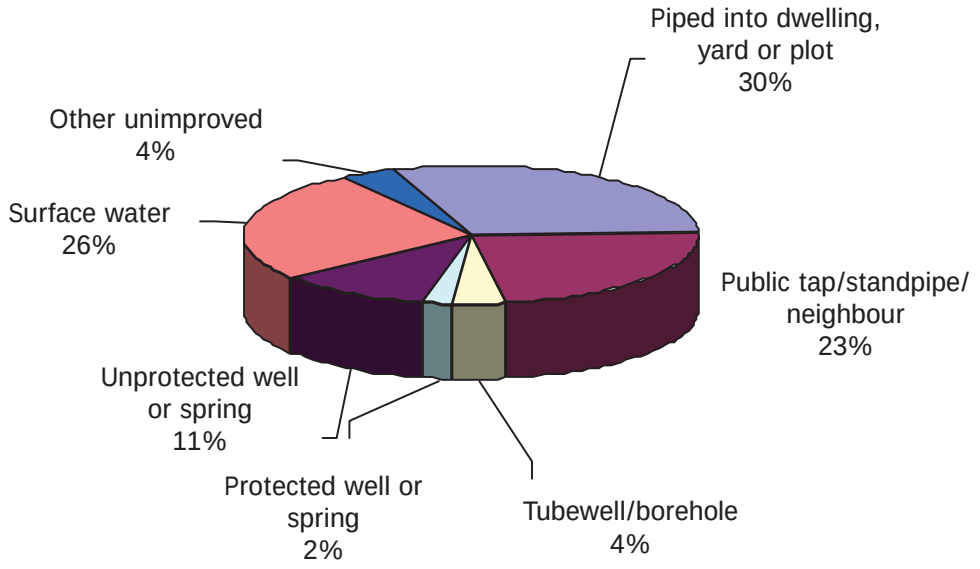
The following indicators were used in MICS to assess the water and sanitation situation.

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

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

The population using *improved sources* of drinking water are those using any of the following types of supply: piped water (into dwelling, yard or plot), public tap/ standpipe, tube-well/ borehole, protected well, protected spring, rainwater collection. Bottled water is considered as an improved water source only if the household is using an improved water source for other purposes, such as hand washing and cooking. The distribution of the population by source of drinking water is shown in Table 7.1 (EN.1) and Figure 7.1 (EN.1).

Figure 7.1: Percentage distribution of household members by source of drinking water



About 59 per cent of the population is using an improved source of drinking water. The proportion of the population using an improved source increases with increasing levels of educational attainment of the household head as well as with increasing levels of household wealth index. For example, only 34 per cent of the population living in low wealth index households use drinking water from improved sources compared to nearly 96 per cent for high wealth index households. The most popular improved source is piped water into the yard which is used by 24 per cent of the households. Among the 40 per cent that have no access to an improved water source, surface water is their most common source (26 per cent).

Table 7.1 (EN.1): Use of improved water sources

Percentage distribution of household population according to main source of drinking water and percent of household population using improved drinking water sources, Isiolo district, Eastern Province, Kenya 2008

	Main source of drinking water														
	Improved sources							Unimproved sources							
Characteristics	Piped into dwelling	Piped into yard/ plot	Public tap/ stand-pipe	Piped water from neigh-bour	Tube-well/ bore-hole	Pro-tected well	Prote-cted spring	Unpro-tected well	Unpro-tected spring	Cart with tank/ drum	Surface water	Other	Total	Improved source of drinking water*	Number of household members
Education of household head															
None	4.8	14.5	14.0	11.7	3.4	1.2	0.7	12.0	0.3	4.6	32.0	0.6	100.0	50.6	3160
Primary	5.2	35.2	11.4	7.7	2.1	1.6	0.4	10.5	0.0	2.0	20.6	0.5	100.0	66.4	1235
Secondary +	16.5	50.8	8.4	8.8	1.3	0.7	0.3	4.6	0.0	0.0	7.4	0.5	100.0	87.5	588
Non-standard Curriculum	(0.0)	(44.7)	(0.0)	(0.0)	(0.0)	(44.5)	(0.0)	(10.8)	(0.0)	(0.0)	(0.0)	(0.0)	(100.0)	(89.2)	25
Wealth index															
Low	0.4	1.3	13.8	9.3	4.5	2.5	1.0	16.5	0.2	4.9	43.5	0.7	100.0	34.2	2725
Medium	2.9	26.1	24.7	20.6	1.5	0.0	0.0	9.3	0.4	2.3	11.1	0.5	100.0	76.4	854
High	19.3	66.0	3.0	6.2	0.5	0.3	0.0	0.7	0.0	1.1	2.0	0.2	100.0	96.1	1428
Total	**6.2**	**24.0**	**12.6**	**10.3**	**2.8**	**1.4**	**0.6**	**10.8**	**0.2**	**3.4**	**26.1**	**0.5**	**100.0**	**59.0**	**5008**

***MICS indicator 11; MDG indicator 30**

NOTE: Figures in parentheses (e.g. (10.5)) are based on 25-49 unweighted cases.

Households were asked of ways they use to treat water at home to make it safer to drink. The following approaches were considered as proper treatment of drinking water; boiling, adding bleach or chlorine, using a water filter, and using solar disinfection. The use of in-house water treatment is summarised in Table 7.2 (EN.2). Nearly one out of ten persons (12 per cent) use an appropriate water treatment method. Eighty eight per cent of the households reported that they did not treat their water irrespective of the source. Seven per cent of the households reported that they boiled their water, and six per cent added chlorine or bleach. Among those using drinking water from unimproved sources, close to eight per cent use an appropriate water treatment, and among those using drinking water from improved sources, close to 17 per cent use an appropriate water treatment method.

Table 7.2 (EN.2): Household water treatment

Percentage distribution of household population according to drinking water treatment method used in the household, and percent of household population that applied an appropriate water treatment method, Isiolo district, Eastern Province, Kenya 2008

	Water treatment method used in the household							All drinking water sources		Improved drinking water sources		Unimproved drinking water sources	
Characteristics	None	Boil	Add bleach/ chlorine	Strain through a cloth	Use water filter	Let it stand and settle	Other	Appropriate water treatment method	Number of household members	Appropriate water treatment method*	Number of household members	Appropriate water treatment method:	Number of household members
Education of household head													
None	90.3	5.4	4.5	0.0	0.0	0.6	0.0	9.1	3,160	13.7	1,230	6.3	1,930
Primary	88.1	4.6	7.7	0.0	0.2	0.0	0.0	11.9	1,235	15.5	725	6.9	510
Secondary +	72.4	20.5	11.7	0.0	0.0	0.0	0.0	27.6	588	27.1	463	29.7	125
Non-standard	(100.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	25	(*)	22	(*)	3
Wealth index													
Low	95.7	1.6	2.7	0.0	0.0	0.0	0.0	4.3	2,725	5.6	680	3.8	2,046
Medium	84.9	6.5	8.0	0.0	0.0	2.2	0.0	12.8	854	9.5	476	17.0	378
High	74.0	17.3	11.5	0.0	0.2	0.0	0.0	26.0	1,428	25.1	1,284	34.9	144
Total	**87.7**	**6.9**	**6.1**	**0.0**	**0.0**	**0.4**	**0.0**	**11.9**	**5,008**	**16.6**	**2,440**	**7.5**	**2,567**

***MICS indicator 13**

Note: (1) Multiple response categories may be used meaning responses may total more than 100 per cent; (2)

An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

The amount of time it takes to obtain water is presented in Table 7.3 (EN.3). The time refers to one roundtrip from home to a drinking water source and back. However, information on the number of trips made in one day was not collected.

The table shows that 35 per cent of households had their drinking water source on their premises. For eleven per cent of all households, it takes less than 15 minutes to get to the water source and back. Eight per cent spend 15-30 minutes and 13 per cent spend 30-60 minutes, while the remaining 32 per cent spend more than one hour. Excluding those households with water on the premises, the average time to the source to bring drinking water is 98 minutes. There are real differences in the time taken to fetch water by household wealth index. For example, the average time taken to fetch water among high wealth index households is 50 minutes compared to nearly double the time (111 minutes) among low wealth index households. A similar pattern is observed by household head educational attainment. While households with very highly educated household heads take an average of 64 minutes, households headed by members with no education take an average of 103 minutes. The above observation is well corroborated by the fact that a significant proportion of households from the high wealth index (87 per cent) as well as those with highly educated household heads have water facilities within their premises.

Table 7.3 (EN.3): Time to source of water

Percentage distribution of households according to time to go to source of drinking water, get water and return, and mean time to source of drinking water, Isiolo district, Eastern Province, Kenya 2008

	Time to source of drinking water								
Characteristics	Water on premises	Less than 15 minutes	15 minutes to less than 30 minutes	30 minutes to less than 1 hour	1 hour or more	Don't know	Total	Mean time to source of drinking water*	Number of households
Education of household head									
None	20.5	11.7	9.0	17.2	41.6	0.0	100	102.7	624
Primary	44.6	12.2	9.0	9.1	25.1	0.0	100	91.9	288
Secondary +	70.5	9.4	3.2	5.8	11.1	0.0	100	63.8	172
Non-standard Curriculum	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	3
Wealth index									
Low	1.5	16.0	9.5	19.1	53.8	0.0	100	111.4	544
Medium	27.3	13.1	13.8	17.5	28.3	0.0	100	61.4	169
High	86.7	4.0	3.3	3.0	3.0	0.0	100	50.1	374
Total	**34.8**	**11.4**	**8.1**	**13.3**	**32.4**	**0.0**	**100**	**98.4**	**1087**

NOTE: (1) *The mean time to source of drinking water is calculated based on those households that do not have water on the premises; (2) An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed; and (3) Figures in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

Data on the person who usually collect water is presented in Table 7.4 (EN.4). In majority of the households (61 per cent), the responsibility for fetching water falls on adult women. The burden of water fetching on adult women is more among households that are poor (low wealth index households) and those where the household head is not educated. In Isiolo district, adult men and children aged less than 15 years collect water only in very few cases.

Table 7.4 (EN.4): Person collecting water

Percentage distribution of households according to the person collecting drinking water used in the household, Isiolo district, Eastern Province, Kenya 2008

Characteristics	Person collecting drinking water*								Number of households
	Adult woman	Adult man	Female child under age 15	Male child under age	Adult woman and child	Adult man and child	Adult man and woman	Don't know	
Education of household head									
None	76.2	6.1	9.3	3.8	9.9	1.3	4.6	0.0	624
Primary	52.6	4.7	4.9	1.6	6.1	0.5	1.8	0.0	288
Secondary +	21.6	7.9	3.9	1.4	1.7	1.7	0.9	0.0	172
Non-standard Curriculum	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	3
Wealth index									
Low	93.7	7.1	10.5	4.2	11.0	1.7	4.5	0.0	544
Medium	68.8	9.0	10.5	2.7	10.9	0.8	5.1	0.0	169
High	10.8	3.3	1.1	0.8	1.1	0.4	0.9	0.0	374
Total	**61.3**	**6.1**	**7.3**	**2.8**	**7.6**	**1.1**	**3.4**	**0.0**	**1087**

NOTE: (1) *Total per cent may add to more than 100.0 due to multiple responses; (2) An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed; and (3) Figures in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

7.2 Sanitation

Inadequate disposal of human excreta and personal hygiene is associated with a range of diseases including diarrhoeal diseases and polio. Improved sanitation facilities for excreta disposal include: flush or pour flush to a piped sewer system, septic tank or latrine; ventilated improved pit latrine, pit latrine with slab, and composting toilet.

Results on the use of sanitary facilities are displayed in Table 7.5 (EN.5). About four in ten persons live in households using improved sanitation facilities. The proportion of members using improved sanitation facilities is highest for households where the head is highly educated and for those categorised in the high wealth index. About half (47 per cent) of households have no facilities for excreta disposal and therefore use the bush or fields. The proportion of such households is highest for those from low wealth index (82 per cent) and those where the head of the household is not educated (58 per cent). A big proportion of households with toilets that flush into a sewer system or a septic tank are headed by someone who has attained at least a secondary education level.

Table 7.5 (EN.5): Use of sanitary means of excreta disposal

Percentage distribution of household population according to type of toilet facility used by the household, and the percent of household population using sanitary means of excreta disposal, Isiolo district, Eastern Province, Kenya 2008

Characteristics	Type of toilet facility used by household											
	Improved sanitation facility					Unimproved sanitation facility					Percent of population using sanitary means of excreta disposal*	Number of household members
	Flush/pour flush to:											
	Piped sewer system	Septic tank	Ventilated improved pit latrine	Pit latrine with slab	Compositing toilet	Pit latrine without slab/ open pit	Bucket	No facilities/ bush/field	Other	Total		
Education of household head												
None	3.2	1.3	20.1	8.1	0.4	8.4	0.0	58.0	0.1	100.0	33.4	3,160
Primary	4.8	1.0	23.0	12.2	1.0	19.5	0.0	37.2	0.0	100.0	43.3	1,235
Secondary +	21.0	4.7	20.5	22.3	0.3	15.7	0.6	11.6	0.0	100.0	72.2	588
Non-standard curriculum	(0.0)	(0.0)	(20.6)	(24.1)	(0.0)	(0.0)	(0.0)	(55.3)	(0.0)	(100.0)	(44.7)	25
Wealth index												
Low	0.0	0.0	10.8	2.7	0.3	4.1	0.0	81.9	0.1	100.0	13.9	2,,725
Medium	0.0	0.0	40.2	21.5	1.1	23.4	0.0	13.7	0.0	100.0	62.9	854
High	19.8	5.7	28.4	23.3	0.6	20.1	0.2	1.9	0.0	100.0	77.8	1428
Total	**5.7**	**1.6**	**20.9**	**10.9**	**0.5**	**12.0**	**0.1**	**47.4**	**0.1**	**100.0**	**40.5**	**5,008**

***MICS indicator 12; MDG 31**

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

Safe disposal of a child's faeces refers to disposal directly into a toilet, or by rinsing the stool into a toilet or latrine. Disposal of faeces of children aged 0-2 years is presented in Table 7.6 (EN.6). In 42 per cent of the cases, stool from children aged 0-2 years is disposed off safely with almost all of them reportedly putting the stool in the toilet/latrine. The proportion of safe disposal of child faeces is high for households or members from the high wealth index households, and also where the mother is more educated. For example, while 84 per cent of mothers or caretakers from high wealth index household dispose off child stool safely, only 18 per cent from the low wealth index household do the same.

Table 7.6 (EN.6): Disposal of child's faeces

Per cent distribution of children aged 0-2 years according to place of disposal of child's faeces, and the percent of children aged 0-2 years whose stools are disposed of safely, Isiolo district, Eastern Province, Kenya 2008

	Place of disposal of child's feaces										
Characteristics	Child used toilet	Put /rinsed into toilet or latrine	Put /rinsed into drain or ditch	Thrown into garbage	Buried	Left in the open	Other	Don't know/ missing	Total	Proportion of children whose stools are disposed *of safely	Number of children aged 0-2 years
Mother's education											
None	0.6	30.0	2.0	25.5	16.2	18.4	6.0	1.3	100.0	30.6	431
Primary	4.0	53.4	4.8	21.5	4.7	4.3	4.7	2.7	100.0	57.4	199
Secondary +	6.7	77.8	1.6	5.4	4.9	0.0	3.5	0.0	100.0	84.6	49
Non-standard Curriculum	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	1
Wealth index											
Low	0.4	17.6	1.8	34.3	17.5	20.0	6.8	1.6	100.0	18.0	389
Medium	0.5	59.6	1.6	14.0	10.2	6.0	6.0	2.1	100.0	60.1	109
High	6.4	77.4	5.8	3.7	1.2	2.1	2.1	1.4	100.0	83.8	183
Total	**2.0**	**40.4**	**2.8**	**22.8**	**12.0**	**12.9**	**5.4**	**1.6**	**100.0**	**42.4**	**680**

***MICS indicator 14**

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

The percentages of household members using improved sources of drinking water and sanitary means of excreta disposal is presented in Table 7.7 (EN.7). The results indicate that 43 per cent of households use improved sources of drinking water and sanitary means of excreta disposal, compared to 59 per cent who used an improved drinking water source, and 52 per cent who disposed off excreta safely. The use of the combination of improved water and safe excreta disposal increases with an increase in the educational level of the head of the household and the household's wealth index.

Table 7.7 (EN.7): Use of improved water sources and improved sanitation

Percentage of household population using both improved drinking water sources and sanitary means of excreta disposal, Isiolo district, Eastern Province, Kenya 2008

Characteristics	Percentage of household population: Using improved sources of drinking water*	Using sanitary means of excreta disposal**	Using improved sources of drinking water and using sanitary means of excreta disposal***	Number of household members
Education of household head				
None	50.6	41.6	32.6	3160
Primary	66.4	62.1	55.0	1235
Secondary +	87.5	85.1	76.9	588
Non-standard Curriculum	(89.2)	(44.7)	(44.7)	25
Wealth index				
Low	34.2	17.9	9.3	2725
Medium	76.4	84.9	67.8	854
High	96.1	96.5	93.9	1428
Total	**59.0**	**51.8**	**43.4**	**5008**

***MICS indicator 11; MDG indicator 30**

****MICS indicator 12; MDG indicator 31**

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

This chapter presents information about fertility, marriage, contraception, unmet need for contraceptives and antenatal care collected in the Isiolo district MICS 2008.

8.1 Fertility

Achieving national goals is directly linked to the size of a country's population and the resources available to support it. Studies have shown that, in most developing countries, resources are meagre, and hence it is very important to balance them with population growth levels. To achieve this, it is important to have population programmes that target a desired level of fertility. Such programmes require routine information monitoring the levels of fertility in a country. In MICS, fertility data was collected by asking all women of reproductive age (15-49 years) to provide complete birth histories of all children they had given birth to, such as child's name, sex, month and year of birth, survival status and if dead, the age at death.

Age Specific Fertility Rate (ASFR) is calculated by dividing the number of births in a specific age group by the number of years lived during the given period. Total Fertility Rate (TFR) is defined as the average number of births a woman would have if she went through her reproductive period (15-49 years) while reproducing at the prevailing ASFR.

Table 8.1 (RH (A)) presents the estimates of current fertility levels in the district for the three-year period preceding the survey, from mid-2005 to mid-2008. The total fertility rate is 6.4 children per woman. This implies that on average, a woman who survives from age 15 to 49 is expected to give birth to about six children in Isiolo district. This observed total fertility rate is higher than the current national average. The age specific fertility rate is highest for the age group 25-29 years.

Table 8.1: Current fertility

Age specific fertility rates (ASFR) and total fertility rate (TFR) for the 3-years preceding the survey, Isiolo district, Eastern Province, Kenya 2008

Age group	Total births per 1000 live births
15-19	152
20-24	246
25-29	275
30-34	210
35-39	162
40-44	150
45-49	77
TFR	**6.4**

TFR: Total fertility rate for women age 15-49 years expressed per woman.

The distribution of all women and married women based on the number of children ever born and living are shown in Table 8.2. The average number of children ever born to all women is 3.9 with 3.7 surviving, those ever born to currently married women is 3.7, with 3.5 surviving. The results also indicate that nearly half (48 per cent) of the women aged 45-49 years have eight or more children ever born. The percentage of women aged 45-49 who have not given birth is used as a proxy indicator for the level of infertility, which apparently affects three percent of Isiolo women in this age group.

Table 8.2: Children ever born and living

Percentage distribution of all women and currently married women by number of children ever born, and mean number of children ever born and living, according to age groups, Isiolo district, Eastern Province, Kenya 2008

Age group	Number of children ever born									Total	Number of women	Mean number of children	
	0	1	2	3	4	5	6	7	8+			Ever born	Living
All women													
15-19	75.4	17.8	5.9	0.8	0.0	0.0	0.0	0.0	0.0	100.0	218	1.3	1,3
20-24	25.1	31.4	23.1	11.8	6.9	0.3	0.3	1.3	0.0	100.0	218	2,1	2.0
25-29	5.7	25.6	17.5	32.0	10.6	4.9	1.9	1.2	0.8	100.0	173	2.7	2.6
30-34	4.9	9.1	16.7	8.2	18.4	17.4	15.4	7.6	2.3	100.0	139	4.3	4.2
35-39	2.0	2.5	1.2	7.8	19.1	23.5	16.3	14.2	13.4	100.0	99	6.0	5.7
40-44	0.0	0.0	17.0	11.3	16.9	12.0	13.6	13.2	16.0	100.0	88	5,7	5.0
45-49	3.1	2.4	2.5	9.8	1.3	15.2	11.4	12.4	41.9	100.0	62	7.8	7.0
Total	**24.1**	**16.9**	**13.5**	**11.8**	**9.4**	**7.7**	**6.0**	**4.9**	**5.8**	**100.0**	**997**	**3.9**	**3,7**
Currently Married Women													
15-19	35.7	45.4	16.6	2.3	0.0	0.0	0.0	0.0	0.0	100.0	78	0.9	0.7
20-24	7.2	36.0	27.5	16.3	10.3	0.4	0.4	1.9	0.0	100.0	143	2.0	2.0
25-29	3.2	19.7	19.5	35.6	11.3	6.0	2.3	1.4	0.9	100.0	141	2.7	2.6
30-34	1.4	7.8	13.6	9.4	19.9	19.3	16.9	9.0	2.7	100.0	118	4.5	4.3
35-39	1.4	0.0	1.4	7.5	16.0	27.7	16.4	16.8	12.8	100.0	83	5.9	5.6
40-44	0.0	0.0	17.2	10.7	11.5	11.3	14.8	13.8	20.7	100.0	68	5.9	5.6
45-49	4.0	0.0	2.0	10.8	0.9	7.9	14.9	11.5	48.1	100.0	48	7.9	7.1
Total	**7.0**	**18.3**	**16.1**	**15.5**	**11.2**	**9.8**	**8.0**	**6.5**	**7.7**	**100.0**	**680**	**3.7**	**3.5**

8.2 Teenage Pregnancy and Motherhood

Reducing pregnancy rates among adolescents is one of the flagship programs of the Government of Kenya. Information regarding teenage pregnancy and motherhood is presented in Table 8.3. About one in four (25 per cent) women aged 15-19 years have given birth to at least one child while about eight per cent are currently pregnant.

There are large differentials on the onset of motherhood by socio-economic status. About 37 per cent of teenagers with no education have given birth to at least one child, compared to only three per cent among those who attained at least a secondary education level. About 45 per cent of teenagers with no education have begun childbearing compared to only 13 per cent among those with secondary education. Surprisingly, the proportion of teenagers who have initiated child bearing does not seem to vary much by increasing levels of household wealth index.

Table 8.3: Teenage pregnancy and motherhood

Percentage of women age 15-19 years who are mothers or pregnant with their first child and percent who have begun child bearing, Isiolo district, Eastern Province, Kenya 2008

Characteristic	Percentage who		Percentage who have began child bearing	Number of women
	Have had a live birth	Are pregnant with first child		
Age				
15	0.0	5.0	5.0	28
16	11.1	11.0	22.0	45
17	18.1	9.3	27.4	48
18	42.6	2.3	44.9	65
19	37.8	14.5	52.3	32
Education				
None	36.9	7.9	44.8	86
Primary	21.3	7.0	28.2	99
Secondary +	3.2	9.8	13.0	34
Wealth index				
Low	27.6	3.4	31.0	117
Medium	25.7	12.6	38.3	44
High	17.7	12.7	30.4	58
Total	**24.6**	**7.7**	**32.3**	**218**

8.3 Contraception

Appropriate family planning is important to the health of women and children as it has many benefits. First, appropriate family planning prevents pregnancies that are too early or too late. Secondly, it helps to space the period between births, and thirdly family planning enables couples to control the number of children. A World Fit for Children goal is to ensure access by all couples to information and services to prevent pregnancies that are too early, too closely spaced, too late or too many.

Information on current use of contraception among currently married women of reproductive age is presented in Table 8.4 (RH.1). About 18 per cent of currently married women are using any method of contraception, with a significant proportion of users relying on modern methods. The most popular method is the injection (10 per cent) followed by pill (5 per cent).

There are variations in the use of modern contraception across age groups. While the proportion of users is 12 per cent among the 15-19 years age group, the corresponding figure is 26 per cent for those aged 44-49 years. Women who are educated are more likely to use contraception as evidenced in the proportion of users who have attained a secondary level or higher level of education at 35 per cent versus only eight per cent among those with no education. Similarly, the proportion of women from the high wealth index households who are using any method is higher (41 per cent) than for those from low wealth index households (4 per cent). The pill is the most popular method choice among women with secondary education (20 per cent) while injections remain popular among those with primary education level (22 per cent). Choices of methods by levels of wealth index show that majority of those from the high wealth index households prefer the injection followed by the pills.

Table 8.4 (RH.1): Use of contraception

Percentage of women aged 15-49 years currently married or in union who are using (or whose partner is using) a contraceptive method, Isiolo district, Eastern Province, Kenya 2008

		Percentage of women (currently married or in union) who are using:												
Characteristics	Not using any method	Female sterilization	Pill	IUD	Injections	Implants	Diaphragm/ foam/jelly	LAM	Periodic abstinence	Total	Any modern method	Any traditional method	Any method*	Number of women
Age														
15-19	88.4	0.0	1.4	0.0	9.0	0.0	1.3	0.0	0.0	100.0	11.6	0.0	11.6	78
20-24	82.5	0.7	2.7	0.0	12.8	0.8	0.4	0.0	0.0	100.0	17.5	0.0	17.5	143
25-29	79.6	0.0	6.1	0.0	13.4	0.4	0.4	0.0	0.0	100.0	20.4	0.0	20.4	141
30-34	79.6	0.0	7.1	1.7	11.4	0.2	0.0	0.0	0.0	100.0	20.4	0.0	20.4	118
35-39	84.2	0.0	6.7	0.0	6.8	2.3	0.0	0.0	0.0	100.0	15.8	0.0	15.8	83
40-44	73.6	1.1	9.7	2.8	10.0	0.0	0.0	0.0	2.8	100.0	23.5	2.8	26.4	68
45-49	(90.8)	(0.0)	(0.0)	(0.0)	(0.0)	(6.8)	(0.0)	(2.4)	(0.0)	(100.0)	(6.8)	(2.4)	(9.2)	48
Number of living children**														
0	95.3	0.0	4.2	0.0	0.5	0.0	0.0	0.0	0.0	100.0	4.7	0.0	4.7	56
1	74.0	0.0	5.0	1.9	16.5	1.4	1.3	0.0	0.0	100.0	26.0	0.0	26.0	129
2	72.9	0.0	8.7	1.3	14.6	0.2	0.5	0.0	1.8	100.0	25.4	1.8	27.1	109
3	71.4	0.7	9.5	0.0	15.4	3.1	0.0	0.0	0.0	100.0	28.6	0.0	28.6	106
4+	90.6	0.4	2.1	0.0	5.9	0.7	0.0	0.4	0.0	100.0	9.0	0.4	9.4	280
Education														
None	91.8	0.2	1.4	0.5	4.5	0.6	0.2	0.3	0.5	100.0	7.4	0.7	8.2	408
Primary	67.9	0.0	6.7	0.6	22.0	2.0	0.8	0.0	0.0	100.0	32.1	0.0	32.1	194
Secondary +	65.0	1.0	20.2	1.0	11.7	1.1	0.0	0.0	0.0	100.0	35.0	0.0	35.0	77
Non-standard Curriculum	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	1
Wealth index														
Low	95.6	0.3	0.4	0.0	3.0	0.0	0.5	0.3	0.0	100.0	4.1	0.3	4.4	342
Medium	88.8	0.0	5.6	0.0	5.6	0.0	0.0	0.0	0.0	100.0	11.2	0.0	11.2	107
High	58.8	0.3	11.7	1.7	23.3	3.1	0.3	0.0	0.8	100.0	40.4	0.8	41.2	231
Total	**82.0**	**0.3**	**5.0**	**0.6**	**10.3**	**1.1**	**0.3**	**0.2**	**0.3**	**100.0**	**17.6**	**0.4**	**18.0**	**680**

***MICS indicator 21; MDG indicator 19C**

Note: Male sterilization, female condoms and other methods are not used and are therefore not shown.

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses (e.g. (10.5)) are based on 25-49 unweighted cases.

8.4 Unmet Need

Unmet need for contraception[7] refers to fecund women who are not using any method of contraception, but who wish to postpone the next birth or who wish to stop childbearing altogether. 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.

Women with an unmet need for spacing include those who are currently married (or in union), fecund (are currently pregnant or think that they are physically able to become pregnant), currently not using contraception, and want to space their births. Pregnant women are considered to want to space their births if they did not want the child at the time they got pregnant. Women who are not pregnant are classified in this category if they want to have another child, but want to have the child at least two years later or after marriage.

Women with an unmet need for limiting are those who are currently married (or in union), fecund (are currently pregnant or think that they are physically able to become pregnant), currently not using contraception, and want to limit their births. The latter group includes women who are currently pregnant but had not wanted the pregnancy at all, and women who are not currently pregnant but do not want to have another child.

Total unmet need for contraception is simply the sum of the unmet need for spacing and the unmet need for limiting. The total demand for contraception includes women who currently have an unmet need (for spacing or limiting) plus those who are currently using contraception. The demand for contraception satisfied is defined as the proportion of women currently married or in union who are currently using contraception, out of the total demand for contraception.

Table 8.5 (RH.2) shows the results of the survey on contraception, unmet need, and the demand for contraception satisfied. The unmet need for contraception is about four per cent, with 3.6 per cent having an unmet need for spacing and the remaining for limiting. Adolescents had the highest levels of unmet need for contraception (about six per cent) while women older than forty years have low levels of unmet need for contraception. The unmet need among women with secondary or higher education levels is 9 per cent versus only three per cent among those with no education. Similarly, it is surprising to find that the proportion of women from low wealth index households reporting an unmet was three per cent versus six per cent for those from high wealth index households.

[7] Unmet need measurement in MICS is somewhat different than that used in other household surveys, such as the Demographic and Health Surveys (DHS). In DHS, more detailed information is collected on postpartum amenorrhoea, and sexual activity. Results from the two types of surveys are strictly not comparable.

Table 8.5 (RH.2): Unmet need for contraception

Percentage of women aged 15-49 years currently married or in union with an unmet need for family planning and percentage of demand for contraception satisfied, Isiolo district, Eastern Province, Kenya 2008

Characteristics	Current use of 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****			
Age							
15-19	11.6	6.3	0.0	6.3	78	(*)	14
20-24	17.5	6.2	0.0	6.2	143	(73.8)	34
25-29	20.4	3.6	0.4	4.1	141	(83.4)	35
30-34	20.4	1.2	3.1	4.3	118	(82.7)	29
35-39	15.8	3.2	1.4	4.6	83	(*)	17
40-44	26.4	0.0	0.0	0.0	68	(*)	18
45-49	(9.2)	(2.4)	(0.0)	(2.4)	48	(*)	5
Education							
None	8.2	2.6	.4	3.0	408	73.2	46
Primary	32.1	5.3	.3	5.6	194	85.2	73
Secondary +	35.0	4.3	4.2	8.5	77	80.4	33
Non-standard Curriculum	(*)	(*)	(*)	(*)	1	.	0
Wealth index							
Low	4.4	2.8	0.3	3.1	342	(58.5)	26
Medium	11.2	5.1	0.0	5.1	107	(*)	17
High	41.2	3.9	1.8	5.8	231	87.7	109
Total	**18.0**	**3.6**	**0.8**	**4.3**	**680**	**80.5**	**152**

***MICS indicator 21; MDG indicator 19C**
******MICS indicator 98**
*******MICS indicator 99**
** Unmet need for spacing is defined as women who are fecund and not currently using contraception and want to space their births.
*** Unmet need to limit is defined as women who are fecund and not currently using contraception and want to limit their births.
***** Proportion of demand satisfied is defined as the proportion of currently married or in union women who are currently using contraception of the total demand for contraception.
NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
Figures in parentheses (e.g. (10.5)) are based on 25-49 unweighted cases.

8.5 Antenatal Care

The antenatal period presents important opportunities for reaching pregnant women with a number of interventions that may be vital to their health and well-being and that of their infants. Better understanding of foetal growth and development and its relationship to the mother's health has resulted in increased attention to the potential of antenatal care as an intervention to improve both maternal and newborn health. For example, if the antenatal period is used to inform women and families about the danger signs and symptoms and about the risks of labour and delivery, it may provide the route for ensuring that pregnant women do in practice deliver with the assistance of a

skilled health care provider. The antenatal period also provides an opportunity to supply information on birth spacing, which is recognized as an important factor in improving infant survival. Tetanus immunization during pregnancy can be life-saving for both the mother and infant. The prevention and treatment of malaria among pregnant women, management of anaemia during pregnancy and treatment of 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 to prevent infections (e.g., malaria and STIs) during pregnancy. More recently, the potential of the antenatal period as an entry point for HIV prevention and care, in particular for the prevention of HIV transmission from mother to child has led to renewed interest in access to and use of antenatal care services.

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

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

The type of personnel providing antenatal care to women aged 15-49 years who gave birth in the two years preceding the survey are summarized in Table 8.6. About 17 per cent of the women did not receive any antenatal care. Majority of these come from low wealth index households and are women with no education. Four out of five women reported having received antenatal care by a skilled personnel (a doctor, nurse, or midwife). The proportion of women receiving antenatal care from a skilled personnel increases with increasing levels of education of the woman as well as by increasing levels of the household wealth index. With the exception of the 35-49 age group where about 68 per cent of women received antenatal care from a skilled personnel, the proportion receiving antenatal care in the remaining age groups was at least 80 per cent.

Table 8.6 (RH.3): Antenatal care provider

Percentage distribution of women aged 15-49 who gave birth in the two years preceding the survey by type of personnel providing antenatal care, Isiolo district, Eastern Province, Kenya 2008

Characteristics	Person providing antenatal care**							
	Medical doctor	Nurse/ midwife	Traditional birth attendant	Other	No ante-natal care	Total	Antenatal care by any skilled personnel*	Number of women who gave birth in the preceding two years
Age								
15-19	35.3	47.6	1.2	4.3	11.6	100.0	82.8	46
20-24	28.0	52.0	0.7	0.0	19.2	100.0	80.0	114
25-29	25.3	58.5	3.5	0.0	12.6	100.0	83.9	80
30-34	26.6	56.7	1.2	0.0	15.4	100.0	83.4	67
35-49	25.4	42.5	4.9	0.0	27.1	100.0	67.9	59
Education								
None	27.0	45.0	3.4	0.8	23.7	100.0	72.0	231
Primary	28.2	63.8	0.0	0.0	8.0	100.0	92.0	110
Secondary +	(33.2)	(66.8)	(0.0)	(0.0)	(0.0)	(100.0)	(100.0)	24
Non-standard Curriculum	0.0	100.0	0.0	0.0	0.0	0.0	100.0	1
Wealth index								
Low	22.4	48.9	2.4	0.9	25.4	100.0	71.3	218
Medium	29.2	57.7	5.2	0.0	7.9	100.0	86.9	51
High	38.7	56.9	0.0	0.0	4.5	100.0	95.5	97
Total	**27.7**	**52.2**	**2.2**	**0.5**	**17.4**	**100.0**	**79.9**	**366**

***MICS indicator 20**

* Skilled health personnel include doctors, nurses, midwives, and auxiliary midwives.

** If the respondent mentioned more than one provider, only the most qualified provider is considered.

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

The types of services pregnant women received are shown in table 8.7 (RH.4). Among women who gave birth during the two years preceding the survey, 83 per cent reported receiving antenatal care at least twice. The proportion of women who received ANC during pregnancy increases by increasing levels of education and household wealth index. Among women who received antenatal care, 69 per cent had their blood pressure checked, 66 per cent reported that their blood sample was taken, 59 per cent gave a urine specimen, and 76 per cent had weight measurements taken. The proportion of women receiving all the above checks increased with increasing levels of education of the woman and by increasing levels of the household wealth index.

Table 8.7 (RH.4): Antenatal care

Percentage of pregnant women receiving antenatal care among women aged 15-49 years who gave birth in two years preceding the survey and percent of pregnant women receiving specific care as part of the antenatal care received, Isiolo district, Eastern Province, Kenya 2008

Characteristics	Percentage of pregnant women receiving ANC one or more	Percentage of pregnant women who had:				Number of women who gave birth in two years preceding survey
		Blood test taken*	Blood pressure measured*	Urine specimen taken*	Weight measured*	
Age						
15-19	88.4	65.1	62.8	57.8	78.9	46
20-24	80.8	66.2	68.4	62.1	74.7	114
25-29	87.4	72.5	74.7	66.0	81.6	80
30-34	84.6	69.9	77.5	57.7	79.7	67
35-49	72.9	52.7	55.1	44.8	65.7	59
Education						
None	76.3	55.0	58.3	49.9	67.4	231
Primary	92.0	81.6	83.5	69.3	89.3	110
Secondary +	100.0	98.3	98.3	95.3	100.0	24
Non-standard Curriculum	(*)	(*)	(*)	(*)	(*)	1
Wealth index						
Low	74.6	50.5	55.1	43.7	66.1	218
Medium	92.1	81.6	85.3	71.2	85.3	51
High	95.5	92.5	90.2	86.1	94.0	97
Total	**82.6**	**65.9**	**68.6**	**58.8**	**76.2**	**366**

***MICS indicator 44**

* Proportions are calculated separately: Total number of women weighed, blood pressure measured, gave urine sample, gave blood sample.

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

8.6 Assistance at Delivery

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

The MICS included a number of questions to assess the proportion of births attended by a s*killed attendant,* which includes a doctor, nurse, midwife or auxiliary midwife. About 34 per cent of births that occurred during the two year period preceding the survey were delivered by skilled personnel (Table 8.8 (RH.5). The proportion of mothers who received skilled assistance during delivery was highest among teenage mothers (46 per cent) and lowest among older mothers (35-49 years) at 17 per cent. Education attainment of the mother plays a key role in receiving skilled delivery assistance. For example, while 53 per cent of mothers with primary level education received skilled delivery, the figure was only 19 per cent for mothers with no education. A similar trend is observed with the levels of household wealth index, i.e. only 14 per cent of women from low wealth index households received skilled delivery assistance versus 78 per cent for women from high wealth index households.

About one in eight births (12 per cent) were delivered by a doctor, 22 per cent by a nurse/midwife, seven per cent by either a relative or friend, and nearly 53 per cent by the assistance of a traditional birth attendant. The proportion of women assisted by a doctor or nurse/midwife increased with increasing levels of the household wealth index and education of the mother. However, as expected the proportion of women who received delivery assistance from traditional birth attendants is higher among women from low wealth index households (69 per cent) and lowest among those from the high wealth index households (18 per cent).

In terms of health facility deliveries, 31 per cent of the deliveries occurred in a health facility. The proportion of mothers delivering in the health facility was highest for 15-19 year olds, those who were more educated and also mothers from high wealth index households.

Table 8.8 (RH.5): Assistance during delivery

Percentage distribution of women aged 15-49 with a birth in two years preceding the survey by type of personnel assisting at delivery, Isiolo district, Eastern Province, Kenya 2008

	Person assisting at delivery										
Characteristics	Medical doctor	Nurse/ midwife	Traditional birth attendant	Community health worker	Relative/ friend	Other	No attendant	Total	Any skilled personnel*	Delivered in health facility	Number of women who gave birth in preceding two years
Age											
15-19	22.0	23.6	46.2	0.0	6.2	0.0	2.1	100.0	45.6	44.4	46
20-24	10.2	26.5	52.9	0.7	5.8	1.1	2.8	100.0	36.6	32.4	114
25-29	11.2	27.0	45.8	0.9	7.8	5.0	2.3	100.0	38.2	35.4	80
30-34	13.4	17.0	53.3	0.0	9.3	0.0	7.0	100.0	30.5	28.8	67
35-49	7.1	9.9	69.5	0.0	5.2	1.7	6.7	100.0	16.9	12.7	59
Education											
None	7.9	11.3	64.7	0.0	8.6	2.4	5.1	100.0	19.2	15.9	231
Primary	19.5	33.3	38.4	0.8	4.8	0.7	2.5	100.0	52.8	49.9	110
Secondary +	(17.0)	(67.4)	(12.7)	(3.0)	(0.0)	(0.0)	(0.0)	(100.0)	(84.3)	(82.6)	24
Non-standard Curriculum	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	1
Wealth index											
Low	3.5	10.1	68.8	0.4	8.6	2.6	6.0	100.0	13.6	9.5	218
Medium	12.2	23.9	53.3	0.0	7.7	0.0	2.9	100.0	36.1	34.9	51
High	30.8	47.0	18.3	0.7	2.4	0.7	0.0	100.0	77.8	75.9	97
Total	**12.0**	**21.8**	**53.2**	**0.4**	**6.8**	**1.7**	**4.0**	**100.0**	**33.8**	**30.7**	**366**

***MICS indicator 4; MDG indicator 17**
****MICS indicator 5**
* Skilled health personnel include doctors, nurses, midwives, and auxiliary midwives.
NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
Figures in parentheses (e.g. (10.5)) are based on 25-49 unweighted cases.

Child Development 9

9.1 Child Learning

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

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

In Isiolo district, about 44 per cent of children below five years had an adult engaged with them in about four child activities that promote learning and school readiness during the three days preceding the survey (Table 9.1 (CD.1). The average number of activities that adults engaged in with children was three. The fathers' involvement in such activities was somewhat limited. Fathers' involvement with one or more activities was noted only in 31 per cent of the children, with the average number of activities being less than one. Among all children under five years, almost 22 per cent were living in a household without their natural fathers. The results show that the higher the level of education for either the mother or the father, the more likely it is for a household member to get involved in child activities that promote learning and school readiness. The same pattern is observed for household wealth index where the higher the wealth index, the more likely it is for a household member to get involved in activities that promote learning and school readiness.

Table 9.1 (CD.1): Family support for learning

Percentage of children aged 0-59 months for whom household members are engaged in activities that promote learning and school readiness, Isiolo district, Eastern Province, Kenya 2008

	Percentage of children aged 0-59 months					
Characteristics	For whom household members engaged in four or more activities that promote learning and school readiness*	Mean number of activities household members engage in with the child	For whom the father engaged in one or more activities that promote learning and school readiness**	Mean number of activities the father engaged in with the child	Living in a household without their natural father	Number of children aged 0-59 months
Sex						
Male	46.1	3.1	31.7	0.6	22.9	553
Female	41.3	2.8	30.8	0.5	20.1	519
Age						
0-23 months	24.3	2.1	24.4	0.4	17.4	451
24-59 months	58.0	3.6	36.2	0.6	24.5	621
Mother's education						
None	39.4	2.7	29.1	0.5	21.4	690
Primary	49.1	3.4	32.0	0.5	24.9	297
Secondary +	61.1	3.8	45.9	1.1	10.5	83
Non-standard Curriculum	(*)	(*)	(*)	(*)	(*)	2
Father's education						
None	36.3	2.6	34.5	0.6	0.0	450
Primary	45.2	3.1	39.6	0.6	0.0	265
Secondary +	51.7	3.6	47.3	0.9	0.0	122
Non-standard Curriculum	(*)	(*)	(*)	(*)	(*)	5
Father not in HH	52.3	3.3	6.4	0.1	100.0	231
Wealth index						
Low	40.0	2.7	28.5	0.4	20.6	617
Medium	48.8	3.2	34.7	0.5	28.1	174
High	48.9	3.3	35.2	0.8	19.4	282
Total	**43.8**	**3.0**	**31.2**	**0.5**	**21.5**	**1072**

***MICS indicator 46**
* Any adult has engaged in 4 or more activities to promote learning and school readiness in the past 3 days.
* **MICS indicator 47**
** Father has provided one or more activities to promote learning and school readiness.
NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

10.1 Pre-School Attendance and School Readiness

Attendance pre-school education in an organized learning or child education program is important for the readiness of children to attend further schooling. One of the goals in A World Fit for Children is the promotion of early childhood education.

Table 10.1 (ED.1) shows the distribution of children aged 36-59 months who are attending some form of an organized early childhood education programme. About 41 per cent of children aged 36-59 months are currently attending early childhood education. There is little variation in attendance between males and female children. The proportion of children attending early childhood education increases with increasing levels of the mother's education and household wealth index.

Table 10.1 (ED.1) also shows the proportion of children in standard one who attended pre-school the previous year, which is an important indicator of readiness for school. About 86 per cent of children who are currently aged five and attending standard one of primary school attended pre-school the previous year. However, the numbers are too small to enable more disaggregated analysis by wealth index and mother's education levels.

Table 10.1 (ED.1): Early childhood education

Percentage of children aged 36-59 months who are attending some form of organized early childhood education programme and per cent of first graders who attended pre-school, Isiolo district, Eastern Province, Kenya 2008

Characteristics	Percentage of children aged 36-59 months currently attending early childhood education	Number of children aged 36-59 months	Percentage of children attending standard one who attended preschool program in previous year	Number of children attending standard one
Sex				
Male	41.9	201	(*)	12
Female	39.7	203	(*)	19
Age of child				
36-47 months	27.4	218	(*)	0
48-59 months	56.5	186	(*)	0
6 years*	(*)	0	(85.5)	31
Mother's education				
None	36.3	271	(*)	19
Primary	48.6	103	(*)7	11
Secondary +	(55.8)	29	(*)0	1
Non-standard Curriculum	(*)	1	.	0
Wealth index				
Low	32.7	231	(*)	17
Medium	42.2	70	(*)	7
High	58.0	103	(*)	7
Total	**40.8**	**404**	**(85.5)**	**31**

***MICS indicator 52**

* Primary school entry age should be defined at the country level (usually based on UNESCO's ISCED1 classification). Here, it is assumed that primary education starts at age 6.

**** MICS indicator 53**

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

10.2 Primary and Secondary School Participation

Universal access to basic education and the achievement of primary education by the world's children is one of the most important goals of the Millennium Development Goals (goal 2 target 3) and A World Fit for Children. Education is a vital ingredient for combating poverty, empowering women, protecting children from hazardous and exploitative labour and sexual exploitation, promoting human rights and democracy, protecting the environment, and influencing population growth.

The following indicators are used to track down the achievement of these aims at primary and secondary levels.

- Net intake rate in primary education
- Net primary school attendance rate

- Net secondary school attendance rate
- Net primary school attendance rate of children of secondary school age
- Female to male education ratio (or gender parity index - GPI)

The indicators of school progression include:

- Survival rate to grade five
- Transition rate to secondary school
- Net primary completion rate

Among children who are of primary school entry age (age six) in Isiolo, only 22 per cent are attending standard one. Surprisingly, the proportion of female attendance is nearly double that of male children attendance (29 per cent versus 15 per cent). Attendance levels were higher for children with mother's who have attained primary level education versus those with no education.

Table 10.2 (ED.2): Primary school entry

Percentage of children of primary school entry age (6 years old) attending grade 1,Isiolo district, Eastern Province, Kenya 2008

Characteristics	Percentage of children of primary school entry age currently attending grade 1*	Number of children of primary school entry age
Sex		
Male	14.6	102
Female	29.1	104
Mother's education		
None	19.5	153
Primary	31.7	44
Secondary +	(*)	8
Wealth index		
Low	18.7	128
Medium	(35.2)	30
High	22.2	47
Total	**21.9**	**205**

***MICS indicator 54**

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

Table 10.3 (ED.3) provides the percentage of children of primary school age attending primary or secondary school. Majority (66 per cent) of children of primary school age are attending school. Overall, female children have a negligible difference in net attendance rate in comparison to males (65 per cent versus 67 per cent). Irrespective of gender, the proportion of children attending school increases with increasing levels of mother's education and household wealth index.

Table 10.3 (ED.3): Primary school net attendance ratio

Percentage of children of primary school age (6 – 13 years) attending primary or secondary school (NAR), Isiolo district, Eastern Province, Kenya 2008

Characteristics	Net attendance ratio*			Number of children		
	Male	Female	Total	Male	Female	Total
Age						
6	20.3	33.9	27.2	102	104	205
7	50.3	46.9	48.8	76	58	134
8	66.7	65.7	66.1	72	90	162
9	75.5	74.9	75.2	74	69	143
10	80.8	81.1	81.0	90	105	195
11	81.1	74.5	78.4	65	46	112
12	84.8	75.0	79.8	69	71	140
13	91.1	73.7	82.2	70	73	143
Mother's education						
None	63.2	59.6	61.4	474	477	951
Primary	72.7	80.8	76.7	117	112	229
Secondary +	(95.4)	(94.3)	94.9	28	25	52
Non-standard Curriculum	(*)	(*)	(*)	1	0	1
Wealth index						
Low	54.9	54.9	54.9	367	367	734
Medium	89.7	76.3	82.6	95	107	203
High	79.5	82.1	80.7	156	141	297
Total	**66.5**	**64.9**	**65.7**	**619**	**615**	**1234**

*** MICS indicator 55; MDG indicator 6**

* The primary school net attendance ratio (NAR) is the per cent of children of primary school age that are attending primary or secondary school. Children of primary school age (6-13 years) currently attending primary or secondary school are included in the numerator. All children of primary school age are included in the denominator.

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

The net attendance ratios presented in Table 10.4 (ED.4) clearly indicates that only one out of nine children of secondary school age (14-17 years) are attending secondary school. The implications are that nearly eighty nine per cent of secondary school aged children are either out of school or attending primary school. Male children dominate the secondary school net attendance ratio at 13 per cent compared to 10 per cent for females. The household wealth index seems to influence the secondary school net attendance ratios. For example, while only seven per cent of those from low wealth index are attending secondary school, the corresponding figure is 20 per for those from high wealth index households.

Table 10.4 (ED.4): Secondary school net attendance ratio

Percentage of children of secondary school age (14 – 17 years) attending secondary school or higher (NAR), Isiolo district, Eastern Province, Kenya 2008

	Net attendance ratio			Number of children		
Characteristics	Male	Female	Total	Male	Female	Total
Age						
14	1.5	0.3	0.9	63	75	137
15	6.3	10.3	7.5	75	34	108
16	18.7	(14.8)	17.1	64	47	111
17	(29.6)	(17.5)	23.1	43	51	95
Mother's education						
None	10.3	5.7	8.5	187	126	313
Primary	(*)	(25.1)	24.9	24	35	59
Secondary +	(*)	(*)	(*)	8	5	12
	(7.6)	(7.2)	7.4	26	40	66
Mother not in HH						
Non-standard curriculum	(*)	(*)	(*)	0	0	1
Wealth index						
Low	7.3	6.2	6.8	150	118	268
Medium	(19.9)	(4.0)	13.9	51	31	82
High	21.7	19.0	20.2	43	59	102
Total	**12.5**	**9.5**	**11.1**	**244**	**207**	**451**

*** MICS indicator 56**

* The secondary school net attendance ratio (NAR) is the per cent of children of secondary school age that are attending secondary school or higher. Children of secondary school age currently attending secondary school or higher are included in the numerator. All children of secondary school age are included in the denominator.

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

Table 10.5 (ED.4W) shows the percentage distribution of children of secondary school age (14 – 17 years) attending primary school. About one in four (25 per cent) children of secondary school age in Isiolo district are attending primary school. As expected the proportion of these children drops with increasing age. However, there are minimal differences in the proportion of children of secondary school age attending primary school by varying levels of household wealth index. It is also surprising that the proportion of these children is higher for those with mothers who have attained a primary education level (35 per cent) versus those with mothers who have no education (26 per cent).

Table 10.5 (ED.4w): Secondary school age children attending primary school

Percentage of children of secondary school age (14 – 17 years) attending primary school, Isiolo district, Eastern Province, Kenya 2008

Characteristics	Percentage attending primary school			Number of children		
	Male	Female	Total	Male	Female	Total
Age						
14	49.9	49.4	49.6	63	75	137
15	27.3	(16.4)	23.9	75	34	108
16	12.7	(8.2)	10.8	64	47	111
17	(12.1)	(4.8)	8.1	43	51	95
Mother's education						
None	26.8	24.8	26.0	187	126	313
Primary	(*)	(34.3)	34.6	24	35	59
Secondary +	(*)	(*)	(*)	8	5	12
Non standard curriculum	(*)	(*)	(*)	0	0	1
Mother not in HH	(19.5)	(6.2)	11.4	26	40	66
Wealth index						
Low	26.4	21.2	24.1	150	118	268
Medium	(19.8)	(41.2)	27.8	51	31	82
High	35.4	19.2	26.1	43	59	102
Total	**26.6**	**23.6**	**25.2**	**244**	**207**	**451**

* Children of secondary school age currently attending primary school are included in the numerator. All children of secondary school age are included in the denominator.

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

Table 10.6 (ED.7) presents the Gender Parity Index (GPI) which compares the net attendance ratios for males and females in primary and secondary school. GPI at the primary level is 0.98 while that of secondary schooling is 0.77, meaning for every 100 enrolled males, there are 98 females at the primary level and only 77 at the secondary level. The primary school GPI does not vary much by increasing levels of the mother's education or by varying levels of the household wealth index. In terms of secondary school gender parity index, there are clear differences by mothers education in favour of children with mothers who have attained a primary level education as well as some differences by household wealth index in favour of children from low and high wealth index households.

Table 10.6 (ED.7): Education gender parity

Ratio of girls to boys attending primary education and ratio of girls to boys attending secondary education, Isiolo district, Eastern Province, Kenya 2008

	Primary school net attendance ratio (NAR)			Secondary school net attendance ratio (NAR)		
Characteristics	Girls	Boys	Gender parity index (GPI) for primary school NAR*	Girls	Boys	Gender parity index (GPI) for secondary school NAR*
Sex						
Male	NA	66.5	NA	NA	12.5	NA
Female	65.0	NA	NA	9.5	NA	NA
Mother's education						
None	59.6	63.2	0.94	5.7	10.3	0.55
Primary	81.3	72.7	1.12	25.1	24.7	1.02
Secondary +	94.3	95.4	0.99	16.1	42.4	0.38
Wealth index						
Low	54.9	54.9	1.00	6.2	7.3	0.86
Medium	76.3	89.7	0.85	4.0	19.9	0.20
High	82.5	79.5	1.04	19.0	21.7	0.88
Total	**65.0**	**66.5**	**0.98**	**9.5**	**12.5**	**0.77**

***MICS indicator 61; MDG indicator 9**

* The gender parity index (GPI) is the ratio of female to male net attendance ratios (primary or secondary). The primary and secondary net attendance ratios are presented in Tables ED.3 and ED.4.

10.3 Adult Literacy

Literacy plays an important role in contributing to economic prosperity, good health, cultural identity, civic participation and tolerance, and individuals' ability to realise their potential. For many young people, lack of adequate literacy skills can lead to poverty and social exclusion. Adult literacy is an MDG indicator attached to goal 2 target 3, relating to both men and women, and is also one of the goals covered by A World Fit for Children. The results presented in Table 10.7 (ED.8) are for women aged 15-24 years, since only a women's questionnaire was administered in the MICS survey. The results indicate that less than half of all women aged 15-24 years (47 per cent) are literate in Isiolo district. The proportion of literate women in the age group 15-19 years is slightly higher than for those aged 20-24 years (53 per cent versus 40 per cent, respectively). There seems to a strong relationship between wealth index of the household and literacy levels. For example, the proportion of literate women among low wealth index households is only 31 per cent versus 68 per cent among women from high wealth index households.

Table 10.7 (ED.8): Adult literacy

Percentage of women aged 15-24 years that are literate*, Isiolo district, Eastern Province, Kenya 2008

Characteristics	Percentage literate*	Percentage not known**	Number of women aged 15-24 years
Education			
None	2.1	0.0	182
Primary	72.4	0.4	196
Secondary +	100.0	0.0	57
Age			
15-19	52.8	0.3	218
20-24	40.3	0.0	218
Wealth index			
Low	30.6	0.3	213
Medium	52.2	0.0	82
High	67.6	0.0	141
Total	**46.6**	**0.2**	**436**

***MICS indicator 60; MDG indicator 8**

* Per cent of women aged 15-24 years who are able to read a short simple statement about every day life or who attended secondary or higher education.

** The per cent not known includes those for whom no sentence in the required language was available or for whom no response was reported. If the per cent of the population for whom literacy status is not known exceeds 10 per cent in any category, caution should be exercised in the interpretation of the results.

11.1 Birth Registration

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

About one in five births (19 per cent) of children under five years in Isiolo district are registered (Table 11.1 (CP.1)). There are differences in the proportion of births registered by levels of mother's education and household wealth index. While 13 per cent of births to women with no education were registered, the corresponding figure is about 45 per cent for women with secondary education or above. Similarly, only 9 per cent of children from low wealth index households are registered versus 41 per cent among those from high wealth index households. Lack of knowledge that births of children should be registered remains the main reason (57 per cent) as to why mothers do not register a child, followed by distance (17 per cent) and lack of knowledge of place for registration (13 per cent)

Table 11.1 (CP.1): Birth registration
Percentage distribution of children aged 0-59 months by whether birth is registered and reasons for non-registration, Isiolo district, Eastern Province, Kenya 2008

				Birth is not registered because:								
Characteristics	Birth is registered *	Don't know if birth is registered	Number of children aged 0-59 months	Costs too much	Must travel too far	Didn't know child should be registered	Late, didn't want to pay fine	Doesn't know where to register	Other	Don't know	Total	Number of children aged 0-59 months without birth registration
Sex												
Male	22.0	0.4	553	3.3	19.2	55.7	1.2	13.6	5.9	1.1	100.0	368
Female	16.4	0.0	519	2.3	15.7	57.5	1.4	13.3	7.2	2.5	100.0	385
Age												
0-11 months	19.4	1.0	221	3.0	20.8	53.5	1.7	10.7	7.6	2.7	100.0	152
12-23 months	23.4	0.0	218	1.0	15.6	58.4	0.5	19.0	5.5	0.0	100.0	151
24-35 months	22.0	0.0	220	2.7	17.1	57.1	3.1	12.2	6.2	1.6	100.0	156
36-47 months	15.3	0.0	208	2.9	15.0	59.8	0.0	10.4	8.3	3.5	100.0	145
48-59 months	15.8	0.0	204	4.5	18.4	54.4	1.2	14.8	5.3	1.4	100.0	150
Mother's education												
None	12.7	0.3	690	2.3	17.0	59.6	0.3	15.1	3.9	1.9	100.0	564
Primary	27.6	0.0	297	5.1	18.8	50.9	3.0	8.9	11.4	1.9	100.0	166
Secondary+	45.0	0.0	83	(0.0)	(19.6)	(26.7)	(14.8)	(6.4)	(32.4)	(0.0)	(100.0)	23
Non-standard curriculum	(*)	(*)	2	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	1
Wealth index												
Low	8.5	0.4	617	2.4	16.0	62.7	0.2	13.6	3.2	1.9	100.0	545
Medium	22.2	0.0	174	.9	27.1	46.7	1.9	14.7	7.2	1.5	100.0	109
High	41.1	0.0	282	7.1	14.5	34.4	7.1	10.9	24.5	1.5	100.0	99
Total	**19.3**	**0.2**	**1,072**	**2.8**	**17.4**	**56.6**	**1.3**	**13.4**	**6.6**	**1.8**	**100.0**	**754**

*** MICS Indicator 62***Per cent of women aged 15-24 years who are able to read a short simple statement about everyday life (wm 14 = 3) or who attended secondary or higher education (wm 11=2 or 3).
NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

11.2 Child Labour

Article 32 of the Convention on the Rights of the Child states: "States Parties recognize the right of the child to be protected from economic exploitation and from performing any work that is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral or social development...". A World Fit for Children mentions nine strategies to combat child labour, while the MDGs call for the protection of children against exploitation. In the MICS questionnaire, a number of questions addressed the issue of child labour, that is, by asking about children aged 5-14 years who are involved in labour activities.

A child is considered to be involved in child labour activities if during the week preceding the survey the child was involved in:

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

This definition allows differentiation between child labour and child work to identify the type of work that should be eliminated. As such, the estimates provided here are a minimum of the prevalence of child labour since some children may be involved in hazardous labour activities for a number of hours that could be less than the numbers specified in the criteria provided above.

Table 11.2 (CP.2) presents the results of child labour by type of work a child was engaged in. The percentages may not add up to the total child labour as children may be involved in more than one type of work. Among children aged 5-14 years, barely one per cent are involved in paid or unpaid work outside the household. Nine per cent of that age cohort is engaged in child labour, with six per cent involved in household chores while two per cent are involved in the family business. Females are more likely to be engaged in child labour mainly due to their engagement in household chores for 28 hours or more in a week. The prevalence of child labour is higher among the older children (12-14 years of age). Similarly, the prevalence of child labour is higher among children from low wealth index households.

Table 11.2 (CP.2): Child labour

Percentage of children aged 5-14 years who are involved in child labor activities by type of work, Isiolo district, Eastern Province, Kenya 2008

Characteristics	Working outside household		Household chores for 28+ hours/	Working for family business	Total child labor*	Number of children aged 5-14 years
	Paid work	Unpaid work				
Sex						
Male	0.5	0.7	4.3	1.2	6.5	775
Female	0.4	0.5	8.5	1.9	10.8	805
Age						
5-11 years	0.2	0.8	3.6	1.7	6.2	1,160
12-14 years	1.2	0.1	14.2	1.0	15.7	420
School participation						
Yes	0.2	0.6	3.3	1.3	5.2	1,245
No	1.3	0.8	18.0	2.4	21.8	335
Mother's education						
None	0.6	0.4	7.0	1.3	9.0	1,208
Primary	0.0	1.5	5.1	2.8	9.2	304
Secondary +	0.0	0.0	1.1	0.0	1.1	66
Non-standard Curriculum	(*)	(*)	(*)	(*)	(*)	2
Wealth index						
Low	0.7	0.6	9.0	1.9	11.6	938
Medium	0.0	0.7	4.9	1.1	6.7	262
High	0.2	0.7	1.1	1.0	3.0	380
Total	**0.4**	**0.6**	**6.4**	**1.5**	**8.7**	**1,580**

* **MICS Indicator 71**

* The table is based on the responses to a series of questions in the child labour module which is administered to the mother/caretaker of each child in the household 5-14 years of age. The numerator to estimate the child labour per cent includes: (a) children 5-11 years of age that during the week preceding the survey did at least one hour of economic activity or at least 28 hours of domestic chores, and (b) children 12-14 years of age that during the week preceding the survey did at least 14 hours of economic activity or at least 28 hours of domestic chores.

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

The distribution of children classified as 'student labourers' and 'labourer students' is presented in Table 11.3 (CP.3.) More specifically, of the 79 per cent of the children aged 5-14 years attending school, nine per cent are also involved in some form of child labour activities. On the other hand, 47 per cent of child labourers are also attending school while five per cent of students are involved in child labour. Females are more likely to be involved in child labour, as well as to be students in child labour. The proportion of child labourers attending school increases with increasing levels of mothers' education. Similarly, the proportion of child labourer's attending school increases with increasing levels of household wealth index.

Table 11.3 (CP.3): Labourer students and student labourers

Percentage of children aged 5-14 years who are labourer students and student labourers, Isiolo district, Eastern Province, Kenya 2008

Characteristics	Percentage of children in child labour*	Percentage of children attending school	Number of children 5-14 years of age	Percentage of child labourers who are also attending school	Number of child labourers aged 5-14	Percentage of students who are also involved in child labour****	Number of students aged 5-14
Sex							
Male	6.5	81.4	775	45.7	51	3.7	631
Female	10.8	76.3	805	47.9	87	6.8	614
Age							
5-9 years	6.2	79.5	1,160	50.5	72	3.9	921
10-14 years	15.7	77.0	420	43.3	66	8.8	324
Mother's education							
None	9.0	74.0	1,208	38.7	109	4.7	894
Primary	9.2	93.2	304	78.5	28	7.7	283
Secondary +	1.1	99.1	66	100.0	1	1.1	66
Non-standard Curriculum	(*)	(*)	2	.	(*)	(*)	2
Wealth index							
Low	11.6	70.3	938	39.7	109	6.5	659
Medium	6.7	90.3	262	70.8	18	5.2	237
High	3.0	91.8	380	81.0	11	2.7	349
Total	**8.7**	**78.8**	**1,580**	**47.1**	**138**	**5.2**	**1,245**

* The table is based on the responses to a series of questions in the child labour module which is administered to the caretaker of each child in the household 5-14 years of age. The numerator to estimate the child labour per cent includes: (a) children 5-11 years of age that during the week preceding the survey did at least one hour of economic activity or at least 28 hours of domestic chores, and (b) children 12-14 years of age that during the week preceding the survey did at least 14 hours of economic activity or at least 28 hours of domestic chores.

**** MICS Indicator 72**

** Labourer students: Number of children 5-14 years of age invoved in child labour activities that are also attending school divided by the total number of children 5-14 years of age involved in child labour activities.

****** MICS Indicator 73**

**** Student labourers: Number of children 5-14 years of age attending school that are also invoved in child labour activities divided by the total number of children 5-14 attending school.

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

11.3 Child Discipline

As stated in A World Fit for Children, "children must be protected against any acts of violence …" and the Millennium Declaration calls for the protection of children against abuse, exploitation and violence. In Isiolo district MICS survey, mothers/caretakers of children aged 2-14 years were asked a series of questions on the ways parents use to discipline their children when they misbehave. Note that for the child discipline module, one child aged 2-14 per household was selected randomly during fieldwork. Out of these questions, the two indicators used to describe aspects of child discipline are: 1) the number of children aged 2-14 years that experience psychological aggression as punishment ***or*** minor physical punishment ***or*** severe physical punishment; and 2) the number of parents/caretakers of children 2-14 years of age that believe that in order to raise their children properly, they need to physically punish them.

In Isiolo, 72 per cent of children aged 2-14 years were subjected to at least one form of psychological or physical punishment by their mothers/caretakers or other household members (Table 11.4). Specifically, 17 per cent of children were subjected to severe physical punishment, and 22 per cent were subjected to non-violent discipline. About 64 per cent of mothers or caretakers of children believe that a child needs to be physically punished.

The punishment patterns for male and female children showed modest differentials; neither did the mother's perspective on the need to punish physically vary between female and male children. There are no notable differences in the proportion of children subjected to any psychological or physical punishment by levels of household wealth index. A similar pattern is observed by levels of mother's education. However, severe physical punishment was more prevalent among children from low wealth status households.

Table 11.4 (CP.4): Child discipline

Percentage of children aged 2-14 years according to method of disciplining the child, Isiolo district, Eastern Province, Kenya 2008

	Percentage of children 2-14 years of age who experience:								
		Type of punishment							
Characteristics	Only non-violent discipline	Psycho-logical	Minor physical	Severe physical	Any psychological or physical	No discipline or punishment	Missing	Mother/ caretaker believes that the child needs to be physically punished	Number of children aged 2-14 years**
Sex									
Male	22.6	58.7	58.9	16.2	70.6	6.8	0.0	63.5	1028
Female	22.2	59.6	55.8	16.8	72.9	4.9	0.0	64.3	940
Age									
2-4 years	22.2	54.7	54.6	17.5	71.2	6.6	0.0	63.5	452
5-9 years	23.3	58.1	56.8	11.8	70.7	6.1	0.0	60.8	820
10-14 years	21.5	63.2	59.9	21.3	73.2	5.3	0.0	67.9	696
Mother's education									
None	23.0	59.9	56.5	17.0	71.4	5.6	0.0	66.1	1439
Primary	22.2	56.5	63.2	16.3	72.6	5.2	0.0	59.2	430
Secondary +	15.5	60.7	42.7	10.1	71.1	13.4	0.0	50.8	95
Non-standard Curriculum	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	3
Wealth index									
Low	24.2	60.1	57.7	19.4	71.3	4.6	0.0	68.0	1162
Medium	27.0	58.1	52.5	13.8	70.4	2.6	0.0	63.3	345
High	14.6	57.5	60.2	11.2	73.7	11.8	0.0	54.1	461
Total	**22.4**	**59.1**	**57.4**	**16.5**	**71.7**	**5.9**	**0.0**	**63.9**	**1968**

*** MICS Indicator 74**

** Table is based on children aged 2-14 years randomly selected during fieldwork (one child selected per household, if any children in the age range) for whom the questions on child discipline were administered.

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

11.4 Early Marriage

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

In many parts of the world, parents encourage marriage of their daughters while they are still young in the hope that the marriage will benefit such parents both financially and socially, while also relieving the family of financial burdens. Child marriage is a violation of human rights compromising the development of girls and often resulting in early pregnancy and social isolation, with little education and poor vocational training reinforcing the gendered nature of poverty. The right to 'free and full' consent to a marriage is recognized in the Universal Declaration of Human Rights - with the recognition that consent cannot be 'free and full' when one of the parties involved is not sufficiently mature to make an informed decision about a life partner. The Convention on the Elimination of all Forms of Discrimination against Women mentions the right to protection from child marriage in article 16, which states: "The betrothal and the marriage of a child shall have no legal effect, and all necessary action, including legislation, shall be taken to specify a minimum age for marriage..." While marriage is not considered directly in the Convention on the Rights of the Child, child marriage is linked to other rights - such as the right to express their views freely, the right to protection from all forms of abuse, and the right to be protected from harmful traditional practices - and is frequently addressed by the Committee on the Rights of the Child. Other international agreements related to child marriage are the Convention on Consent to Marriage, Minimum Age for Marriage and Registration of Marriages and the African Charter on the Rights and Welfare of the Child and the Protocol to the African Charter on Human and People's Rights on the Rights of Women in Africa. Child marriage was also identified by the Pan-African Forum against the Sexual Exploitation of Children as a type of commercial sexual exploitation of children.

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

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

Closely related to the issue of child marriage is the age at which girls become sexually active. Women who are married before the age of 18 tend to have more children than those who marry later in life. Pregnancy related deaths are known to be a leading cause of mortality for both married and unmarried girls between the ages of 15 and 19, particularly among the youngest of this cohort.

There is evidence to suggest that girls who marry at young ages are more likely to marry older men which puts them at increased risk of HIV infection.

The information on early marriage is presented in Table 11.5 (CP.5). About 14 per cent of women aged 15-49 years got married before reaching 15 years, and 47 per cent of women aged 20-49 years were married or were in union before their 18th birth day. The table indicates that 36 per cent of women aged 15-19 years are currently married or in union. Early marriage is more prevalent among women with low education and declines with increasing levels of education attained. The results also shows that the proportion of women married before reaching 15 years declines with increasing levels of household wealth index in Isiolo district.

Table 11.5 (CP.5): Early marriage

Percentage of women aged 15-49 years in marriage or union before their 15th birthday, per cent of women aged 20-49 years in marriage or union before their 18th birthday, and per cent of women aged 15-19 years currently married or in union, Isiolo district, Eastern Province, Kenya 2008

Characteristics	Percentage married before age 15*	Number of women aged 15-49 years	Percentage married before age 18*	Number of women aged 20-49 years	Percentage of women 15-19 married/in union**	Number of women aged 15-19 years
Age						
15-19	9.5	218	NA	NA	35.8	78
20-24	16.5	218	49.0	218	NA	143
25-29	13.5	173	41.6	173	NA	141
30-34	15.5	139	51.3	139	NA	118
35-39	17.0	99	54.2	99	NA	83
40-44	14.1	88	34.6	88	NA	68
45-49	13.8	62	51.8	62	NA	48
Education						
None	17.5	514	51.5	428	55.7	408
Primary	13.2	348	52.0	249	23.1	194
Secondary +	2.4	134	14.8	100	22.7	77
Non-standard Curriculum	(*)	2	(*)	1	(*)	0
Wealth index						
Low	18.0	476	57.8	360	36.7	342
Medium	11.9	162	40.4	118	30.9	107
High	9.6	359	36.7	301	37.7	231
Total	**14.0**	**997**	**47.0**	**779**	**35.8**	**680**

***MICS indicator 67**
**** MICS indicator 68**
***** MICS indicator 70**
NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

Table 11.6 (CP.6) presents the results of the age difference between husbands and wives. About 75 per cent of the women aged 15-24 years are married or in union with a partner who is five or more years older. The proportion of women who are married or in union with a partner who is 0-4 years older is only 21 per cent.

Table 11.6 (CP.6): Spousal age difference

Percentage distribution of currently married/in union women aged 15-19 and 20-24 years according to the age difference with their husband or partner, Isiolo district, Eastern Province, Kenya 2008

Characteristics	Percentage of currently married/in union women whose husband or partner is:						Number of women currently married/ in union
	Younger	0-4 years older	5-9 years older	10+ years older*	Husband' s age unknown	Total	
Age							
15-19	0.0	13.2	54.7	26.8	5.4	100.0	78
20-24	3.1	24.6	33.1	38.6	0.7	100.0	143
Total	**2.0**	**20.6**	**40.8**	**34.5**	**2.3**	**100.0**	**221**

**MICS indicator*

11.5 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 4 and 14; it is also done to infants, women who are about to get 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 anesthesia, using scissors, razor blades or broken glass.

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

In MICS, a series of questions were asked to determine knowledge of FGM/C, prevalence of FGM/C, and details of the type of FGM/C performed. Table 11.7 and Table 11.8 (CP.7) summarize the prevalence of FGM/C among women and the type and extent of the procedure as well as women's attitudes towards FGM/C. In Isiolo, 98 per cent of women aged 15-49 years have heard about FGM/C. The knowledge level of FGM/C is well distributed across age, education and household wealth index. Seven out of ten women reported to have undergone some form of FGM/C. This prevalence was higher among older women particularly those with no education and women from low wealth index households. Among those who had experienced some form of FGM/C, 80 per cent had some flesh removed and 12 per cent were sewn and closed. Among women who had FGM/C, 11 per cent experienced an extreme form of FGM/C. Surprisingly, the proportion of women who experienced extreme forms of FGM/C were higher for women from high wealth index households (18 per cent).

Table 11.7 (CP.7): Female genital mutilation/cutting (FGM/C)

Percentage of women aged 15-49 years who have heard about female genital mutilation/cutting (FGM/C), had any form of FGM/C, type of FGM/C among those who have had FGM/C, the per cent who have had the extreme form of FGM/C (infibulation), Isiolo district, Eastern Province, Kenya 2008

				Percentage of women with FGM/C who:						
Characteristics	Heard about FGM/C	Had any form of FGM/C*	Number of women aged 15-49 years	Had flesh removed	Were nicked	Were sewn closed	Form of FGM/C not determined	Total	Had an extreme form of FGM/C**	Number of women with FGM/C
Age										
15-19	97.7	68.8	218	83.3	5.1	10.7	0.9	100.0	10.7	150
20-24	97.9	64.8	218	80.7	7.8	9.9	1.6	100.0	8.5	141
25-29	98.6	74.9	173	75.5	10.9	12.7	0.9	100.0	12.7	130
30-34	97.2	71.7	139	79.2	4.0	16.8	0.0	100.0	15.7	100
35-39	92.9	78.3	99	78.1	8.7	7.4	5.8	100.0	6.1	77
40-44	100.0	65.9	88	79.1	3.1	14.5	3.3	100.0	14.5	58
45-49	99.3	77.7	62	(80.2)	(3.8)	(12.9)	(3.1)	(100.0)	(12.9)	48
Education										
None	96.7	81.8	514	78.2	6.9	12.8	2.1	100.0	12.1	420
Primary	98.6	60.8	348	81.2	6.8	10.2	1.8	100.0	9.8	212
Secondary +	98.8	53.0	134	83.3	4.9	11.7	0.0	100.0	11.4	71
Non-standard Curriculum	(*)	(*)	2	(*)	(*)	(*)	(*)	(*)	(*)	2
FGM/C Experience**										
No FMG/C**	92.0	0.0	293	(*)	(*)	(*)	(*)	(*)	(*)	0
Had FMG/C**	100.0	100.0	704	79.6	6.7	11.9	1.8	100.0	11.3	704
Wealth index										
Low	96.4	76.3	476	82.2	7.4	9.7	0.7	100.0	8.9	364
Medium	99.2	83.4	162	84.0	5.5	7.7	2.8	100.0	7.7	135
High	98.6	57.4	359	72.1	6.3	18.4	3.2	100.0	17.8	206
Total	**97.6**	**70.7**	**997**	**79.6**	**6.7**	**11.9**	**1.8**	**100.0**	**11.3**	**704**

***MICS indicator 63**

* Women aged 15-49 reporting they had any type of female genital mutilation/cutting. Individual forms of FGM/C include the removal of flesh from the genital area, the nicking of the flesh of the genital area and sewing closed the genital area.

**** MICS indicator 64**

** Extreme form of FGM/C (infibulations) is defined as both the removal of flesh from the genital area AND sewing closed the genital area. (*)

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

All women who have heard about FGM/C were asked whether the practice should be continued or not. The results of these attitudes towards FGM/C are presented in Table 11.8. Almost half of the women (48 per cent) in Isiolo district who have heard about FGM/C want the practice to continue. The proportion of women who want the practice to continue decreased with increasing levels of education attainment as well as by increasing levels of household wealth index. For example, only 15 per cent of women with secondary or above level of education want the practice to continue compared to 67 per cent of those with no education.

Table 11.8 (CP.7): Attitude towards Female genital mutilation/cutting (FGM/C)

Percentage distribution of women age 15-49 years who have heard about FGM/C according to attitudes towards whether the practice of FGM/C should be continued, Isiolo district, Eastern Province, Kenya 2008

	Percentage distribution of women age 15-49 years who believe the practice of FGM/C should:					
Characteristics	Continue ***	Be discontinued	Depends on situation	Don't know	Total	Number of women aged 15-49 years who have heard of FGM/C
Age						
15-19	50.8	46.4	1.0	1.8	100	213
20-24	46.3	53.6	0.1	0.0	100	213
25-29	37.4	62.4	0.2	0.0	100	170
30-34	53.7	44.6	0.2	1.5	100	135
35-39	46.0	51.9	2.1	0.0	100	92
40-44	45.1	54.0	0.8	0.0	100	88
45-49	62.5	33.6	0.9	2.9	100	62
Education						
None	66.5	32.3	0.2	0.9	100	497
Primary	32.9	65.8	1.2	0.0	100	343
Secondary +	14.5	82.5	0.6	2.5	100	132
Non-standard Curriculum	(*)	(*)	(*)	(*)	(*)	2
FGM/C experience**						
No FMG/C**	4.5	91.6	1.7	2.2	100	269
Had FMG/C**	64.1	35.4	0.2	0.2	100	704
Wealth index						
Low	61.8	36.6	0.6	1.0	100	459
Medium	58.1	40.4	1.5	0.0	100	160
High	24.5	74.3	0.3	0.9	100	354
Total	**47.6**	**50.9**	**0.6**	**0.8**	**100**	**973**

***** MICS indicator 66**

(*) based on less than 25 un-weighted cases

The prevalence and extent of FGM/C performed on daughters of the respondents is presented in Table 11.9 (CP.8). All women aged 15-49 years with at least one daughter were asked whether their daughter had undergone FGM/C or not. About 26 per cent of women had daughter(s) who had undergone FGM/C, with 10 per cent of them having an extreme form of FGM/C. In 83 per cent of the cases, the operation involved removal of flesh. Education plays a major role in FGM/C; none of the women with secondary or above level of education reported that their daughters had undergone the practice, while 34 per cent of the women with no education reported that their daughters had had FGM/C.

Table 11.9 (CP.8): Female genital mutilation/cutting (FGM/C) among daughters

Percentage of women with at least one living daughter who has had female genital mutilation/cutting (FGM/C), and the per cent by type of FGM/C of the daughters, Isiolo district, Eastern Province, Kenya 2008

Characteristics	Daughter had any form of FGM/C*	Number of women aged 15-49 years with at least one daughter	Percentage of women whose daughters: Had flesh removed	Were nicked	Were sewn closed	Form of FGM/C not determined	Total	Daughter had an extreme form of FGM/C	Number of women aged 15-49 years with at least one living daughter who had FGM/C
Age of woman									
15-24	3.6	124	(*)	(*)	(*)	(*)	(*)	(*)	4
25-34	17.9	225	(70.6)	(11.2)	(18.2)	(0.0)	(100.0)	(18.2)	40
35-49	45.4	233	87.8	5.9	5.7	0.6	100.0	5.7	106
Education									
None	33.6	356	81.7	6.1	11.7	0.5	100.0	11.7	120
Primary	17.3	178	(87.6)	(10.1)	(2.3)	(0.0)	(100.0)	(2.3)	31
Secondary +	0.0	48	(*)	(*)	(*)	(*)	(*)	.	0
Non-standard Curriculum	(*)	0	(*)	(*)	(*)	(*)	(*)	(*)	0
Mother's FGM/C experience									
Had any FGM/C	34.2	437	82.6	7.2	9.8	0.4	100.0	9.8	150
No FGM/C	0.7	145	(*)	(*)	(*)	(*)	(*)	(*)	1
Wealth index									
Low	28.9	297	81.2	6.1	12.8	0.0	100.0	12.8	86
Medium	40.6	86	(89.1)	(7.9)	(3.0)	(0.0)	(100.0)	(3.0)	35
High	15.0	200	(79.6)	(9.4)	(8.9)	(2.1)	(100.0)	(8.9)	30
Total	**25.9**	**582**	**82.7**	**7.1**	**9.8**	**0.4**	**100.0**	**9.8**	**151**

***MICS indicator 65**

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

11.6 Domestic Violence

Women aged 15-49 years were asked a number of questions to assess their attitudes towards domestic violence. The questions related to whether husbands are justified to hit or beat their wives/partners for a variety of reasons. The questions asked have an indication of cultural beliefs that tend to be associated with the prevalence of violence against women by their husbands/partners. The main assumption here is that women who agree with the statements indicating that husbands/partners are justified to beat their wives/partners under the situations described may in reality tend to be abused by their own husbands/partners. The responses to these questions are presented in Table 11.10 (CP.9).

Three out of four women aged 15-49 years believe that a husband is justified in beating his wife/partner for any of the reasons that include: going out without telling him, neglecting the children, arguing with him, refusing to have sex with him or burning food. Sixty two per cent of the women approve beating for neglecting children and 54 per cent for going out without his knowledge. Burning of food is the least approved justification for spousal beating among women in the district.

Seventy seven per cent of women currently married/in union justify spousal beating compared to 66 percent of those who have never married/ in union. Similarly, women with no education and those from low wealth index households justify spousal beating (78 and 84 per cent respectively) a little more than those who have attained a secondary or higher level of education or those from high wealth index households (54 and 62 per cent, respectively)

Table 11.10 (CP.9): Attitudes toward domestic violence

Percentage of women aged 15-49 years who believe a husband is justified in beating his wife/partner in various circumstances, Isiolo district, Eastern Province, Kenya 2008

Characteristics	Percentage of women aged 15-49 years who believe a husband is justified in beating his wife/partner: When she goes out without telling him	When she neglects the children	When she argues with him	When she refuses sex with him	When she burns the food	For any of these reasons*	Number of women aged 15-49 years
Age							
15-19	49.3	56.4	47.1	42.8	19.7	71.3	218
20-24	57.1	61.0	42.4	50.4	19.9	77.2	218
25-29	50.6	61.9	34.1	49.2	18.4	73.4	173
30-34	50.4	62.0	45.3	49.1	24.8	75.4	139
35-39	50.7	62.7	44.0	37.1	17.5	70.0	99
40-44	67.1	64.9	54.5	58.1	28.7	78.4	88
45-49	67.9	73.9	57.0	60.0	25.9	78.1	62
Marital/Union status							
Currently married/in union	57.4	65.0	49.5	52.7	23.6	77.4	680
Formerly married	50.1	61.5	38.2	39.3	18.3	73.2	109
Never married	46.2	50.6	31.6	38.6	14.9	65.7	209
Education							
None	60.9	67.7	57.0	56.2	29.4	78.4	514
Primary	52.6	60.1	32.7	43.7	13.4	76.5	348
Secondary +	33.2	42.0	27.1	30.6	10.3	54.1	134
Non-standard Curriculum	(*)	(*)	(*)	(*)	(*)	(*)	2
Wealth index							
Low	68.3	72.6	58.3	59.6	32.2	84.1	476
Medium	56.8	63.2	43.5	46.5	19.9	73.9	162
High	34.5	46.3	26.7	34.0	7.2	61.9	359
Total	**54.2**	**61.6**	**44.5**	**48.3**	**21.2**	**74.5**	**997**

***MICS indicator 100**

(*) based on less than 25 un-weighted cases

12.1 Knowledge of HIV Transmission and Condom Use

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

Women were asked whether they knew of the three main ways of HIV transmission namely: having only one faithful uninfected partner; using a condom every time and abstaining from sex. The results are presented in Table 12.1 (HA.1). In Isiolo, almost all of the interviewed women (91 per cent) have heard of AIDS. However, the percentage of women who know of all three main ways of preventing HIV transmission is only 43 per cent. Seventy seven per cent of women know of having one faithful uninfected sex partner, 53 per cent know of using a condom every time, and 72 per cent know of abstaining from sex, as main ways of preventing HIV transmission. Knowledge of at least one way to prevent transmission of HIV among women is high (86 per cent), although nearly fourteen per cent of women do not know any of the three ways of preventing transmission of HIV. As expected, the level of knowledge about preventing transmission of HIV increases with education and the level of household wealth index. The 14 per cent who do not know of any way of preventing HIV transmission are largely from the groups of women who have no education and those from poorer households.

Table 12.1 (HA.1): Knowledge of preventing HIV transmission

Percentage of women aged 15-49 years who know the main ways of preventing HIV transmission, Isiolo district, Eastern Province, Kenya 2008

Characteristics	Heard of AIDS	Percentage who know transmission can be prevented by: Having only one faithful uninfected sex partner	Using a condom every time	Abstaining from sex	Knows all three ways	Knows at least one way	Doesn't know any way	Number of women
Age								
15-19	86.7	74.3	48.1	69.2	40.7	81.1	18.9	218
20-24	93.1	73.3	54.6	74.2	42.6	87.4	12.6	218
25-29	93.4	83.4	58.0	72.2	46.8	90.9	9.1	173
30-34	94.4	81.0	57.7	68.6	44.6	89.2	10.8	139
35-39	92.1	73.7	54.3	76.8	45.7	83.1	16.9	99
40-44	86.2	73.1	43.5	78.7	36.2	84.9	15.1	88
45-49	86.0	75.1	46.7	65.1	37.4	79.3	20.7	62
Education								
None	83.3	69.9	43.6	70.1	37.1	78.9	21.1	514
Primary	98.5	79.7	61.2	72.4	46.1	91.5	8.5	348
Secondary +	99.5	93.0	65.4	78.6	54.6	96.8	3.2	134
Non-standard Curriculum	(*)	(*)	(*)	(*)	(*)	(*)	(*)	2
Wealth index								
Low	84.7	70.3	43.7	68.6	36.3	79.4	20.6	476
Medium	93.3	69.9	55.4	74.1	43.8	83.0	17.0	162
High	97.7	87.7	63.5	75.7	50.4	95.4	4.6	359
Total	**90.8**	**76.5**	**52.7**	**72.1**	**42.6**	**85.7**	**14.3**	**997**

Note: This table is based on all women age 15-49 years

(*) based on less than 25 un-weighted cases

Table 12.2 (HA.2) presents the percentage of women who can correctly identify misconceptions concerning HIV. The indicator is based on the two most common and relevant misconceptions; that HIV can be transmitted by supernatural means, or by mosquito bites. The table also provides information on whether women know that HIV cannot be transmitted by sharing food, but that HIV can be transmitted by sharing needles.

Among interviewed women, 49 per cent rejected the two most common misconceptions and know that a healthy-looking person can be infected. Only 37 per cent of the women who have no education rejected the two most common misconceptions and know that a healthy-looking persons can be infected compared to over 60 and 66 per cent among those with primary level and secondary or higher level of education, respectively. Eighty per cent of women know that HIV cannot be transmitted by supernatural means, 80 per cent of women know that it cannot be transmitted by sharing food, and 63 per cent know it cannot be transmitted through a mosquito bite. However, 72 per cent know that a healthy-looking person can be infected, and 88 per cent know that the virus can be transmitted by sharing a needle. It is evident from the table that a higher proportion of educated

women have correct knowledge about HIV/AIDS compared with those with no education or primary level. Similarly, a higher proportion of women from higher wealth index households have more knowledge of HIV versus those from low wealth index households.

Table 12.2 (HA.2): Identifying misconceptions about HIV/AIDS

Percentage of women aged 15-49 years who correctly identify misconceptions about HIV/AIDS, Isiolo district, Eastern Province, Kenya 2008

	Percentage who know that: HIV cannot be transmitted by:			Reject two most common misconceptions and know a healthy-looking person can be infected	Percentage who know that:		
Characteristics	Option 1: Supernatural means	Option 2: Mosquito bites	A healthy looking person can be infected		Option 3: HIV cannot be transmitted by sharing food	Option 4: HIV can be transmitted by sharing	Number of women
Age							
15-19	80.7	69.2	70.0	56.9	79.1	83.8	218
20-24	84.0	61.6	68.2	45.6	80.6	91.4	218
25-29	80.6	68.4	69.0	50.1	84.5	88.0	173
30-34	79.8	64.9	78.5	45.5	81.1	88.9	139
35-39	81.2	64.7	81.3	57.2	82.1	90.6	99
40-44	72.1	50.8	66.8	39.2	71.5	83.7	88
45-49	76.6	40.1	71.4	34.8	76.6	84.4	62
Education							
None	69.5	49.7	63.5	37.0	66.7	80.3	514
Primary	92.1	75.1	76.8	59.4	93.9	94.2	348
Secondary +	90.8	82.2	88.3	65.9	95.6	98.6	134
Non-standard Curriculum	(*)	(*)	(*)	(*)	(*)	(*)	2
Wealth index							
Low	70.9	50.9	66.0	37.1	69.6	81.1	476
Medium	86.3	64.9	73.3	53.2	87.7	91.5	162
High	90.1	78.1	78.1	62.2	90.7	94.6	359
Total	**80.3**	**62.9**	**71.5**	**48.8**	**80.1**	**87.6**	**997**

Note: This table is based on all women age 15-49 years

(*) based on less than 25 un-weighted cases

Table 12.3 (HA.3) summarizes information from Tables 12.1 (HA.1) and 12.2 (HA.2) and presents the percentage of women who know two ways of preventing HIV transmission and those who reject the three common misconceptions about HIV/AIDS. About 48 per cent of women aged 15-49 years know two ways to prevent HIV transmission and 49 per cent can correctly identify 3 misconceptions about HIV. However, women who have comprehensive knowledge (identify 2 prevention methods and 3 misconceptions) are still fairly low at 29 per cent. The proportion of women with comprehensive knowledge increases with increasing levels of household wealth index (see Figure 12.3, (HA.3)) and also increases by women's education level.

Table 12.3 (HA.3): Comprehensive knowledge of HIV/AIDS transmission

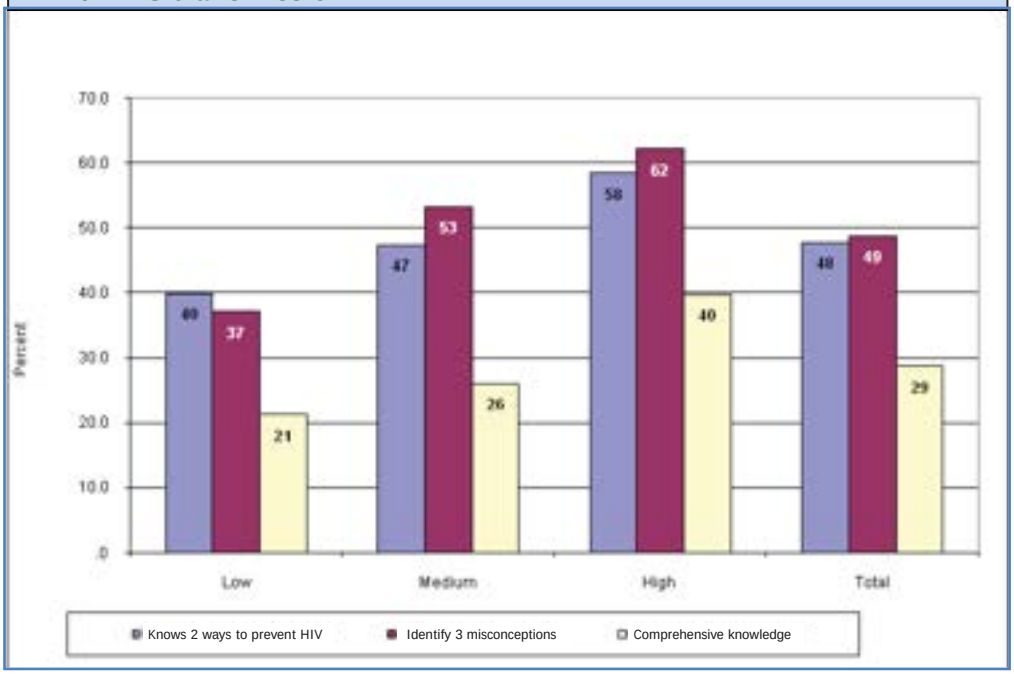
Percentage of women aged 15-49 years who have comprehensive knowledge of HIV/AIDS transmission, Isiolo district, Eastern Province, Kenya 2008

Characteristics	Know 2 ways to prevent HIV transmission	Correctly identify 3 misconceptions about HIV transmission	Have comprehensive knowledge (identify 2 prevention methods and 3 misconceptions)*	Number of women
Age				
15-19	44.4	56.9	31.9	218
20-24	46.8	45.6	23.4	218
15-24	45.6	51.2	27.7	436
25-29	53.9	50.1	32.7	173
30-34	52.3	45.5	28.3	139
35-39	49.3	57.2	33.5	99
40-44	39.7	39.2	23.2	88
45-49	45.2	34.8	26.5	62
Education				
None	39.9	37.0	22.5	514
Primary	53.7	59.4	32.4	348
Secondary +	62.7	65.9	42.6	134
Non-standard Curriculum	(*)	(*)	(*)	2
Wealth index				
Low	39.9	37.1	21.3	476
Medium	47.4	53.2	26.0	162
High	58.4	62.2	39.8	359
Total	47.8	48.8	28.7	997

***MICS indicator 82; MDG indicator 19b**

(*) based on less than 25 un-weighted cases

Figure 12.1: Percent of women who have comprehensive knowledge of HIV/AIDS transmission



Knowledge of mother-to-child transmission of HIV is also an important first step for women to seek HIV testing when they are pregnant to avoid infection of the baby. The level of knowledge among women aged 15-49 years concerning mother-to-child transmission is presented in Table 12.4 (HA.4). Overall, 88 per cent of women aged 15-45 years know that HIV can be transmitted from mother to child, but the percentage of women who know all three ways of mother-to-child transmission is only 37 per cent. Knowledge of HIV transmission from mother to child increases with increasing levels of education and household wealth index. For example, while 80 per cent of women with no education report knowledge of transmission from mother to child, the corresponding figure is about 100 per cent for women who have attained a secondary or higher level of education.

Table 12.4 (HA.4): Knowledge of mother-to-child HIV transmission

Percentage of women aged 15-49 years who correctly identify means of HIV transmission from mother to child, Isiolo district, Eastern Province, Kenya 2008

Characteristics	Know AIDS can be transmitted from mother to child	Percentage who know AIDS can be transmitted: During pregnancy	At delivery	Through breast milk	All three ways	Did not know any specific way	Number of women
Age							
15-19	84.0	41.4	58.6	83.9	34.6	2.6	218
20-24	90.7	50.2	67.7	88.3	41.6	2.4	218
25-29	91.3	43.7	67.6	90.3	38.1	2.1	173
30-34	92.4	42.8	64.6	86.9	32.7	2.0	139
35-39	90.8	46.2	79.4	86.0	41.5	1.2	99
40-44	83.3	38.7	59.0	83.3	33.6	2.9	88
45-49	81.6	40.6	63.9	79.8	35.1	4.4	62
Education							
None	79.8	40.8	58.3	77.3	34.0	3.5	514
Primary	96.8	51.0	72.4	94.7	43.9	1.7	348
Secondary +	99.5	38.6	74.3	98.9	31.3	0.0	134
Non-standard Curriculum	(*)	(*)	(*)	(*)	(*)	(*)	2
Wealth index							
Low	81.5	41.4	60.0	78.8	34.8	3.2	476
Medium	91.6	46.6	66.2	89.6	39.9	1.6	162
High	96.1	46.5	72.2	94.8	38.9	1.6	359
Total	**88.4**	**44.1**	**65.4**	**86.3**	**37.1**	**2.4**	**997**

***MICS indicator 89**

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

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

Table 12.5 (HA.5) presents the attitudes of women aged 15-49 years towards people living with HIV/AIDS. Among those who have heard about HIV/AIDS, about six per cent reported that they will not care for a family member who is sick due to HIV/AIDS. This proportion is higher among women with no education as well as those from low wealth index households. About 44 per cent reported that if a family member is sick with HIV/AIDS, they would like to keep it a secret. While, about 30 per cent of the women aged 15-49 years who have heard of HIV/AIDS in Isiolo believe that a teacher should not be allowed to work if he or she is infected, and 46 per cent will not buy food from a person who has HIV/AIDS. As expected, the proportion of women who agree with at least one discriminatory statement is highest among those who have no education and lowest among women from high wealth index households (59 per cent).

Table 12.5 (HA.5): Attitudes toward people living with HIV/AIDS

Percentage of women aged 15-49 years who have heard of AIDS who express a discriminatory attitude towards people living with HIV/AIDS, Isiolo district, Eastern Province, Kenya 2008

	Percentage of women who:						
Characteristics	Would not care for a family member who was sick with HIV/AIDS	If a family member had HIV would want to keep it a secret	Believe that a teacher with HIV should not be allowed to work	Would not buy food from a person with HIV/AIDS	Agree with at least one discriminatory statement	Agree with none of the discriminatory statements	Number of women who have heard of AIDS
Age							
15-19	6.1	52.7	27.5	49.2	75.4	24.6	189
20-24	5.6	41.0	27.0	44.2	69.4	30.6	203
25-29	6.2	45.1	26.0	39.4	64.7	35.3	162
30-34	6.1	43.7	32.3	42.6	70.5	29.5	131
35-39	7.8	38.4	29.7	44.9	64.5	35.5	91
40-44	8.9	42.3	36.5	49.2	65.3	34.7	76
45-49	1.2	33.3	46.4	65.1	78.3	21.7	53
Education							
None	9.8	43.9	43.3	57.9	77.1	22.9	428
Primary	3.8	47.6	20.3	42.8	69.1	30.9	343
Secondary +	0.2	34.6	11.6	15.1	47.1	52.9	133
Non-standard Curriculum	(*)	(*)	(*)	(*)	(*)	(*)	2
Wealth index							
Low	9.0	42.0	41.1	56.3	75.8	24.2	404
Medium	6.5	54.8	35.0	49.4	77.2	22.8	151
High	2.7	41.6	14.8	32.4	59.3	40.7	351
Total	**6.1**	**44.0**	**29.9**	**45.9**	**69.6**	**30.4**	**905**

***MICS indicator 86**

Note: This table is based on women who have heard of AIDS

(*) based on less than 25 un-weighted cases

Another important indicator is the knowledge of where to be tested for HIV, and the use of such services. Results from questions addressed to women aged 15-49 in Isiolo regarding knowledge of HIV/AIDS testing facilities, and whether they have ever been tested and given their results is presented in Table 12.6 (HA.6) below. Seventy three per cent of the women know where to be tested, but only 49 per cent have actually been tested. Of these, a large percentage have been told their result (99 per cent). Differentials by level of education and wealth index show that the knowledge of a

HIV/AIDS testing facility, and the likelihood of undertaking the test and being told the outcome increases with increasing levels of education and household wealth index.

Table 12.6 (HA.6): Knowledge of a facility for HIV testing

Percentage of women aged 15-49 years who know where to get an HIV test, percent of women who have been tested and, of those tested the percent who have been told the result, Isiolo district, Eastern Province, Kenya 2008

Characteristics	Know a place to get tested*	Have been tested**	Number of women	If tested, have been told result	Number of women who have been tested for HIV
Age					
15-19	65.8	23.9	218.5	96.5	52
20-24	75.9	55.6	217.9	96.8	121
25-29	81.9	67.4	172.9	99.4	116
30-34	80.3	64.8	139.2	99.3	90
35-39	73.1	53.7	98.6	100.0	53
40-44	(75.3)	(42.9)	(87.7)	(100.0)	38
45-49	(*)	(*)	(*)	(*)	18
Education					
None	58.7	42.8	513.7	99.3	220
Primary	85.9	55.0	347.9	97.2	191
Secondary +	96.0	57.1	133.9	100.0	76
Non-standard Curriculum	(*)	(*)	(*)	(*)	1
Wealth index					
Low	58.0	36.9	476.4	97.7	176
Medium	79.4	47.5	161.7	97.0	77
High	90.7	65.7	358.9	99.7	236
Total	**73.2**	**49.0**	**997.0**	**98.6**	**489**

***MICS indicator 87**

* Women who know of a place to get tested for HIV include those women who have already been tested, including those tested during antenatal care.

****MICS indicator 88**

** Women who have been tested for HIV includes those tested during antenatal care.

The first two columns of the table include all women in the denominator, even those who have not heard of AIDS.

In the fourth column, the denominator consists of women who have been tested and the numerator consists of women who have been told the results.

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

Among women who gave birth within the two years preceding the survey, the proportion who received counselling and HIV testing during antenatal care is presented in Table 12.7 (HA.7). Eighty per cent of mothers in Isiolo received antenatal care from a health professional and 56 per cent were provided information about HIV prevention. Fifty-six per cent of the women with a birth in the two years preceding the survey were tested for HIV/AIDS with the same percentage receiving the results of the test done. The proportion of women receiving counselling and testing for HIV during ANC visits increases with increasing levels of education attainment and by household wealth index.

Table 12.7 (HA.7): HIV testing and counseling coverage during antenatal care

Percentage of women aged 15-49 years who gave birth in the two years preceding the survey who were offered HIV testing and counseling with their antenatal care, Isiolo district, Eastern Province, Kenya 2008

	Percentage of women who:				
Characteristics	Received antenatal care from a health care professional for last pregnancy	Were provided information about HIV prevention during ANC visit*	Were tested for HIV at ANC visit	Received results of HIV test at ANC visit**	Number of women who gave birth in the 2 years preceding the survey
Age					
15-19	82.8	61.9	59.4	55.4	46
20-24	80.0	55.2	57.1	56.3	114
25-29	83.9	59.8	59.2	58.4	80
30-34	83.4	58.3	62.7	62.7	67
35-49	67.9	44.5	41.7	41.7	59
Education					
None	72.0	43.8	44.3	43.6	231
Primary	92.0	74.6	76.0	74.4	110
Secondary +	(100.0)	(84.9)	(82.0)	(82.0)	24
Non-standard Curriculum	(*)	(*)	(*)	(*)	1
Wealth index					
Low	71.3	39.1	40.4	39.5	218
Medium	86.9	79.4	70.2	67.3	51
High	95.5	81.2	85.0	85.0	97
Total	**79.9**	**55.9**	**56.4**	**55.5**	**366**

***MICS indicator 90**

****MICS indicator 91**

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

12.2 Orphans and Vulnerable Children

As the HIV epidemic progresses, more and more children are becoming orphaned and vulnerable because of AIDS. Children who are orphaned or living in vulnerable households may be at increased risk of neglect or exploitation if the parents are not available to assist them. Monitoring the variations in different outcomes for orphans and vulnerable children (OVC) and comparing them to their peers gives us a measure of how well communities and governments are responding to their needs.

To monitor these variations, a measurable definition of OVCs needed to be created. The UNAIDS Monitoring and Evaluation Reference Group developed a proxy definition of children who have been affected by adult morbidity and mortality. This captured many of the children affected by AIDS in countries where a significant proportion of the adults are HIV infected. This definition classifies children as orphaned and vulnerable; if they have experienced the death of either parent, or if either parent is chronically ill, or if an adult (aged 18-59) in the household either died (after being chronically ill) or was chronically ill in the year prior to the survey.

The distribution of children living with neither parent, mother only, and father only is presented in Table 12.8 (HA.10). Only 67 per cent of children aged 0-17 years in Isiolo lives with both parents while eleven per cent do not live with a biological parent. While the former were more likely to be younger males, the latter were likely to be older females. Fourteen per cent of children have lost one of their parents while ten per cent of them are living with their mother only, though their father is alive. While the former were likely to be older children, the latter are likely to be younger males from wealthier households.

Table 12.8 (HA.10): Children's living arrangements and orphanhood

Percentage distribution of children aged 0-17 years according to living arrangements, percent of children aged 0-17 years in households not living with a biological parent and percent of children who are orphans, Isiolo district, Eastern Province, Kenya 2008

Characteristics	Living with both parents	Living with neither parent				Living with mother only		Living with father only		Impossible to determine	Total	Not living with a biological parent*	One or both parents dead**	Number of children
		Only father alive	Only mother alive	Both are alive	Both are dead	Father alive	Father dead	Mother alive	Mother dead					
Sex														
Male	68.6	0.9	0.7	5.7	2.6	10.9	7.3	1.5	1.6	0.3	100.0	9.8	13.2	1385
Female	65.4	1.6	1.1	8.4	1.6	9.3	7.8	1.3	2.8	0.6	100.0	12.7	14.9	1343
Age														
0-4 years	78.1	0.6	0.2	4.4	0.9	11.4	3.5	0.3	0.5	0.1	100.0	6.1	5.7	834
5-9 years	63.0	1.7	1.4	9.3	3.1	10.4	6.1	1.8	3.0	0.2	100.0	15.5	15.3	853
10-14 years	63.9	1.2	0.8	6.7	2.5	10.1	10.0	1.8	2.8	0.2	100.0	11.2	17.5	726
15-17 years	56.0	1.9	1.3	8.5	1.9	6.2	16.8	2.3	3.0	2.1	100.0	13.6	24.9	314
Wealth index														
Low	69.2	1.1	0.5	6.8	1.7	8.9	8.0	0.8	2.5	0.4	100.0	10.2	14.0	1601
Medium	61.0	2.0	1.3	7.9	3.3	10.0	10.1	1.0	3.3	0.2	100.0	14.4	19.9	458
High	66.0	0.9	1.5	6.9	2.2	13.1	4.8	3.2	0.7	0.6	100.0	11.6	10.1	669
Total	**67.0**	**1.2**	**0.9**	**7.0**	**2.1**	**10.1**	**7.6**	**1.4**	**2.2**	**0.4**	**100.0**	**11.3**	**14.0**	**2728**

***MICS indicator 78**

*Children who are not living with at least one biological parent, either because the parents live elsewhere or because the parents are dead.

**** MICS indicator 75**

**Children for whom one or both biological parents are dead.

The denominator in this table is children age 0-17 years enumerated in the household listing.

NOTE: An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parenthesis (e.g. (10.5)) are based on the 25-49 unweighted cases.

Table 12.9 (HA.11) shows the proportion of OVCs aged 0-17 years. There was a negligible percentage of children aged 0-17 years who had a chronically ill parent and an adult death in the household. Seven per cent of the children live in a household with an adult member who has been chronically ill for three or more months during the year preceding the survey. Overall, nine per cent of the children are vulnerable i.e. live in a household where the parent is chronically ill, or had an adult death during the year preceding the survey, or have a chronically ill adult member. Fourteen per cent of the children aged 0-17 have one or both of their parents dead. The percentage of children with one or both parents dead increases with age.

Table 12.9 (HA.11): Prevalence of orphanhood and vulnerability among children

Percentage of children aged 0-17 years who are orphaned or vulnerable due to AIDS, Isiolo district, Eastern Province, Kenya 2008

Characteristics	Chronically ill parent	Adult death in household	Chronically ill adult in household	Vulnerable children*	One or both parents dead**	Orphans and vulnerable children	Number of children aged 0-17 years
Sex							
Male	0.6	1.5	6.2	8.1	13.2	19.1	1385
Female	0.8	1.6	8.1	9.5	14.9	21.9	1343
Age							
0-4 years	0.3	1.1	6.1	7.3	5.7	12.2	834
5-9 years	1.1	1.1	7.7	8.7	15.3	21.4	853
10-14 years	0.7	1.5	8.0	10.0	17.5	24.0	726
15-17 years	0.5	3.8	6.1	10.0	24.9	31.5	314
Wealth index							
Low	0.9	1.3	5.7	7.1	14.0	19.3	1601
Medium	0.8	2.6	8.5	11.8	19.9	27.0	458
High	0.1	1.5	9.5	10.7	10.1	18.6	669
Total	**0.7**	**1.5**	**7.1**	**8.8**	**14.0**	**20.4**	**2728**

*** MICS indicator 76**

****MICS indicator 75**

The columns of the table are produced as follows:

1) Either parent has been chronically ill for 3 of the 12 months preceding the survey

2) Adult death in the household after a chronic illness of 3 of the 12 months preceding the survey

3) Any adult in the household has been sick for 3 of the 12 months preceding the survey

4) A vulnerable child is defined as a child who lives in a household where any of the preceding 3 conditions is true.

5) A child is an orphan if one or both of his/her biological parents is dead

6) Orphaned or vulnerable children are those defined in columns 4 or 5.

7) Total number of children aged 0-17 years as enumerated in the household listing.

An orphan is a child aged 0-17 years who has lost one or both parents

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

In Isiolo, only three per cent of children aged 10-14 have lost both parents (Table 12.10 (HA.12)), but 63 percent of them are currently attending school. Among the 76 per cent of children who live with at least one of the live parents, 81 per cent are attending school. The school attendance ratio of double orphans to non-orphans is 0.8, which indicates a twenty percent disadvantage to the double orphans in terms of school attendance. The attendance rate for OVCs is 76 per cent compared to 81 per cent for non-OVCs, giving a ratio of 0.9 which implies a 10 per cent disadvantage for OVCs.

Table 12.10 (HA.12): School attendance of orphaned and vulnerable children

School attendance of children aged 10-14 years by orphanhood and vulnerability due to AIDS, Isiolo district, Eastern Province, Kenya 2008

Characteristics	Percentage of children whose mother and father have died	School attendance rate of children whose mother and father have died	Percentage of children of whom both parents are alive and child is living with at least one parent	School attendance rate of children of whom both parents are alive and child is living with at least one parent	Double orphans to non-orphans school attendance ratio*	Percentage of children who are orphaned or vulnerable	School attendance of children who are orphaned or vulnerable	Percentage of children who are not orphaned or vulnerable	School attendance of children who are not orphaned or vulnerable	OVC vs non-OVC school attendance ratio	Total number of children aged 10-14 years
Sex											
Male	2.5	46.5	80.0	85.2	0.5	21.0	75.2	79.0	85.8	0.9	357
Female	2.4	79.5	71.7	76.6	1.0	27.0	70.6	73.0	76.0	0.9	369
Wealth index											
Low	2.0	64.1	75.2	70.3	0.9	23.5	59.1	76.5	71.0	0.8	433
Medium	5.4	54.7	72.1	93.9	0.6	32.1	90.5	67.9	93.6	1.0	120
High	1.6	78.4	79.8	98.4	0.8	19.8	92.4	80.2	97.7	0.9	174
Total	**2.5**	**62.9**	**75.8**	**81.1**	**0.8**	**24.0**	**72.6**	**76.0**	**81.0**	**0.9**	**726**

*** MICS indicator 77; MDG indicator 20**

A double orphan is a child whose mother and father have both died.
OVCs due to AIDS include children whose mother or father have died (regardless of cause), who live in a household with a chronically ill adult, whose parents are chronically ill, or who live in a household where an adult who was chronically ill has died in the past year.

In many countries few services are available to families that have taken in OVCs. Community-based organizations and governments need to be sure that families are supported to care for these children. The level and types of support provided to households caring for OVCs due to HIV/AIDS is presented in Table 12.11 (HA.13). Eighty five per cent of the predominantly lower wealth status households supporting OVCs in Isiolo had not received any support at all. The most common nature of support reported in the 12 months preceding the survey (at 11 per cent) was for education. The overall support received does not vary much by household wealth index.

Table 12.11 (HA.13): Support for children orphaned and vulnerable due to AIDS

Percentage of children aged 0-17 years orphaned or made vulnerable due to AIDS whose households receive free basic external support in caring for the child, Isiolo district, Eastern Province, Kenya 2008

	Percentage of orphans and vulnerable children whose households received:							
Characteristics	Medical support (in last 12 months)	Emotional and psychosocial support (in last 3 months	Social/ material support (in last 3 months)	Educational support (in last 12 months)	Any support*	All types of support	No suppor t at all	Number of children orphaned or vulnerable aged 0-17 years
Sex								
Male	1.5	0.0	3.5	8.1	12.5	0.0	87.5	264
Female	2.3	0.0	2.9	13.2	17.2	0.0	82.8	294
Age								
0-4 years	3.8	0.0	0.7	0.0	3.8	0.0	96.2	101
5-9 years	2.1	0.0	4.6	13.1	18.1	0.0	81.9	183
10-14 years	1.9	0.0	4.2	13.7	19.3	0.0	80.7	175
15-17 years	0.0	0.0	1.5	12.3	13.0	0.0	87.0	99
Wealth index								
Low	1.9	0.0	0.3	13.0	14.9	0.0	85.1	310
Medium	1.6	0.0	6.4	5.4	13.4	0.0	86.6	124
High	2.4	0.0	7.3	10.6	16.7	0.0	83.3	124
Total	**1.9**	**0.0**	**3.2**	**10.8**	**15.0**	**0.0**	**85.0**	**558**

***MICS indicator 81**

Orphaned and vulnerable children due to AIDS (OVC) includes children whose mother or father have died (regardless of cause), who live in a household with a chronically ill adult, whose parents are chronically ill, or who live in a household where an adult who was chronically ill has died in the past year.

NA: Not applicable.

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Appendix A: Sample Design

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

The primary objective of the sample design for the Isiolo Multiple Indicator Cluster Survey (MICS) was to produce statistically reliable estimates of most indicators, at the district level. A two-stage, cluster sampling approach was used for the selection of the survey sample. Further, the households were stratified into two groups one with a child below 3 years (stratum-1) and the other without a child below 3 years (stratum-2) at the time of household listing, and more households from stratum-1 were selected to get more children in the sample from less number of households. The cluster level stratification was done to net more children and mothers who have given birth during the last few years into the sample.

Sample Size and Sample Allocation

The target sample size for the Isiolo MICS was calculated as 1,200 households. For the calculation of the sample size, the key indicator used was the immunization coverage among children age 12-23 months. The following formula was used to estimate the required sample size for these indicators:

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

where

- n is the required sample size, expressed as number of households
- 4 is a factor to achieve the 95 per cent level of confidence
- r is the predicted or anticipated prevalence (coverage rate) of the indicator
- 1.1 is the factor necessary to raise the sample size by 10 per cent for non-response
- f is the shortened symbol for *deff* (design effect)
- $0.12r$ is the margin of error to be tolerated at the 95 per cent level of confidence, defined as 12 per cent of r (relative sampling error of r)
- p is the proportion of the total population upon which the indicator, r, is based
- n_h is the average household size.

For the calculation, r (the immunization coverage) was assumed to be 65 percent. The value of *deff* (design effect) was taken as 1.3 based on estimates from previous surveys, p (percentage of children aged 12-23 months in the total population) was taken as 3.2 percent, and n_h (average household size) was taken as 4.4 households.

The resulting number of households from this exercise was 1,519 households which is the sample size needed. But, by adopting the second level stratification the total number of households to be selected was 1,080. However, it was decided to sample 1,200 households. The average cluster size was determined as 24 households (16 from stratum-1 and 8 from stratum-2), based on a number of considerations, including the budget available, and the time that would be needed per team to complete one cluster. This implies a total of 50 clusters for the district.

Sampling Frame and Selection of Clusters

The 1999 census frame was used for the selection of clusters. Census enumeration areas (EAs) were defined as primary sampling units (PSUs), and were selected using systematic PPS (probability proportional to size) sampling procedures, based on the estimated sizes of the enumeration areas from the 1999 Population Census.

Listing and Mapping Activities

Since the sample frame (the 1999 Population Census) was not up to date, household lists in all selected enumeration areas were updated prior to the selection of households. For this purpose, listing and mapping teams were formed, who visited each enumeration area, and listed the occupied households. The households were stratified into two, one having a child below 3 years and the other without a child below 3 years.

The listing and mapping teams were oriented in a 3 day training program in Isiolo, which include class room sessions and field practice. The training was facilitated by experts from KNBS and UNICEF. The district listing and mapping team consists of 3 teams; each team has a lister and a mapper. The teams were supervised by the District Statistical Officer (DSO) on a daily basis, who also attended the 3 days training program. One team was given two days to list an EA§§ and segmentation was allowed for larger EAs with more than 200 households.

Selection of Households

Lists of households were prepared by the listing teams in the field for each enumeration area. The households were grouped into two stratums based on whether the household has a child below 3 years or not. The households were then sequentially numbered from 1 to n1 and n2, where n1 is the total number of households in stratum-1 (i.e., with a child below 3 years) and n2 is the total number of households in stratum-2 (i.e., without a child below 3 years) (n1 + n2 is the total number of households in each enumeration area) at the District Statistical Office, where selection of 16 households from stratum-1 and 8 households from straum-2 were carried out using systematic selection procedures using a random start.

Calculation of Sample Weights

The Isiolo Multiple Indicator Cluster Survey sample is not self-weighted at cluster level due to cluster level stratification. Therefore, for separate weights were calculated for each of the stratums within a cluster and they were normalized at the district level. The sample weight or multiplier computation formula is given below:

$$\frac{Zd}{nd} X \frac{1}{zdi} X sdi X \frac{Hdji}{hdji}$$

§§ For all sampled EAs, both EA and Sub-location maps were developed by the cartography division of KNBS. These maps were provided to the listing and mapping teams to identify the boundaries of EA's accurately and also to map the structures in them.

Where,

Zd = total population of the district 'd',

nd = total number of clusters in district 'd',

zdi = number of households in the ith cluster of district 'd',

sdi = number of segments in the ith cluster of district 'd',

$Hdji$ = total number of households listed in the jth stratum of ith cluster in the district 'd', and

$hdji$ = number of households surveyed in the jth stratum of ith cluster in the district 'd'.

As mentioned earlier, 50 clusters were selected from the Isiolo district 2009 Census EA list using the PPS sampling methodology. However, we have computed final multipliers after combining 4-5 clusters because of small sample size in some of the cluster level stratums.

These weights were then standardized (or normalized), one purpose of which is to make the sum of the interviewed sample units equal the total sample size at the district level. Normalization is performed by multiplying the aforementioned unadjusted weights by the ratio of the number of completed households to the total unadjusted weighted number of households. A similar standardization procedure was followed in obtaining standardized weights for the women's and under-5's questionnaires. For the anthropometry additional weights were computed using the non-response for anthropometry section.

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

Appendix B: List of Personnel Involved in the Survey

Project Director
Mr. A. K. M. Kilele, Director General, KNBS

Technical Co-ordinators
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Noor Adan Abdi
Rose Kendi Kiecha
Medina Ali
Halima Abdi Walante
Agnes Lenamparasio

Appendix C: Estimates of Sampling Errors

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

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

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

For the calculation of sampling errors from MICS data, SPSS Version 14 Complex Samples module has been used, except for the under-five mortality and infant mortality, where CSPro program is used. The results are shown in the tables that follow. In addition to the sampling error measures described above, the tables also include weighted and unweighted counts of denominators for each indicator.

Sampling errors are calculated for indicators of primary interest at the district level. All indicators presented here are in the form of proportions. Table SE.1 shows the list of indicators for which sampling errors are calculated, including the base population (denominator) for each indicator. Tables SE.2 to SE.9 show the calculated sampling errors.

	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Population Size	Unweighted Count	Confidence limits	
Iodized salt consumption	0.8254	0.02688	0.033	5.432	2.331	255	1,084	0.772	0.879
Child discipline	0.6882	0.01850	0.027	1.359	1.166	185	853	0.651	0.725

	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Population Size	Unweighted Count	Confidence limits	
Use of improved drinking water sources	0.4750	0.04879	0.103	51.547	7.180	1,182	5,402	0.377	0.573
Use of improved sanitation facilities	0.3988	0.03958	0.099	35.287	5.940	1,182	5,402	0.320	0.478
Net primary school attendance rate	0.6537	0.01501	0.023	1.326	1.152	290	1,334	0.624	0.684
Net secondary school attendance rate	0.1112	0.01728	0.155	1.382	1.175	106	458	0.077	0.146
Primary completion rate	0.0206	0.01992	0.965	2.827	1.681	34	145	-0.019	0.060
Child labour	0.0871	0.01284	0.147	3.551	1.884	371	1,715	0.061	0.113
Prevalence of orphans	0.1403	0.01353	0.096	4.715	2.171	641	3,107	0.113	0.167
Prevalence of vulnerable children	0.0879	0.01146	0.130	5.091	2.256	641	3,107	0.065	0.111

	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Population Size	Unweighted Count	Confidence limits	
Skilled attendant at delivery	0.3379	0.03980	0.118	3.292	1.815	85	466	0.258	0.417
Antenatal care	0.7989	0.02479	0.031	1.779	1.334	85	466	0.749	0.848
Contraceptive prevalence	0.1801	0.02406	0.134	2.810	1.676	158	718	0.132	0.228
Adult literacy	0.4658	0.04313	0.093	3.221	1.795	102	432	0.380	0.552
Prevalence of FGM/C	0.7066	0.03887	0.055	7.258	2.694	232	997	0.629	0.784
Marriage before age 18	0.4901	0.04903	0.100	2.318	1.523	51	242	0.392	0.588
Comprehensive knowledge about HIV prevention among young people	0.2873	0.02523	0.088	3.096	1.759	232	997	0.237	0.338
Attitudes towards people with HIV/AIDS	0.3035	0.02356	0.078	2.384	1.544	211	909	0.256	0.351
Women who have been tested for HIV	0.4901	0.01987	0.041	1.573	1.254	232	997	0.450	0.530
Knowledge of mother-to-child transmission of HIV	0.3709	0.01968	0.053	1.654	1.286	232	997	0.332	0.410

	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Population Size	Unweighted Count	Confidence limits	
Underweight prevalence	0.3218	0.02024	0.063	1.831	1.353	250	976	0.281	0.362
Tuberculosis immunization coverage	0.8552	0.04267	0.050	3.147	1.774	54	215	0.770	0.941
Polio immunization coverage	0.6933	0.04495	0.065	2.034	1.426	54	215	0.603	0.783
Immunization coverage for DPT	0.6864	0.04149	0.060	1.711	1.308	54	215	0.603	0.769
Measles immunization coverage	0.6010	0.04540	0.076	1.839	1.356	54	215	0.510	0.692
Fully immunized children	0.4575	0.03938	0.086	1.337	1.156	54	215	0.379	0.536
Acute respiratory infection in last two weeks	0.0765	0.01219	0.159	2.252	1.501	279	1,072	0.052	0.101
Antibiotic treatment of suspected pneumonia	0.5325	0.04873	0.092	0.782	0.884	21	83	0.435	0.630
Diarrhoea in last two weeks	0.0773	0.01036	0.134	1.611	1.269	279	1,072	0.057	0.098
Received ORT or increased fluids and continued feeding	0.1727	0.06526	0.378	2.385	1.544	22	81	0.042	0.303
Fever in last two weeks	0.1225	0.01581	0.129	2.489	1.578	279	1,072	0.091	0.154
Antimalarial treatment	0.4310	0.04165	0.097	0.920	0.959	34	131	0.348	0.514
Support for learning	0.4378	0.03086	0.070	4.143	2.036	279	1,072	0.376	0.499
Birth registration	0.1927	0.02153	0.112	3.190	1.786	279	1,072	0.150	0.236

Appendix D: Data Quality Tables

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

		Household population of women age 10-54	Interviewed women age 15-49		4
		Number	Number	Percent	Percentage of eligible women interviewed
Age	10-14	369	.	.	.
	15-19	248	200	21.7	80.5
	20-24	217	205	22.2	94.5
	25-29	166	159	17.3	95.9
	30-34	135	134	14.5	99.3
	35-39	100	91	9.9	90.8
	40-44	79	76	8.2	95.9
	45-49	58	58	6.2	100.0
	50-54	97	.	.	.
	15-49	1,003	923	100.0	92.0

Appendix E: MICS Indicators - Numerators and Denominators

INDICATOR		NUMERATOR	DENOMINATOR
1	Under-five mortality rate	Probability of dying by exact age 5 years	
2	Infant mortality rate	Probability of dying by exact age 1 year	
3	Maternal mortality ratio	Number of deaths of women from pregnancy-related causes in a given year	Number of live births in the year (expressed per 100,000 births)
4	Skilled attendant at delivery	Number of women aged 15-49 years with a birth in the 2 years preceding the survey that were attended during childbirth by skilled health personnel	Total number of women surveyed aged 15-49 years with a birth in the 2 years preceding the survey
5	Institutional deliveries	Number of women aged 15-49 years with a birth in the 2 years preceding the survey that delivered in a health facility	Total number of women surveyed aged 15-49 years with a birth in 2 years preceding the survey
6	Underweight prevalence	Number of children under age five that fall below minus two standard deviations from the median weight for age of the NCHS/WHO standard (moderate and severe); number that fall below minus three standard deviations (severe)	Total number of children under age five that were weighed
7	Stunting prevalence	Number of children under age five that fall below minus two standard deviations from the median height for age of the NCHS/WHO standard (moderate and severe); number that fall below minus three standard deviations (severe)	Total number of children under age five measured
8	Wasting prevalence	Number of children under age five that fall below minus two standard deviations from the median weight for height of the NCHS/WHO standard (moderate and severe); number that fall below minus three standard deviations (severe)	Total number of children under age five weighed and measured
9	Low-birthweight infants	Number of last live births in the 2 years preceding the survey weighing below 2,500 grams	Total number of last live births in the 2 years preceding the survey
10	Infants weighed at birth	Number of last live births in the 2 years preceding the survey that were weighed at birth	Total number of last live births in the 2 years preceding the survey
11	Use of improved drinking water sources	Number of household members living in households using improved sources of drinking water	Total number of household members in households surveyed
12	Use of improved sanitation facilities	Number of household members using improved sanitation facilities	Total number of household members in households surveyed
13	Water treatment	Number of household members using water that has been treated	Total number of household members in households surveyed
14	Disposal of child's faeces	Number of children under age three whose (last) stools were disposed of safely	Total number of children under age three surveyed
15	Exclusive breastfeeding rate	Number of infants aged 0-5 months that are exclusively breastfed	Total number of infants aged 0-5 months

INDICATOR		NUMERATOR	DENOMINATOR
			surveyed
16	Continued breastfeeding rate	Number of infants aged 12-15 months, and 20-23 months, that are currently breastfeeding	Total number of children aged 12-15 months and 20-23 months surveyed
17	Timely complementary feeding rate	Number of infants aged 6-9 months that are receiving breast milk and complementary foods	Total number of infants aged 6-9 months surveyed
18	Frequency of complementary feeding	Number of infants aged 6-11 months that receive breast milk and complementary food at least the minimum recommended number of times per day (two times per day for infants aged 6-8 months, three times per day for infants aged 9-11 months)	Total number of infants aged 6-11 months surveyed
19	Adequately fed infants	Number of infants aged 0-11 months that are appropriately fed: infants aged 0-5 months that are exclusively breastfed and infants aged 6-11 months that are breastfed and ate solid or semi-solid foods the appropriate number of times (see above) yesterday	Total number of infants aged 0-11 months surveyed
20	Antenatal care	Number of women aged 15-49 years that were attended at least once during pregnancy in the 2 years preceding the survey by skilled health personnel	Total number of women surveyed aged 15-49 years with a birth in the 2 years preceding the survey
21	Contraceptive prevalence	Number of women currently married or in union aged 15-49 years that are using (or whose partner is using) a contraceptive method (either modern or traditional)	Total number of women aged 15-49 years that are currently married or in union
22	Antibiotic treatment of suspected pneumonia	Number of children aged 0-59 months with suspected pneumonia in the previous 2 weeks receiving antibiotics	Total number of children aged 0-59 months with suspected pneumonia in the previous 2 weeks
23	Care-seeking for suspected pneumonia	Number of children aged 0-59 months with suspected pneumonia in the previous 2 weeks that are taken to an appropriate health provider	Total number of children aged 0-59 months with suspected pneumonia in the previous 2 weeks
24	Solid fuels	Number of residents in households that use solid fuels (wood, charcoal, crop residues and dung) as the primary source of domestic energy to cook	Total number of residents in households surveyed
25	Tuberculosis immunization coverage	Number of children aged 12-23 months receiving BCG vaccine before their first birthday	Total number of children aged 12-23 months surveyed
26	Polio immunization coverage	Number of children aged 12-23 months receiving OPV3 vaccine before their first birthday	Total number of children aged 12-23 months surveyed
27	Immunization coverage for diphtheria, pertussis and tetanus (DPT)	Number of children aged 12-23 months receiving DPT3 vaccine before their first birthday	Total number of children aged 12-23 months surveyed
28	Measles immunization coverage	Number of children aged 12-23 months receiving measles vaccine before their first birthday	Total number of children aged 12-23 months surveyed
29	Hepatitis B immunization coverage	Number of children aged 12-23 months immunized against hepatitis before their first birthday	Total number of children aged 12-23 months surveyed
30	Yellow fever immunization coverage	Number of children aged 12-23 months immunized against yellow fever before their first birthday	Total number of children aged 12-23 months surveyed

INDICATOR		NUMERATOR	DENOMINATOR
31	Fully immunized children	Number of children aged 12-23 months receiving DPT1-3, OPV-1-3, BCG and measles vaccines before their first birthday	Total number of children aged 12-23 months surveyed
32	Neonatal tetanus protection	Number of mothers with live births in the previous year that were given at least two doses of tetanus toxoid (TT) vaccine within the appropriate interval prior to giving birth	Total number of women surveyed aged 15-49 years with a birth in the year preceding the survey
33	Use of oral rehydration therapy (ORT)	Number of children aged 0-59 months with diarrhoea in the previous 2 weeks that received oral rehydration salts and/or an appropriate household solution	Total number of children aged 0-59 months with diarrhoea in the previous 2 weeks
34	Home management of diarrhoea	Number of children aged 0-59 months with diarrhoea in the previous 2 weeks that received more fluids AND continued eating somewhat less, the same or more food	Total number of children aged 0-59 months with diarrhoea in the previous 2 weeks
35	Received ORT or increased fluids and continued feeding	Number of children aged 0-59 months with diarrhoea that received ORT (oral rehydration salts or an appropriate household solution) or received more fluids AND continued eating somewhat less, the same or more food	Total number of children aged 0-59 months with diarrhoea in the previous 2 weeks
36	Household availability of insecticide-treated nets (ITNs)	Number of households with at least one mosquito net, either permanently treated or treated within the previous year	Total number of households surveyed
37	Under-fives sleeping under insecticide- treated nets	Number of children aged 0-59 months that slept under an insecticide-treated mosquito net the previous night	Total number of children aged 0-59 months surveyed
38	Under-fives sleeping under mosquito nets	Number of children aged 0-59 months that slept under a mosquito net the previous night	Total number of children aged 0-59 months surveyed
39	Antimalarial treatment (under-fives)	Number of children aged 0-59 months reported to have had fever in the previous 2 weeks that were treated with an appropriate antimalarial within 24 hours of onset	Total number of children aged 0-59 months reported to have had fever in the previous 2 weeks
40	Intermittent preventive malaria treatment (pregnant women)	Number of women receiving appropriate intermittent medication to prevent malaria (defined as at least 2 doses of SP/Fansidar) during the last pregnancy, leading to a live birth within the 2 years preceding the survey	Total number of women that have had a live birth within the 2 years preceding the survey
41	Iodized salt consumption	Number of households with salt testing 15 parts per million or more of iodine/iodate	Total number of households surveyed
42	Vitamin A supplementation (under-fives)	Number of children aged 6-59 months receiving at least one high-dose vitamin A supplement in the previous 6 months	Total number of children aged 6-59 months surveyed
43	Vitamin A supplementation (post-partum mothers)	Number of women with a live birth in the 2 years preceding the survey that received a high-dose vitamin A supplement within 8 weeks after birth	Total number of women that had a live birth in the 2 years preceding the survey
44	Content of antenatal care	Number of women with a live birth in the 2 years preceding the survey that received antenatal care during the last pregnancy	Total number of women with a live birth in the 2 years preceding the survey
45	Timely initiation of breastfeeding	Number of women with a live birth in the 2 years preceding the survey that put the newborn infant to the breast within 1 hour of birth	Total number of women with a live birth in the 2 years preceding the survey
46	Support for learning	Number of children aged 0-59 months living in households in which an adult has engaged in four or more activities to promote learning and school readiness in the past 3 days	Total number of children aged 0-59 months surveyed
47	Father's support for learning	Number of children aged 0-59 months whose father has engaged in one or more activities to promote	Total number of children aged 0-59 months

INDICATOR		NUMERATOR	DENOMINATOR
		learning and school readiness in the past 3 days	
48	Support for learning: children's books	Number of households with three or more children's books	Total number of households surveyed
49	Support for learning: non-children's books	Number of households with three or more non-children's books	Total number of households surveyed
50	Support for learning: materials for play	Number of households with three or more materials intended for play	Total number of households surveyed
51	Non-adult care	Number of children aged 0-59 months left alone or in the care of another child younger than 10 years of age in the past week	Total number of children aged 0-59 months surveyed
52	Pre-school attendance	Number of children aged 36-59 months that attend some form of early childhood education programme	Total number of children aged 36-59 months surveyed
53	School readiness	Number of children in first grade that attended some form of pre-school the previous year	Total number of children in the first grade surveyed
54	Net intake rate in primary education	Number of children of school-entry age that are currently attending first grade	Total number of children of primary- school entry age surveyed
55	Net primary school attendance rate	Number of children of primary-school age currently attending primary or secondary school	Total number of children of primary- school age surveyed
56	Net secondary school attendance rate	Number of children of secondary-school age currently attending secondary school or higher	Total number of children of secondary-school age surveyed
57	Children reaching grade five	Proportion of children entering the first grade of primary school that eventually reach grade five	
58	Transition rate to secondary school	Number of children that were in the last grade of primary school during the previous school year that attend secondary school	Total number of children that were in the last grade of primary school during the previous school year surveyed
59	Primary completion rate	Number of children (of any age) attending the last grade of primary school (excluding repeaters)	Total number of children of primary school completion age (age appropriate to final grade of primary school) surveyed
60	Adult literacy rate	Number of women aged 15-24 years that are able to read a short simple statement about everyday life	Total number of women aged 15-24 years surveyed
61	Gender parity index	Proportion of girls in primary and secondary education	Proportion of boys in primary and secondary education
62	Birth registration	Number of children aged 0-59 months whose births are reported registered	Total number of children aged 0-59 months surveyed
63	Prevalence of female genital mutilation/cutting (FGM/C)	Number of women aged 15-49 years that reported undergoing any form of genital mutilation/cutting	Total number of women aged 15-49 years surveyed
64	Prevalence of extreme form of FGM/C	Number of women aged 15-49 years that reported undergoing an extreme form of genital mutilation/cutting (such as infibulation)	Total number of women aged 15-49 years surveyed

INDICATOR		NUMERATOR	DENOMINATOR
65	Prevalence of FGM/C among daughters	Number of women aged 15-49 years that reported that at least one daughter had undergone female genital mutilation/cutting	Total number of women aged 15-49 years surveyed that have at least one living daughter
66	Approval for FGM/C	Number of women aged 15-49 years favouring the continuation of female genital mutilation/cutting	Total number of women aged 15-49 years surveyed
67	Marriage before age 15 and age 18	Number of women that were first married or in union by the exact age of 15 and the exact age of 18, by age groups	Total number of women aged 15-49 years and 20-49 years surveyed, by age groups
68	Young women aged 15-19 years currently married or in union	Number of women aged 15-19 years currently married or in union	Total number of women aged 15-19 years surveyed
69	Spousal age difference	Number of women married/in union aged 15-19 years and 20-24 years with a difference in age of 10 or more years between them and their current spouse	Total number of women aged 15-19 and 20-24 years surveyed that are currently married or in union
70	Polygyny	Number of women in a polygynous union	Total number of women aged 15-49 years surveyed that are currently married or in union
71	Child labour	Number of children aged 5-14 years that are involved in child labour	Total number of children aged 5-14 years surveyed
72	Labourer students	Number of children aged 5-14 years involved in child labour activities that attend school	Total number of children aged 5-14 years involved in child labour activities
73	Student labourers	Number of children aged 5-14 years attending school that are involved in child labour activities	Total number of children aged 5-14 years attending school
74	Child discipline	Number of children aged 2-14 years that (1) experience only non-violent aggression, (2) experience psychological aggression as punishment, (3) experience minor physical punishment, (4) experience severe physical punishment	Total number of children aged 2-14 years selected and surveyed
75	Prevalence of orphans	Number of children under age 18 with at least one dead parent	Total number of children under age 18 surveyed
76	Prevalence of vulnerable children	Number of children under age 18 that have a chronically ill parent, that live in a household where an adult aged 18-59 years has died in the past year, or that live in a household where an adult aged 18-59 years has been chronically ill in the past year	Total number of children under age 18 surveyed
77	School attendance of orphans versus non-orphans	Proportion of double orphans (both mother and father dead) aged 10-14 years attending school	Proportion of children aged 10-14 years, both of whose parents are alive, that are living with at least one parent and are attending school
78	Children's living arrangements	Number of children aged 0-17 years not living with a biological parent	Total number of children aged 0-17 years surveyed
79	Malnutrition among children orphaned and made vulnerable by HIV/AIDS	Proportion of orphaned or vulnerable children under age five that are moderately or severely underweight, of all orphaned and vulnerable children under age five that are weighed	Proportion of children not classified as orphaned or vulnerable under age five that are moderately or severely underweight, of all children not classified as orphaned or

INDICATOR		NUMERATOR	DENOMINATOR
			vulnerable under age five that are weighed
80	Early sex among children orphaned and made vulnerable by HIV/AIDS	Proportion of orphaned and vulnerable children aged 15-17 years that had sex before age 15, of all orphaned and vulnerable children aged 15-17 years surveyed	Proportion of children not classified as orphaned or vulnerable aged 15-17 years that had sex before age 15, of all children not classified as orphaned or vulnerable aged 15-17 years surveyed
81	External support to children orphaned and made vulnerable by HIV/AIDS	Number of orphaned and vulnerable children under age 18 whose households received free basic external support in caring for the child	Number of orphaned and vulnerable children under age 18 surveyed
82	Comprehensive knowledge about HIV prevention among young people	Number of women aged 15-24 years that correctly identify two ways of avoiding HIV infection and reject three common misconceptions about HIV transmission	Total number of women aged 15-24 years surveyed
83	Condom use with non-regular partners	Number of women aged 15-24 years reporting the use of a condom during sexual intercourse with their last non-marital, non-cohabiting sex partner in the previous 12 months	Total number of women aged 15-24 years surveyed that had a non-marital, non-cohabiting partner in the previous 12 months
84	Age at first sex among young people	Number of women aged 15-24 years that have had sex before age 15	Total number of women aged 15-24 surveyed
85	Higher risk sex in the last year	Number of sexually active women aged 15-24 years that have had sex with a non-marital, non-cohabitating partner in the previous 12 months	Total number of women aged 15-24 that were sexually active in the previous 12 months
86	Attitude towards people with HIV/AIDS	Number of women expressing acceptance on all four questions about people with HIV or AIDS	Total number of women surveyed
87	Women who know where to be tested for HIV	Number of women that state knowledge of a place to be tested	Total number of women surveyed
88	Women who have been tested for HIV	Number of women that report being tested for HIV	Total number of women surveyed
89	Knowledge of mother-to-child transmission of HIV	Number of women that correctly identify all three means of vertical transmission	Total number of women surveyed
90	Counselling coverage for the prevention of mother-to-child transmission of HIV	Number of women that gave birth in the previous 24 months and received antenatal care reporting that they received counselling on HIV/AIDS during this care	Total number of women that gave birth in the previous 24 months surveyed
91	Testing coverage for the prevention of mother-to-child transmission of HIV	Number of women that gave birth in the previous 24 months and received antenatal care reporting that they received the results of an HIV test during this care	Total number of women that gave birth in the previous 24 months surveyed
92	Age-mixing among sexual partners	Number of women aged 15-24 years that had sex in the past 12 months with a partner who was 10 or more years older than they were	Total number of sexually active women aged 15-24 years surveyed
93	Security of tenure	Number of household members living in urban households that lack formal documentation for their residence or that feel at risk of eviction	Number of urban household members in households surveyed

INDICATOR		NUMERATOR	DENOMINATOR
94	Durability of housing	Number of household members living in urban dwellings that are not considered durable	Number of urban household members in households surveyed
95	Slum household	Number of household members living in urban slums	Number of household members in urban households surveyed
96	Source of supplies	Number of children (or households) for whom supplies were obtained from public providers, presented separately for each type of supply: insecticide-treated mosquito nets, oral rehydration salts, antibiotics and antimalarials	Total number of children (or households) for whom supplies were obtained
97	Cost of supplies	Median cost of supplies obtained, presented separately for each type of supply and whether sourced from public or private providers: insecticide-treated mosquito nets, oral rehydration salts, antibiotics and antimalarials.	Total number of children (or households) for whom supplies were obtained
98	Unmet need for family planning	Number of women that are currently married or in union that are fecund and want to space their births or limit the number of children they have and that are not currently using contraception	Total number of women interviewed that are currently married or in union
99	Demand satisfied for family planning	Number of women currently married or in union that are currently using contraception	Number of women currently married or in union that have an unmet need for contraception or that are currently using contraception
100	Attitudes towards domestic violence	Number of women that consider 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 surveyed
101	Child disability	Number of children aged 2-9 years with at least one of nine reported disabilities: (1) delay in sitting, standing or walking, (2) difficulty seeing, either in the daytime or at night, (3) appears to have difficulty hearing, (4) difficulty in understanding instructions, (5) difficulty walking or moving arms or has weakness or stiffness of limbs, (6) has fits, becomes rigid, loses consciousness, (7) does not learn to do things like other children his/her age, (8) cannot speak or cannot be understood in words, (9) appears mentally backward, dull or slow	Total number of children aged 2-9 surveyed







FORM-A: HOUSEHOLD

H1. Identification — *ENGLISH*

#	Question	Options
HH-A	Province Name & Code _____	☐
HH-B	District Name & Code _____	☐☐
HH1	Cluster Name & Number ☐☐	HH-C Stratum [Child < 3 = 1/Other = 2] ☐
HH2	HH No.	☐☐☐
HH3	Interviewer's Name & No. _____	☐☐☐
HH4	Supervisor Name & No. _____	☐☐☐
HH5	Day/Month/Year of Interview	☐☐/☐☐/☐☐☐☐
HH6	Urban/Rural (Urban=1, Rural=2)	☐
HH7	Name of the Head of the HH (To be filled-in after completing Section H.2)	_____
HH8 to HH14 be filled-in after all questions for the HH have been completed		
HH8	Result of HH interview	Completed ..... 1 Not at home ..... 2 Refused ..... 3 HH not found/destroyed ..... 4 Other (*specify*_____) .. 6
HH9	Respondent to HH Form: Name: _____	Line No.: ☐☐
HH10	Total No. of HH members	☐☐
HH11	No. of women 15-49 eligible ☐☐	HH12 No. of women 15-49 forms completed ☐☐
HH13	No. of children < 5 eligible ☐☐	HH14 No. of children < 5 forms completed ☐☐
HH16	Editor: Name and Code _____ ☐☐☐	HH17 Data Entry: Name and Code _____ ☐☐

Introduction/Consent

HELLO. MY NAME IS (.....) AND I AM WORKING WITH THE KENYA NATIONAL BUREAU OF STATISTICS (KNBS), NAIROBI. WE ARE DOING A SURVEY TO COLLECT INFORMATION ABOUT FAMILY HEALTH AND EDUCATION, FOCUSING ON CHILDREN AND WOMEN, WITH UNICEF SUPPORT. I WOULD LIKE TO TALK TO YOU ABOUT THIS. THE INTERVIEW WILL TAKE ABOUT 30 MINUTES. ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND EVENTUALLY BE ANONYMOUS. DURING THIS TIME I WOULD LIKE TO SPEAK WITH THE HOUSEHOLD HEAD AND MOTHER OR OTHERS WHO TAKE CARE OF CHILDREN IN THE HOUSEHOLD.

THE INFORMATION YOU PROVIDE WILL HELP THE GOVERNMENT AND DEVELOPMENT AGENCIES IN PLANNING AND IMPLEMENTING DEVELOPMENTAL PROGRAMS.

MAY I START THE INTERVIEW NOW?

H.2: HH Member Listing — HL

List the head of the HH in line 01. List all HH members (HL2), their relationship to the HH head (HL3), and their sex (HL4)
Then ask: ARE THERE ANY OTHERS WHO LIVE HERE, EVEN IF THEY ARE NOT AT HOME NOW? THESE MAY INCLUDE CHILDREN IN SCHOOL OR AT WORK. If yes, complete listing.

Then, ask questions starting with HL5 for each person at a time. Add a continuation sheet if there is more than 15 members. Tick here if continuation sheet used ☐

					Eligible for :			If age 18-59	For children age 0-17 year ask HL9 to HL12A					
					Women Interview	Child Labor	Under-5 Interview							
HL1 LINE NO.	HL2 FIRST, PLEASE TELL ME THE NAME OF EACH PERSON WHO USUALLY LIVES IN THIS HOUSEHOLD, STARTING WITH THE HEAD OF THE HH?	HL3 WHAT IS THE RELATION-SHIP OF (name) TO THE HEAD OF THE HH?	HL4 IS (name) MALE OR FEMALE? 1 MALE 2 FEMALE	HL5 HOW OLD IS (name)? HOW OLD WAS (name) ON HIS/HER LAST BIRTHDAY? [record in completed years] 98=DK*	HL6 [Circle line no. if woman is age 15-49]	HL7 [For child age 5-14 years] WHO IS THE MOTHER OR PRIMARY CARETAKER OF (name)? [record line no. of mother/ caretaker]	HL8 [For child < 5] WHO IS THE MOTHER OR PRIMARY CARETAKER OF (name)? [record line no. of mother/ caretaker]	HL8A HAS (name) BEEN VERY SICK FOR AT LEAST 3 MONTHS DURING THE PAST 12 MONTHS?	HL9 IS (name's) NATURAL MOTHER ALIVE? 1-YES 2 - NO ⇘ HL11 8 - DK ⇘ HL11	HL10 [If alive:] DOES (name's) NATURAL MOTHER LIVE IN THIS HH? [Record line no. of mother or 00 for 'no']	HL10A [If '00' in HL10] HAS (name's) MOTHER BEEN VERY SICK FOR AT LEAST 3 MONTHS IN THE PAST 12 MONTHS	HL11 IS (name's) NATURAL FATHER ALIVE? 1 YES 2 - NO ⇘ NEXT LINE 8 - DK ⇘ NEXT LINE	HL12 [If alive:] DOES (name's) NATURAL FATHER LIVE IN THIS HH? [Record line no. of father or 00 for 'no']	HL12A [If '00' in HL12] HAS (name's) FATHER BEEN VERY SICK FOR AT LEAST 3 MONTHS IN THE PAST 12 MONTHS
Line	Name	Relation	M F	Age	15-49	Mother/CT	Mother/CT	Y N DK	Y N DK	Mother	Y N DK	Y N DK	Father	Y N DK
01		0 1	1 2	☐☐	01	☐☐	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8
02		☐☐	1 2	☐☐	02	☐☐	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8
03		☐☐	1 2	☐☐	03	☐☐	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8
04		☐☐	1 2	☐☐	04	☐☐	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8
05		☐☐	1 2	☐☐	05	☐☐	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8
06		☐☐	1 2	☐☐	06	☐☐	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8
07		☐☐	1 2	☐☐	07	☐☐	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8
08		☐☐	1 2	☐☐	08	☐☐	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8
09		☐☐	1 2	☐☐	09	☐☐	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8

					Eligible for :			If age 18-59	For children age 0-17 year ask HL9 to HL12A					
HL1 LINE NO.	HL2 FIRST, PLEASE TELL ME THE NAME OF EACH PERSON WHO USUALLY LIVES IN THIS HOUSEHOLD, STARTING WITH THE HEAD OF THE HH?	HL3 WHAT IS THE RELATION-SHIP OF (name) TO THE HEAD OF THE HH?	HL4 IS (name) MALE OR FEMALE? 1 MALE 2 FEMALE	HL5 HOW OLD IS (name)? HOW OLD WAS (name) ON HIS/HER LAST BIRTHDAY? [record in completed years] 98=DK*	HL6 [Circle line no. if woman is age 15-49]	HL7 [For child age 5-14 years] WHO IS THE MOTHER OR PRIMARY CARETAKER OF (name)? [record line no. of mother/ caretaker]	HL8 [For child < 5] WHO IS THE MOTHER OR PRIMARY CARETAKER OF (name)? [record line no. of mother/ caretaker]	HL8A HAS (name) BEEN VERY SICK FOR AT LEAST 3 MONTHS DURING THE PAST 12 MONTHS?	HL9 IS (name's) NATURAL MOTHER ALIVE? 1-YES 2 - NO ⇨ HL11 8 - DK ⇨ HL11	HL10 [If alive:] DOES (name's) NATURAL MOTHER LIVE IN THIS HH? [Record line no. of mother or 00 for 'no']	HL10A [If '00' in HL10] HAS (name's) MOTHER BEEN VERY SICK FOR AT LEAST 3 MONTHS IN THE PAST 12 MONTHS	HL11 IS (name's) NATURAL FATHER ALIVE? 1 YES 2 - NO ⇨ NEXT LINE 8 - DK ⇨ NEXT LINE	HL12 [If alive:] DOES (name's) NATURAL FATHER LIVE IN THIS HH? [Record line no. of father or 00 for 'no']	HL12A [If '00' in HL12] HAS (name's) FATHER BEEN VERY SICK FOR AT LEAST 3 MONTHS IN THE PAST 12 MONTHS
Line	Name	Relation	M F	Age	15-49	Mother/CT	Mother/CT	Y N DK	Y N DK	Mother	Y N DK	Y N DK	Father	Y N DK
10		☐☐	1 2	☐☐	10	☐☐	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8
11		☐☐	1 2	☐☐	11	☐☐	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8
12		☐☐	1 2	☐☐	12	☐☐	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8
13		☐☐	1 2	☐☐	13	☐☐	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8
14		☐☐	1 2	☐☐	14	☐☐	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8
15		☐☐	1 2	☐☐	15	☐☐	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8	1 **2** **8**	☐☐	1 2 8
ARE THERE ANY OTHER PERSONS LIVING HERE - EVEN IF THEY ARE NOT MEMBERS OF YOUR FAMILY OR DO NOT HAVE PARENTS LIVING IN THIS HH? INCLUDING CHILDREN AT SCHOOL OR WORK? [If yes, insert child's name and complete the information. Fill in the totals below:]														
*HL5: Ascertain age for all persons below 60 years; Code '00' for children below 1 year and '97' for 97+ years.					Women 15-49	Children 5-14	Children under 5	Very sick (1)	Mother dead (2)		Mother sick (1)	Father dead (2)		Father sick (1)
TOTALS					☐☐	☐☐	☐☐	☐☐	☐☐		☐☐	☐☐		☐☐

Codes for HL3 : Relationship to the Head of HH:

01 - Head
02 - Wife or Husband
03 - Son or Daughter
04 - Son-in-law or daughter-in-law
05 - Grand child
06 - Parent
07 - Parent-in-law
08 - Brother or Sister
09 - Brother-in-law or sister-in-law
10 - Uncle/Aunt
11 - Niece/Nephew by blood
12 - Niece/Nephew by marriage
13 - Other relative
14 - Adopted/Foster/Step child
15 - Not related
98 - Don't know

H.3: Education (For all age 5 and above) ED

For members age 5 and above							Members age 5-24 years only								
ED1 Line No.	ED1A Name	ED1B How old is (name)? How old was (name) on his/her last birthday? [Record completed years]	ED2 HAS (name) EVER ATTENDED SCHOOL OR PRE-SCHOOL? 1 Yes 2 No ⇨ Next Line		ED3 WHAT IS THE HIGHEST LEVEL OF SCHOOL (name) ATTENDED? WHAT IS THE HIGHEST CLASS (name) COMPLETED AT THIS LEVEL? If < 1 grade, enter 00		ED4 DURING THIS (2008) SCHOOL YEAR, DID (name) ATTEND SCHOOL OR PRE-SCHOOL ANY TIME? 1 Yes 2 No ⇨ED7		ED5 SINCE LAST (DAY OF THE WEEK), HOW MANY DAYS DID (name) ATTEND SCHOOL? [Record no. of days]	ED6 DURING THIS SCHOOL YEAR 2008, WHICH LEVEL AND CLASS IS (name) ATTENDING?		ED7 DID (name) ATTEND SCHOOL OR PRESCHOOL AT ANY TIME DURING THE PREVIOUS SCHOOL YEAR 2007? 1 Yes 2 No ⇨ Next Line 8 DK ⇨Next Line			ED8 DURING THAT PREVIOUS SCHOOL YEAR 2007, WHICH LEVEL AND CLASS DID (name) ATTENDED?	
Line	Name	Age	Y	N	Level	Grade	Y	N	Days	Level	Grade	Y	N	DK	Level	Grade
			1	2	☐	☐☐	1	2	☐	☐	☐☐	1	2	8	☐	☐☐
			1	2	☐	☐☐	1	2	☐	☐	☐☐	1	2	8	☐	☐☐
			1	2	☐	☐☐	1	2	☐	☐	☐☐	1	2	8	☐	☐☐
			1	2	☐	☐☐	1	2	☐	☐	☐☐	1	2	8	☐	☐☐
			1	2	☐	☐☐	1	2	☐	☐	☐☐	1	2	8	☐	☐☐
			1	2	☐	☐☐	1	2	☐	☐	☐☐	1	2	8	☐	☐☐
			1	2	☐	☐☐	1	2	☐	☐	☐☐	1	2	8	☐	☐☐
			1	2	☐	☐☐	1	2	☐	☐	☐☐	1	2	8	☐	☐☐
			1	2	☐	☐☐	1	2	☐	☐	☐☐	1	2	8	☐	☐☐
			1	2	☐	☐☐	1	2	☐	☐	☐☐	1	2	8	☐	☐☐

CODES FOR ED3, ED6 & ED8

0 - Pre-School
1 - Primary
2 - Post-Primary, Vocational
3 - Secondary, 'A' Level
4 - College – Middle Level
5 - University
6 - Non-standard curriculum
8 – Don't know

H.4: Water & Sanitation — WS

#	Question	Options	Skip
WS1	WHAT IS THE MAIN SOURCE OF DRINKING WATER FOR MEMBERS OF YOUR HOUSEHOLD?	**Piped water** **Piped into dwelling** ..... 11 **Piped into yard or plot** ..... 12 **Public tap/standpipe** ..... 13 **Pipe water from neighbour's house** ..... 14 **Tubewell/borehole with hand-pump** ..... 21 **Tubewell/borehole with powered pump** ..... 22 **Dug well** **Protected well** ..... 31 **Unprotected well** ..... 32 **Water from spring** **Protected spring** ..... 41 **Unprotected spring** ..... 42 **Rainwater collection** ..... 51 **Tanker-truck** ..... 61 **Cart with small tank/drum** ..... 71 **Surface water (river, stream, dam, lake, pond, canal, irrigation channel)** ..... 81 Bottled water ..... 91 Other (*specify*_____) 96	11⇨WS5 12⇨WS5 13-81 ⇨WS3 96⇨WS3
WS2	WHAT IS THE MAIN SOURCE OF WATER USED BY YOUR HOUSEHOLD FOR OTHER PURPOSES SUCH AS COOKING AND HANDWASHING?	Piped water **Piped into dwelling** ..... 11 **Piped into yard or plot** ..... 12 Public tap/standpipe ..... 13 Pipe water from neighbour's house ..... 14 Tubewell/borehole with hand-pump ..... 21 Tubewell/borehole with powered pump ..... 22 Dug well Protected well ..... 31 Unprotected well ..... 32 Water from spring Protected spring ..... 41 Unprotected spring ..... 42 Rainwater collection ..... 51 Tanker-truck ..... 61 Cart with small tank/drum ..... 71 Surface water (river, stream, dam, lake, pond, canal, irrigation channel) ..... 81 Other (*specify*_____) 96	11⇨WS5 12⇨WS5
WS3	HOW LONG DOES IT TAKE TO GO THERE, GET WATER AND COME BACK? [Code '900' for over 15+ hours]	No. of minutes ..... ☐☐☐ **Water on premises** ..... **995** Don't know 998	995⇨WS4A
WS4	WHO USUALLY GOES TO THIS SOURCE TO FETCH THE WATER FOR YOUR HH? **Probe:** IS THIS PERSON UNDER AGE 15? WHAT SEX?	Adult woman (15+ years) ..... A Adult man (15+ years) ..... B Female child (under 15) ..... C Male child (under 15) ..... D Don't know ..... Z	

H.4: Water & Sanitation — WS

#	Question	Options	Skip
WS4A	WHAT IS THE MAIN TYPE OF CONTAINER USED FOR STORING DRINKING WATER IN THIS HOUSEHOLD?	Jerry can/Narrow neck container with lid ... 1 Jerry can/Narrow neck container without lid ... 2 Open container with lid ... 3 Open container without lid ... 4 Others (specify_____) ... 6	
WS4B	DURING THE LAST 12 MONTHS, DOES THIS HOUSEHOLD RECEIVE ANY CANS/CONTAINER THROUGH FREE DISTRIBUTION?	Yes ... 1 No ... 2 Don't know ... 8	
WS5	DO YOU TREAT YOUR WATER IN ANY WAY TO MAKE IT SAFER TO DRINK?	Yes ... 1 **No ... 2** **Don't know ... 8**	 2⇨WS7 8⇨WS7
WS6	WHAT DO YOU USUALLY DO TO THE WATER TO MAKE IT SAFER TO DRINK? ANYTHING ELSE? *[Record all items mentioned]*	Boil ... A Add bleach/chlorine ... B Strain it through a cloth ... C Use water filter (ceramic, sand, composite, etc.) ... D Solar dis-infection ... E Let it stand and settle ... F Other (*specify*_____) ... X Don't know ... Z	
WS7	WHAT KIND OF TOILET FACILITY DO MEMBERS OF YOUR HOUSEHOLD USUALLY USE? **If "flush" or "pour flush":** WHERE DOES IT FLUSH TO? **[Ask for permission & observe the facility]**	<u>Flush / pour flush</u> Flush to piped sewer system ... 11 Flush to septic tank ... 12 Flush to pit (latrine) ... 13 Flush to somewhere else ... 14 Flush to unknown place/not sure/DK where to flush ... 15 <u>Pit latrine</u> Ventilated Improved Pit latrine ... 21 Pit latrine with slab ... 22 Pit latrine without slab/open pit ... 23 Pit latrine with slab & cover ... 24 Pit latrine with slab & foot rest ... 25 Pit latrine with slab, cover & foot rest ... 26 Composting toilet ... 31 Bucket ... 41 Hanging toilet/hanging latrine ... 51 **No facilities or bush or field ... 95** Other (*specify*)_____ 96	 95⇨ WS11
WS8	DO YOU SHARE THIS FACILITY WITH OTHER HHS?	Yes ... 1 **No ... 2**	 2⇨ WS10
WS9	HOW MANY HHS IN TOTAL USE THIS TOILET FACILITY?	No. of HHs (if less than 10) ... ☐ Ten or more HHs ... 10 DK ... 98	

H.4: Water & Sanitation			WS
#	Question	Options	Skip
WS10	DO YOU HAVE A HAND-WASHING FACILITY OUTSIDE THE TOILET? **[Ask for permission & observe the facility]**	Seen the facility filled with water ..... 1 Seen the facility but no water ..... 2 Not seen ..... 3 No facility 4	
WS11	HOW DO MEMBERS OF YOUR HOUSEHOLD MAINLY GET RID OF THE GARBAGE (RUBBISH)?	Dumped in street/empty plot ..... 01 Garbage burnt ..... 02 Garbage buried ..... 03 Thrown in pit ..... 04 Composted ..... 05 Community disposal point ..... 06 Regular collection by government ..... 07 Infrequent collection by government ..... 08 Pays for private collection ..... 09 Other (specify_____) 96	

H.5: Household Characteristics — HC

#	Question	Options	Skip
HC1.A	WHAT IS THE RELIGION OF THE HEAD OF THIS HH?	Catholic ..... 1 Other Christian ..... 2 Muslim ..... 3 No Religion ..... 8 Others (specify) 9	
HC1.B	WHAT IS THE MOTHER TONGUE/NATIVE LANGUAGE OF THE HEAD OF THIS HOUSEHOLD?	Kiswahili ..... 01 Embu ..... 02 Kalenjin ..... 03 Kamba ..... 04 Kikuyu ..... 05 Kisii ..... 06 Luhya ..... 07 Luo ..... 08 Maasai ..... 09 Meru ..... 10 Mijikenda ..... 11 Somali ..... 12 Other (specify_____) 96	
HC2	HOW MANY ROOMS IN THIS HH ARE USED FOR SLEEPING?	No. of rooms ..... ☐☐	
HC3	**Observe and record:** Main material of the dwelling **floor**:	Natural floor Earth/sand ..... 11 Dung ..... 12 Rudimentary floor Wood planks ..... 21 Palm/bamboo ..... 22 Finished floor Parquet or polished wood ..... 31 Vinyl or asphalt strips ..... 32 Ceramic tiles ..... 33 Cement ..... 34 Carpet ..... 35 Other *(specify*_____) .. 96	
HC4	**Observe and record:** Main material of the **roof**:	Natural roofing No Roof ..... 11 Thatch/palm leaf ..... 12 Sod ..... 13 Rudimentary Roofing Rustic mat ..... 21 Palm/bamboo ..... 22 Wood planks ..... 23 Finished roofing Metal ..... 31 Wood ..... 32 Calamine/cement fiber ..... 33 Ceramic tiles ..... 34 Cement ..... 35 Roofing shingles ..... 36 Other *(specify*_____) 96	

H.5: Household Characteristics — HC

#	Question	Options	Skip
HC5	**Observe and record:** Main material of the **walls**:	Natural walls No walls ..... 11 Cane/palm/trunks ..... 12 Mud/dirt ..... 13 Rudimentary walls Bamboo with mud ..... 21 Stone with mud ..... 22 Uncovered adobe ..... 23 Plywood ..... 24 Carton ..... 25 Reused wood ..... 26 Finished walls Cement ..... 31 Stone with lime/cement ..... 32 Bricks ..... 33 Cement blocks ..... 34 Covered adobe ..... 35 Wood planks/shingles ..... 36 Other (*specify* _____) 96	
HC6	WHAT TYPE OF FUEL DOES YOUR HH MAINLY USE FOR COOKING?	**Electricity** ..... **01** **Liquid Propane Gas (LPG)** ..... **02** **Natural gas** ..... **03** **Biogas** ..... **04** Kerosene ..... 05 Coal / Lignite ..... 06 Charcoal ..... 07 Wood ..... 08 Straw/shrubs/grass ..... 09 Animal dung ..... 10 Agricultural crop residue ..... 11 Other (*specify* _____) 96	01 ⇨ HC8 02 ⇨ HC8 03 ⇨ HC8 04 ⇨ HC8
HC7	IN THIS HH, IS FOOD COOKED ON AN OPEN FIRE, AN OPEN STOVE OR A CLOSED STOVE? **Probe for type**	Open fire ..... 1 Open stove ..... 2 **Closed stove** ..... **3** **Other (*specify* _____)** **6**	 3 ⇨ HC8 6 ⇨ HC8
HC7A	DOES THE FIRE/STOVE HAVE A CHIMNEY OR A HOOD?	Yes ..... 1 No 2	
HC8	IS THE COOKING USUALLY DONE IN THE HOUSE, IN A SEPARATE BUILDING OR OUTDOORS?	In the house ..... 1 In a separate building ..... 2 Outdoors ..... 3 Other (*specify* _____) 6	

H.5: Household Characteristics				HC
#	Question	Options		Skip
HC9	DOES YOUR HOUSEHOLD HAVE	Yes	No	
	A. ELECTRICITY?	1	2	
	B. RADIO?	1	2	
	C. TELEVISION?	1	2	
	D. MOBILE TELEPHONE?	1	2	
	E. TELEPHONE (LAND LINE)?	1	2	
	F. REFRIGERATOR?	1	2	
	G. COMPUTER?	1	2	
	H. INTERNET CONNECTION?	1	2	
HC10	DOES ANY MEMBER OF YOUR HH OWN:			
	A. WATCH?	1	2	
	B. BICYCLE?	1	2	
	C. MOTORCYCLE OR SCOOTER?	1	2	
	D. AN ANIMAL DRAWN CART?	1	2	
	E. A CAR OR TRUCK?	1	2	
	F. A BOAT WITH A MOTOR?	1	2	
HC11	DOES ANY MEMBER OF THIS HOUSEHOLD OWN ANY LAND THAT CAN BE USED FOR AGRICULTURE?	Yes ..... 1 No 2		
HC12	DOES THIS HH OWN ANY LIVESTOCK, HERDS, OR FARM ANIMALS?	Yes ..... 1 No 2		

H.6: Use of Mosquito Net — TN

#	Question	Options		Skip
TN1	DOES YOUR HOUSEHOLD HAVE ANY MOSQUITO NETS THAT CAN BE USED WHILE SLEEPING?	Yes ..... 1 No 2		 2⇨(H.7)
TN2	HOW MANY MOSQUITO NETS DOES YOUR HH HAVE? [If 7 or more nets, record '7']	Number of nets ..... ☐		
	Ask the respondent to show you the nets in the household, if more than 2, tell them to show the two recently obtained ones.	**Most Recent [Net #1]**	**Last But One [Net #2]**	
TN3	MAY I HAVE A LOOK AT THE TWO NET(S) YOU HAVE OBTAINED LAST, TO ESTABLISH THE BRAND?	Observed ..... 1 Not observed 2	Observed ..... 1 Not observed 2	
TN4	HOW MANY MONTHS AGO DID YOUR HOUSEHOLD ACQUIRE THE LAST/LAST BUT ONE MOSQUITO NET? *[If answer is "12 months" or "1 year", probe to determine if net was obtained exactly 12 months ago or earlier or later.]*	No of Months ..... ☐☐ More than 3 years ..... 95 Don't know/not sure 98	No of Months ..... ☐☐ More than 3 years ..... 95 Don't know/not sure 98	
TN5	***Observe the brand/type** of mosquito net.* *If not observed ask:* WHAT BRAND IS THE NET?	Long lasting nets **Permanet ..... 1 ⇨ TN8** **Olyset ..... 2 ⇨ TN8** Other nets Supanet ..... 3 Other(sp_____) ..... 8 Don't know 9	Long lasting nets **Permanet ..... 1 ⇨ TN8** **Olyset ..... 2 ⇨ TN8** Other nets Supanet ..... 3 Other(sp_____) ..... 8 Don't know 9	
TN6	SINCE YOU GOT THIS MOSQUITO NET, WAS IT EVER SOAKED OR DIPPED IN A LIQUID TO KILL OR REPEL MOSQUITOS?	Yes ..... 1 **No ..... 2 ⇨ TN8** **Don't know ..... 9 ⇨ TN8**	Yes ..... 1 **No ..... 2 ⇨ TN8** **Don't know ..... 9 ⇨ TN8**	
TN7	HOW MANY MONTHS AGO WAS THIS NET LAST DIPPED OR SOAKED? *[If answer is "12 months" or "1 year", probe to determine if net was dipped or soaked exactly 12 months ago or earlier or later.]*	No of Months ..... ☐☐ More than 2 years ..... 95 Don't know/not sure 98	No of Months ..... ☐☐ More than 2 years ..... 95 Don't know/not sure 98	
TN8	DID ANYONE SLEPT UNDER THIS MOSQUITO NET LAST NIGHT? **If 'yes',** WHO SLEPT UNDER THIS NET LAST NIGHT? ANY ONE ELSE? *[Record the person's line number from the household schedule]* *[If more than 4 persons slept under a net, record the details of children and women first]* *[If guest, code '77' and none, code '00']*	**Name** — **Line No** 1 ..... ☐☐ 2 ..... ☐☐ 3 ..... ☐☐ 4 ..... ☐☐	**Name** — **Line No** 1 ..... ☐☐ 2 ..... ☐☐ 3 ..... ☐☐ 4 ..... ☐☐	

H.7: Orphan-hood/Vulnerability			OV
#	Question	Options	Skip
OV1	**Check HL5 (in section H.2): Any children 0-17?** ☐ **Yes ⇨ Continue to OV2** ☐ **No ⇨ Next Section [H.10]**		
OV2	I WOULD LIKE YOU TO THINK BACK OVER THE PAST 12 MONTHS. HAS ANY USUAL MEMBER OF YOUR HH DIED IN THE LAST 12 MONTHS?	Yes ..... 1 **No 2**	2⇨OV5
OV3	(OF THOSE WHO DIED IN THE PAST 12 MONTHS) WERE ANY OF THESE PEOPLE BETWEEN THE AGES OF 18 AND 59 YEARS?	Yes ..... 1 **No 2**	2⇨OV5
OV4	(OF THOSE WHO DIED IN THE PAST 12 MONTHS AND WERE BETWEEN THE AGES OF 18 AND 59 YRS.) WERE ANY OF THESE PEOPLE SERIOUSLY ILL FOR 3 OF THE 12 MONTHS BEFORE HE/SHE DIED?	**Yes ..... 1** No 2	1⇨OV8
OV5	**Check the following in the HH Listing** **1. Check totals for HL9 and HL11** ☐ **At least one mother or father dead ⇨ OV8** ☐ **No mother or father dead** **2. Check total for HL8A** ☐ **At least one adult aged 18-59 very sick 3 of last 12 months ⇨ OV8** ☐ **No adult aged 18-59 very sick 3 of last 12 months** **3. Check totals for HL10A and HL12A** ☐ **At least one mother or father ill 3 of last 12 months ⇨ OV8** ☐ **No mother or father ill 3 of last 12 months ⇨ Go to Section H.8**		

H.7: Orphan-hood — OV

		1ST CHILD	2ND CHILD	3RD CHILD	4TH CHILD
OV8	List all children aged 0-17 Years. Record names, line numbers and ages of all children, beginning with the first child and continue in order in which listed in the HH Listing section. Use a continuation sheet if there are more than 4 children aged 0-17 years. Ask all questions for one child before moving to the next child.				
	Name (from HL2)	.....	.....	.....	.....
	Line number (from HL1)	___ ___	___ ___	___ ___	___ ___
	Age (from HL5)	___ ___	___ ___	___ ___	___ ___
OV9	I WOULD LIKE TO ASK YOU ABOUT ANY FORMAL, ORGANIZED HELP OR SUPPORT THAT YOUR HH MAY HAVE RECEIVED FOR (name) AND FOR WHICH YOU DID NOT HAVE TO PAY. BY FORMAL ORGANIZED SUPPORT I MEAN HELP PROVIDED BY SOMEONE WORKING FOR A PROGRAM. THIS PROGRAM COULD BE GOVERNMENT, PRIVATE, RELIGIOUS, CHARITY, OR COMMUNITY-BASED. REMEMBER THIS SHOULD BE SUPPORT FOR WHICH YOU DID NOT PAY.				
OV10	NOW I WOULD LIKE TO ASK YOU ABOUT THE SUPPORT YOUR HH RECEIVED FOR (name). IN THE LAST 12 MONTHS, HAS YOUR HH RECEIVED ANY MEDICAL SUPPORT FOR (name), SUCH AS MEDICAL CARE, SUPPLIES OR MEDICINE?	Yes ..... 1 No ..... 2 DK 8	Yes ..... 1 No ..... 2 DK 8	Yes ..... 1 No ..... 2 DK 8	Yes ..... 1 No ..... 2 DK 8
OV11	IN THE LAST 12 MONTHS, HAS YOUR HH RECEIVED ANY EMOTIONAL OR PSYCHOLOGICAL SUPPORT FOR (name), SUCH AS COMPANIONSHIP, COUNSELING FROM A TRAINED COUNSELOR, OR SPIRITUAL SUPPORT, WHICH YOU RECEIVED AT HOME?	Yes ..... 1 **No ..... 2** **DK ..... 8** **2 or 8 ⇨ OV13**	Yes ..... 1 **No ..... 2** **DK ..... 8** **2 or 8 ⇨ OV13**	Yes ..... 1 **No ..... 2** **DK ..... 8** **2 or 8 ⇨ OV13**	Yes ..... 1 **No ..... 2** **DK ..... 8** **2 or 8 ⇨ OV13**
OV12	DID YOUR HH RECEIVE ANY OF THIS SUPPORT FOR (name), IN THE PAST 3 MONTHS?	Yes ..... 1 No ..... 2 DK 8	Yes ..... 1 No ..... 2 DK 8	Yes ..... 1 No ..... 2 DK 8	Yes ..... 1 No ..... 2 DK 8
OV13	IN THE LAST 12 MONTHS, HAS YOUR HH RECEIVED ANY MATERIAL SUPPORT FOR (name), SUCH AS CLOTHING, FOOD OR FINANCIAL SUPPORT?	Yes ..... 1 **No ..... 2** **DK ..... 8** **2 or 8 ⇨ OV15**	Yes ..... 1 **No ..... 2** **DK ..... 8** **2 or 8 ⇨ OV15**	Yes ..... 1 **No ..... 2** **DK ..... 8** **2 or 8 ⇨ OV15**	Yes ..... 1 **No ..... 2** **DK ..... 8** **2 or 8 ⇨ OV15**
OV14	DID YOUR HH RECEIVE ANY OF THIS SUPPORT FOR (name), IN THE PAST 3 MONTHS?	Yes ..... 1 No ..... 2 DK 8	Yes ..... 1 No ..... 2 DK 8	Yes ..... 1 No ..... 2 DK 8	Yes ..... 1 No ..... 2 DK 8
OV15	IN THE LAST 12 MONTHS, HAS YOUR HH RECEIVED ANY SOCIAL SUPPORT FOR (name), SUCH AS HELP IN HH WORK, TRAINING FOR A CAREGIVER, OR LEGAL SERVICES?	Yes ..... 1 **No ..... 2** **DK ..... 8** **2 or 8 ⇨ OV17**	Yes ..... 1 **No ..... 2** **DK ..... 8** **2 or 8 ⇨ OV17**	Yes ..... 1 **No ..... 2** **DK ..... 8** **2 or 8 ⇨ OV17**	Yes ..... 1 **No ..... 2** **DK ..... 8** **2 or 8 ⇨ OV17**
OV16	DID YOUR HH RECEIVE ANY OF THIS SUPPORT FOR (name), IN THE PAST 3 MONTHS?	Yes ..... 1 No ..... 2 DK 8	Yes ..... 1 No ..... 2 DK 8	Yes ..... 1 No ..... 2 DK 8	Yes ..... 1 No ..... 2 DK 8
OV17	**Check OV8: Age of the child 5-17 Yr?**	☐ **Yes ⇨ OV18** ☐ **No ⇨ Next child**	☐ **Yes ⇨ OV18** ☐ **No ⇨ Next child**	☐ **Yes ⇨ OV18** ☐ **No ⇨ Next child**	☐ **Yes ⇨ OV18** ☐ **No ⇨ Next child**
OV18	IN THE LAST 12 MONTHS, HAS YOUR HH RECEIVED ANY SUPPORT FOR (name's) SCHOOLING, SUCH AS ALLOWANCE, FREE ADMISSION, BOOKS OR SUPPLIES?	Yes ..... 1 No ..... 2 DK 8	Yes ..... 1 No ..... 2 DK 8	Yes ..... 1 No ..... 2 DK 8	Yes ..... 1 No ..... 2 DK 8

H.8: Child Labour (for 5-14 years of age only) CL

To be administered to mother/caretaker of each child in the HH age 5 through 14 years.

NOW, I WOULD LIKE TO ASK ABOUT ANY WORK CHILDREN IN THIS HH MAY DO.

CL1 Line no.	CL2 Name	CL3 DURING THE PAST WEEK, DID *(name)* DO ANY KIND OF WORK FOR SOMEONE, WHO IS NOT A MEMBER OF THIS HH? **If Yes:** FOR PAY IN CASH OR KIND? 1=Yes, for pay (cash or kind) 2=Yes, unpaid **3=No ⇨ CL5**			CL4 SINCE LAST *(day of the week)*, ABOUT HOW MANY HOURS DID *(name)* DO THIS WORK FOR SOMEONE WHO IS NOT A MEMBER OF THIS HH? *[If more than one job, include all hours at all jobs]* **Record & skip to ⇨ CL6**	CL5 AT ANY TIME DURING THE PAST YEAR, DID *(name)* DO ANY KIND OF WORK FOR SOMEONE WHO IS NOT A MEMBER OF THIS HH? **If Yes:** FOR PAY IN CASH OR KIND? 1=Yes, for pay (cash or kind) 2=Yes, unpaid 3=No			CL6 DURING THE PAST WEEK, DID *(name)* HELP WITH HH CHORES SUCH AS SHOPPING, COLLECTING FIREWOOD, CLEANING, FETCHING WATER OR CARING FOR CHILDREN? 1= Yes **2= No ⇨ CL8**		CL7 SINCE LAST *(day of the week)*, ABOUT HOW MANY HOURS DID *(name)* SPEND DOING THESE CHORES?	CL8 DURING THE PAST WEEK, DID *(name)* DO ANY OTHER FAMILY WORK (ON THE FARM OR IN A BUSINESS OR SELLING GOODS IN THE STREET?) 1=Yes **2=No ⇨ Next Line**		CL9 SINCE LAST *(day of the week)*, ABOUT HOW MANY HOURS DID *(name)* DO THIS WORK?
Line No.	Name	Yes Paid	Yes Unpaid	No	No. of hours	Yes Paid	Yes Unpaid	No	Yes	No	No. of hours	Yes	No	No. of hours
		1	2	**3**	☐☐	1	2	3	1	**2**	☐☐	1	**2**	☐☐
		1	2	**3**	☐☐	1	2	3	1	**2**	☐☐	1	**2**	☐☐
		1	2	**3**	☐☐	1	2	3	1	**2**	☐☐	1	**2**	☐☐
		1	2	**3**	☐☐	1	2	3	1	**2**	☐☐	1	**2**	☐☐
		1	2	**3**	☐☐	1	2	3	1	**2**	☐☐	1	**2**	☐☐
		1	2	**3**	☐☐	1	2	3	1	**2**	☐☐	1	**2**	☐☐
		1	2	**3**	☐☐	1	2	3	1	**2**	☐☐	1	**2**	☐☐
		1	2	**3**	☐☐	1	2	3	1	**2**	☐☐	1	**2**	☐☐

H.9: Child Discipline CD

Review the household listing and list all children aged 2-14 years below in order according to their line number (HL1). Do not include other HH members outside of the age range 2-14 years. Record the line number, [name, sex, age, and the line number of the mother or caretaker] for each child. Then record the total number of children aged 2-14 in the box provided (CD7). {write the name, sex, age and the mother/caretaker line no. only for the eligible child}

CD1 Rank	CD2 Line No. from HL1	CD3 Name from HL2	CD4 Sex from HL4 M	CD4 F	CD5 Age from HL5	CD6 Line no. of mother/ caretaker from HL7/HL8	CD7
01	__ __		1	2	__ __	__ __	
02	__ __		1	2	__ __	__ __	
03	__ __		1	2	__ __	__ __	
04	__ __		1	2	__ __	__ __	
05	__ __		1	2	__ __	__ __	
06	__ __		1	2	__ __	__ __	
07	__ __		1	2	__ __	__ __	
08	__ __		1	2	__ __	__ __	
	Total children aged 2-14 years in the HH						__ __

If there is only one child age 2-14 years in the household, then go to CD11 to administer child discipline questions.

Random Selection Of Child

Use the grid below to select one child between the ages of 2 and 14 years, if there is more than one child in that age range in the household. Look for the last digit of the household number from the cover page. This is the number of the row you should go to in the table below. Check the total number of eligible children (2-14) in CD7 above. This is the number of the column you should go to. Find the box where the row and the column meet and circle the number that appears in the box. This is the rank number of the child about whom the questions will be asked. Record the rank number in CD9 below. Finally, record the line number and name of the selected child in CD11 on the next page. Then, find the mother or primary caretaker of that child, and ask the questions, beginning with CD12.

CD8	Number of Eligible Children in the Household							
Last digit of HH. No.	1	2	3	4	5	6	7	8+
0	1	2	2	4	3	6	5	4
1	1	1	3	1	4	1	6	5
2	1	2	1	2	5	2	7	6
3	1	1	2	3	1	3	1	7
4	1	2	3	4	2	4	2	8
5	1	1	1	1	3	5	3	1
6	1	2	2	2	4	6	4	2
7	1	1	3	3	5	1	5	3
8	1	2	1	4	1	2	6	4
9	1	1	2	1	2	3	7	5
CD9	Record the rank number of the child.....							__ __

H.9: Child Discipline CD

Review the household listing and list all children aged 2-14 years below in order according to their line number (HL1). Do not include other HH members outside of the age range 2-14 years. Record the line number, [name, sex, age, and the line number of the mother or caretaker] for each child. Then record the total number of children aged 2-14 in the box provided (CD7). (write the name, sex, age and the mother/caretaker line no. only for the eligible child)

CD1 Rank	CD2 Line No. from HL1	CD3 Name from HL2	CD4 Sex from HL4 M F	CD5 Age from HL5	CD6 Line no. of mother/ caretaker from HL7/HL8	CD7
01	__ __		1 2	__ __	__ __	
02	__ __		1 2	__ __	__ __	
03	__ __		1 2	__ __	__ __	
04	__ __		1 2	__ __	__ __	
05	__ __		1 2	__ __	__ __	
06	__ __		1 2	__ __	__ __	
07	__ __		1 2	__ __	__ __	
08	__ __		1 2	__ __	__ __	
	Total children aged 2-14 years in the HH					__ __

If there is only one child age 2-14 years in the household, then go to CD11 to administer child discipline questions.

Random Selection Of Child

Use the grid below to select one child between the ages of 2 and 14 years, if there is more than one child in that age range in the household. Look for the last digit of the household number from the cover page. This is the number of the row you should go to in the table below. Check the total number of eligible children (2-14) in CD7 above. This is the number of the column you should go to. Find the box where the row and the column meet and circle the number that appears in the box. This is the rank number of the child about whom the questions will be asked. Record the rank number in CD9 below. Finally, record the line number and name of the selected child in CD11 on the next page. Then, find the mother or primary caretaker of that child, and ask the questions, beginning with CD12.

CD8	Number of Eligible Children in the Household							
Last digit of HH. No.	1	2	3	4	5	6	7	8+
0	1	2	2	4	3	6	5	4
1	1	1	3	1	4	1	6	5
2	1	2	1	2	5	2	7	6
3	1	1	2	3	1	3	1	7
4	1	2	3	4	2	4	2	8
5	1	1	1	1	3	5	3	1
6	1	2	2	2	4	6	4	2
7	1	1	3	3	5	1	5	3
8	1	2	1	4	1	2	6	4
9	1	1	2	1	2	3	7	5
CD9	Record the rank number of the child.....							__ __

H.9: Child Discipline — CD

Identify eligible child aged 2-14 in the household using the tables on the preceding page.
Request and interview the mother or primary caretaker of the selected child (identified by the line number in CD6).

#	Question	Options	Skip
CD11	Write name and line no. of the child selected for the module from CD3 and CD2, based on the rank number in CD9.	Name & Line No.: ☐☐	
CD12	ALL ADULTS USE CERTAIN WAYS TO TEACH CHILDREN THE RIGHT BEHAVIOUR OR TO ADDRESS A BEHAVIOUR PROBLEM. I WILL READ VARIOUS METHODS THAT ARE USED AND I WANT YOU TO TELL ME IF *YOU OR ANYONE ELSE IN YOUR HOUSEHOLD* HAS USED THIS METHOD WITH *(name)* IN THE PAST MONTH.		
CD12a	TOOK AWAY PRIVILEGES, FORBADE SOMETHING *(name)* LIKED OR DID NOT ALLOW HIM/HER TO LEAVE HOUSE).	Yes 1 No 2	
CD12b	EXPLAINED WHY SOMETHING (THE BEHAVIOR) WAS WRONG.	Yes 1 No 2	
CD12c	SHOOK HIM/HER.	Yes 1 No 2	
CD12d	SHOUTED, YELLED AT OR SCREAMED AT HIM/HER.	Yes 1 No 2	
CD12e	GAVE HIM/HER SOMETHING ELSE TO DO.	Yes 1 No 2	
CD12f	SPANKED, HIT OR SLAPPED HIM/HER ON THE BOTTOM WITH BARE HAND.	Yes 1 No 2	
CD12g	HIT HIM/HER ON THE BOTTOM OR ELSEWHERE ON THE BODY WITH SOMETHING LIKE A BELT, HAIRBRUSH, STICK OR OTHER HARD OBJECT.	Yes 1 No 2	
CD12h	CALLED HIM/HER DUMB, LAZY, OR ANOTHER NAME LIKE THAT.	Yes 1 No 2	
CD12i	HIT OR SLAPPED HIM/HER ON THE FACE, HEAD OR EARS.	Yes 1 No 2	
CD12j	HIT OR SLAPPED HIM/HER ON THE HAND, ARM, OR LEG.	Yes 1 No 2	
CD12k	BEAT HIM/HER UP WITH AN IMPLEMENT (HIT OVER AND OVER AS HARD AS ONE COULD).	Yes 1 No 2	
CD12l	PINCH HIM/HER.	Yes 1 No 2	
CD13	DO YOU BELIEVE THAT IN ORDER TO BRING UP (RAISE, EDUCATE) *(name)* PROPERLY, YOU NEED TO PHYSICALLY PUNISH HIM/HER?	Yes 1 No 2 Don't know/no opinion 8	

H.10: Food Relief			FR
#	Question	Options	Skip
FR1	ARE YOU REGISTERED AS A BENEFICIARY OF FOOD DISTRIBUTION PROGRAM?	Yes ..... 1 **No 2**	2⇨ FR6
FR2	HOW LONG AGO WAS THE LAST RATION?	No. of weeks ..... 1 ☐☐ No. of months ..... 2 ☐☐	
FR3	DOES THE FOOD AID MEET ALL THE FOOD NEEDS OF THE HOUSEHOLD?	Yes ..... 1 No ..... 2 Don't Know 8	
FR4	DO MEMBERS OF THE HOUSEHOLD SELL FOOD TO OBTAIN MONEY TO MEET OTHER NEEDS?	Yes ..... 1 **No ..... 2** **Don't Know 8**	2⇨ FR6 8⇨ FR6
FR5	DOES THE PRICE THE HOUSEHOLD RECEIVE FOR THIS FOOD EQUAL MARKET RATES?	Much Less ..... 1 Roughly the Same ..... 2 Much More ..... 3 Don't Know 8	
FR6	IS ANY OF YOUR CHILDREN REGISTERED IN THE CHILD FEEDING PROGRAM?	Yes ..... 1 No 2	
FR7	HAS THE HOUSEHOLD BEEN DISPLACED ANY TIME DURING THE PAST 12 MONTHS?	Yes ..... 1 No 2	

H.11: Salt Iodization — SI

#	Question	Options	Skip
SL1	WE WOULD LIKE TO CHECK WHETHER THE SALT USED IN YOUR HH IS IODIZED. MAY I SEE A SAMPLE OF THE SALT USED TO COOK THE MAIN MEAL EATEN BY MEMBERS OF YOUR HH LAST NIGHT? [Once you have examined the salt, circle number that corresponds to test outcome]	Not iodized ..... 1 **Less than 15 ppm ..... 2** **15 ppm and more ..... 3** **No salt at home ..... 6** **Salt not tested 7**	 2⇨ SL2 3⇨ SL2 3⇨ SL2 3⇨ SL2
SL1A	TYPE OF SALT	Crystal ..... 1 Powder ..... 2 Other (Specify_____) 9	
SL2	**Check HL6: Does any eligible woman age 15-49 in the HH? You should have a Form with the Woman ID filled in for each eligible woman.** ☐ **Yes ⇨ Go to WOMAN 15-49 FORM to administer the questions to the first eligible woman.** ☐ **No ⇨ Continue to SL3.**		
SL3	**Check HL8: Does any child under the age of 5 in the HH? You should have a Form with the Under-Five ID filled in for each eligible child.** ☐ **Yes ⇨ Go to CHILD < 5 FORM to administer the Form to mother or caretaker of the first eligible child.** ☐ **No ⇨ End the interview by thanking the respondent for his/her cooperation.** **Gather together all Forms for this household and tally the number of Forms completed on the cover page.**		

Interviewer's Remarks:

Supervisor's Remarks:



FORM-B: WOMAN AGE 15-49 YEARS

W.1: Identification Panel		ENGLISH
This Form is to be administered to all women age 15-49 years (See Column HL6 in the HH Form). Fill in one Form for each eligible woman.		
WM-A	Province Name and Code:	☐
WM-B	District Name and Code:	☐☐
WM1	Cluster Name and Number	☐☐
WM-C	Stratum code: HH with child < 3 = 1 Other HHs = 2	☐
WM2	HH No.	☐☐☐
WM3	Name of the woman (from FORM-A: **HL2**)	_____
WM4	Line no. of woman (from FORM-A: **HL1**)	☐☐
WM5	Interviewer's Name & Code	☐☐☐
WM6	Day/Month/Year of interview	☐☐/☐☐/☐☐☐☐
WM7	Result of interview for woman	Completed ..... 1 Not at home ..... 2 Refused ..... 3 Partly completed ..... 4 Incapacitated ..... 5 Other *(Specify* _____ *)* 6
	Remarks if any:	

Read, if the respondent has not responded to any other Forms

Introduction/Consent

HELLO. MY NAME IS (.....) AND I AM WORKING WITH THE KENYA NATIONAL BUREAU OF STATISTICS (KNBS), NAIROBI. WE ARE DOING A SURVEY TO COLLECT INFORMATION ABOUT FAMILY HEALTH AND EDUCATION, FOCUSING ON CHILDREN AND WOMEN, WITH UNICEF SUPPORT. I WOULD LIKE TO TALK TO YOU ABOUT THIS. THE INTERVIEW WILL TAKE ABOUT 30 MINUTES. ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND EVENTUALLY BE ANONYMOUS.

THE INFORMATION YOU PROVIDE WILL HELP THE GOVERNMENT AND DEVELOPMENT AGENCIES IN PLANNING AND IMPLEMENTING DEVELOPMENTAL PROGRAMS.

MAY I START THE INTERVIEW NOW?

ENGLISH

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

KISWAHILI

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

W.2: Woman Information			WI
#	Question	Options	Skip
WM8	IN WHAT MONTH AND YEAR WERE YOU BORN? [Date of birth]	Month ☐☐ DK Month 98 Year ☐☐☐☐ DK Year 9998	
WM9	HOW OLD WERE YOU AT YOUR LAST BIRTHDAY?	Age in completed years ☐☐	
WM10	HAVE YOU EVER ATTENDED SCHOOL OR PRE-SCHOOL?	Yes 1 **No 2**	2⇨WM14
WM11	WHAT IS THE HIGHEST LEVEL OF SCHOOL YOU ATTENDED?	Pre-School 0 Primary 1 Post-Primary, Vocational 2 Secondary, 'A' Level 3 College – Middle Level 4 University 5 Non-standard curriculum 6	
WM12	WHAT IS THE HIGHEST GRADE YOU COMPLETED AT THAT LEVEL?	Grade ☐☐	
WM13	**Check WM11: Level of schooling** ☐ **Secondary/College/University (codes 3 or 4 or 5)** ⇨ **WM15** ☐ **Other** ⇨ **Continue to WM14**		
WM14	NOW I WOULD LIKE YOU TO READ THIS SENTENCE TO ME. [Show language test card to respondent]	Cannot read at all 1 Able to read only parts of sentence 2 Able to read whole sentence 3 No sentence in required language 4 (specify language_____) Blind/mute, visually/speech impaired 5	
WM15	HOW OFTEN DO YOU LISTEN TO RADIO?	Almost everyday 1 At least once a week 2 At least once a month 3 Rarely/Never 4	
WM16	HOW OFTEN DO YOU WATCH TELEVISION?	Almost everyday 1 At least once a week 2 At least once a month 3 Rarely/Never 4	
WM17	HOW OFTEN DO YOU READ NEWSPAPERS?	Almost everyday 1 At least once a week 2 At least once a month 3 Rarely/Never 4	

W.3: Child Mortality			CM
#	Question	Options	Skip
To be administered to all women age 15-49. All questions refer to LIVE births only.			
CM1	NOW I WOULD LIKE TO ASK ABOUT ALL THE BIRTHS YOU HAVE HAD DURING YOUR LIFE. HAVE YOU EVER GIVEN BIRTH? ***If "No" probe by asking:*** I MEAN, TO A CHILD WHO EVER BREATHED OR CRIED OR SHOWED OTHER SIGNS OF LIFE – EVEN IF HE OR SHE LIVED ONLY A FEW MINUTES OR HOURS?	Yes ..... 1 **No** **2**	2⇨ (W.6)
CM3	DO YOU HAVE ANY SONS OR DAUGHTERS TO WHOM YOU HAVE GIVEN BIRTH WHO ARE NOW LIVING WITH YOU?	Yes ..... 1 **No** **2**	2⇨ CM5
CM4	HOW MANY SONS LIVE WITH YOU? HOW MANY DAUGHTERS LIVE WITH YOU?	A. Sons at home ☐☐ B. Daughters at home ☐☐	
CM5	DO YOU HAVE ANY SONS OR DAUGHTERS TO WHOM YOU HAVE GIVEN BIRTH WHO ARE ALIVE BUT DO NOT LIVE WITH YOU?	Yes ..... 1 **No** **2**	2⇨ CM7
CM6	HOW MANY SONS ARE ALIVE BUT DO NOT LIVE WITH YOU? HOW MANY DAUGHTERS ARE ALIVE BUT DO NOT LIVE WITH YOU?	A. Sons elsewhere ☐☐ B. Daughters elsewhere ☐☐	
CM7	HAVE YOU EVER GIVEN BIRTH TO A BOY OR GIRL WHO WAS BORN ALIVE BUT LATER DIED? **If "No" probe by asking:** ANY BABY WHO EVER BREATHED OR CRIED OR SHOWED OTHER SIGNS OF LIFE BUT DID NOT SURVIVE – EVEN IF HE OR SHE LIVED ONLY A FEW MINUTES OR HOURS?	Yes ..... 1 **No** **2**	2⇨ CM9
CM8	HOW MANY BOYS HAVE DIED? HOW MANY GIRLS HAVE DIED?	A. Boys dead ☐☐ B. Girls dead ☐☐	
CM9	**Sum answers to** CM4, CM6, & CM8.	Sum ☐☐	
CM10	**JUST TO MAKE SURE THAT I HAVE THIS RIGHT, YOU HAVE HAD IN TOTAL _____ BIRTHS DURING YOUR LIFE. IS THIS CORRECT?** ☐ **Yes** ⇨ **Continue to W.3a (next page).** ☐ **No** ⇨ **Check responses and make corrections before proceeding to W.3a**		

MICS

unicef

W.3a: Birth History — BH

NOW I WOULD LIKE TO RECORD THE NAMES OF ALL YOUR BIRTHS, WHETHER STILL ALIVE OR NOT, STARTING WITH THE FIRST ONE YOU HAD.
Record names of all the births in BH1. Record twins and triplets on separate lines.

BH1		BH2	BH3	BH4	BH5	BH6	BH7	BH8	BH9		BH10
#	WHAT NAME WAS GIVEN TO YOUR (FIRST/ NEXT) BABY?	WERE ANY OF THESE BIRTHS TWINS?	IS *(name)* A BOY OR GIRL?	IN WHAT MONTH AND YEAR WAS *(name)* BORN? **Probe:** WHAT IS HIS/HER BIRTHDAY?	IS *(name)* STILL ALIVE?	HOW OLD WAS *(name)* AT HIS/HER LAST BIRTHDAY? [Record age in completed years]	IS *(name)* LIVING WITH YOU?	Record HH line number of child [Record '00' if child not listed in HH]	*If dead:* HOW OLD WAS *(name)* WHEN HE/SHE DIED? HOW MANY MONTHS OLD WAS *(name)*? [Record days if less than 1 month; months if less than 2 years; or years]		WERE THERE ANY OTHER LIVE BIRTHS BETWEEN *(name of previous birth)* AND *(name)*?
01		Sing .. 1 Mult ... 2	Boy .... 1 Girl 2	Month ☐☐ / Year ☐☐☐☐	Yes ... 1 **No ..... 2** **⇨ BH9**	☐☐	Y .... 1 N 2	☐☐ **⇨ next line**	Days ..... 1 Month ..... 2 Year 3	☐☐	
02		Sing .. 1 Mult ... 2	Boy .... 1 Girl 2	Month ☐☐ / Year ☐☐☐☐	Yes ... 1 **No ..... 2** **⇨ BH9**	☐☐	Y .... 1 N 2	☐☐ **⇨ BH10**	Days ..... 1 Month ..... 2 Year 3	☐☐	Yes ..... 1 [Add] No ..... 2 [Next]
03		Sing .. 1 Mult ... 2	Boy .... 1 Girl 2	Month ☐☐ / Year ☐☐☐☐	Yes ... 1 **No ..... 2** **⇨ BH9**	☐☐	Y .... 1 N 2	☐☐ **⇨ BH10**	Days ..... 1 Month ..... 2 Year 3	☐☐	Yes ..... 1 [Add] No ..... 2 [Next]
04		Sing .. 1 Mult ... 2	Boy .... 1 Girl 2	Month ☐☐ / Year ☐☐☐☐	Yes ... 1 **No ..... 2** **⇨ BH9**	☐☐	Y .... 1 N 2	☐☐ **⇨ BH10**	Days ..... 1 Month ..... 2 Year 3	☐☐	Yes ..... 1 [Add] No ..... 2 [Next]
05		Sing .. 1 Mult ... 2	Boy .... 1 Girl 2	Month ☐☐ / Year ☐☐☐☐	Yes ... 1 **No ..... 2** **⇨ BH9**	☐☐	Y .... 1 N 2	☐☐ **⇨ BH10**	Days ..... 1 Month ..... 2 Year 3	☐☐	Yes ..... 1 [Add] No ..... 2 [Next]
06		Sing .. 1 Mult ... 2	Boy .... 1 Girl 2	Month ☐☐ / Year ☐☐☐☐	Yes ... 1 **No ..... 2** **⇨ BH9**	☐☐	Y .... 1 N 2	☐☐ **⇨ BH10**	Days ..... 1 Month ..... 2 Year 3	☐☐	Yes ..... 1 [Add] No ..... 2 [Next]
07		Sing .. 1 Mult ... 2	Boy .... 1 Girl 2	Month ☐☐ / Year ☐☐☐☐	Yes ... 1 **No ..... 2** **⇨ BH9**	☐☐	Y .... 1 N 2	☐☐ **⇨ BH10**	Days ..... 1 Month ..... 2 Year 3	☐☐	Yes ..... 1 [Add] No ..... 2 [Next]
08		Sing .. 1 Mult ... 2	Boy .... 1 Girl 2	Month ☐☐ / Year ☐☐☐☐	Yes ... 1 **No ..... 2** **⇨ BH9**	☐☐	Y .... 1 N 2	☐☐ **⇨ BH10**	Days ..... 1 Month ..... 2 Year 3	☐☐	Yes ..... 1 [Add] No ..... 2 [Next]

W.3a: Birth History — BH

NOW I WOULD LIKE TO RECORD THE NAMES OF ALL YOUR BIRTHS, WHETHER STILL ALIVE OR NOT, STARTING WITH THE FIRST ONE YOU HAD.
Record names of all the births in BH1. Record twins and triplets on separate lines.

	BH1	BH2	BH3	BH4	BH5	BH6	BH7	BH8	BH9		BH10
#	WHAT NAME WAS GIVEN TO YOUR (FIRST/ NEXT) BABY?	WERE ANY OF THESE BIRTHS TWINS?	IS *(name)* A BOY OR GIRL?	IN WHAT MONTH AND YEAR WAS *(name)* BORN? **Probe:** WHAT IS HIS/HER BIRTHDAY?	IS *(name)* STILL ALIVE?	HOW OLD WAS *(name)* AT HIS/HER LAST BIRTHDAY? [Record age in completed years]	IS *(name)* LIVING WITH YOU?	Record HH line number of child [Record '00' if child not listed in HH]	*If dead:* HOW OLD WAS *(name)* WHEN HE/SHE DIED? HOW MANY MONTHS OLD WAS *(name)*? [Record days if less than 1 month; months if less than 2 years; or years]		WERE THERE ANY OTHER LIVE BIRTHS BETWEEN *(name of previous birth)* AND *(name)*?
09		Sing .. 1 Mult ... 2	Boy .... 1 Girl 2	Month ☐☐ Year ☐☐☐☐	Yes ... 1 **No..... 2** ⇨ BH9	☐☐	Y .... 1 N 2	☐☐ ⇨ BH10	Days ..... 1 Month ..... 2 Year 3	☐☐	Yes ..... 1 [Add] No ..... 2 [Next]
10		Sing .. 1 Mult ... 2	Boy .... 1 Girl 2	Month ☐☐ Year ☐☐☐☐	Yes ... 1 **No..... 2** ⇨ BH9	☐☐	Y .... 1 N 2	☐☐ ⇨ BH10	Days ..... 1 Month ..... 2 Year 3	☐☐	Yes ..... 1 [Add] No ..... 2 [Next]
11		Sing .. 1 Mult ... 2	Boy .... 1 Girl 2	Month ☐☐ Year ☐☐☐☐	Yes ... 1 **No..... 2** ⇨ BH9	☐☐	Y .... 1 N 2	☐☐ ⇨ BH10	Days ..... 1 Month ..... 2 Year 3	☐☐	Yes ..... 1 [Add] No ..... 2 [Next]
12		Sing .. 1 Mult ... 2	Boy .... 1 Girl 2	Month ☐☐ Year ☐☐☐☐	Yes ... 1 **No..... 2** ⇨ BH9	☐☐	Y .... 1 N 2	☐☐ ⇨ BH10	Days ..... 1 Month ..... 2 Year 3	☐☐	Yes ..... 1 [Add] No ..... 2 [Next]

BH11	HAVE YOU HAD ANY LIVE BIRTHS SINCE THE BIRTH OF (name of last birth)? **If yes**, record birth(s)	Yes ..... 1 No 2	
BH12	**Compare CM9 with number of births in history above and mark:** ☐ **Numbers are different ⇨ Probe and reconcile** ☐ **Numbers are same** ⇨	**Check:** **For all birth:** Year of birth is recorded ..... ☐ **For each living child:** Current age is recorded ..... ☐ **For each dead child:** Age of death is recorded..... ☐ **For age at death 12 months or 1 year:** Probe to ..... ☐ determine exact number of months	

W.3a: Birth History			BH
BH13	SOME PREGNANCIES END BEFORE FULL TERM AS A MISCARRIAGE OR AN ABORTION, WHILE OTHERS MAY RESULT IN A STILLBIRTH. HAVE YOU HAD A MISCARRIAGE OR ABORTION?	Yes ..... 1 **No** **2**	2⇨ BH15
BH14	IN ALL HOW MANY PREGNANCIES DID YOU HAVE THAT ENDED IN A MISCARRIAGE OR AN ABORTION?	Miscarriages/abortions ..... ☐☐ DK 98	
BH15	HAVE YOU HAD A STILLBIRTH?	Yes ..... 1 **No** **2**	2⇨CM12
BH16	IN ALL HOW MANY PREGNANCIES DID YOU HAVE THAT ENDED IN A STILLBIRTH?	Still births ..... ☐☐ DK 98	
CM12	**Check BH4 of last birth: Did the woman's last birth occur within the last 2 years, that is, since (day and month of interview in 2006)? If child has died, take special care when referring to this child by name in the following sections.** ☐ **No live birth in last 2 years** ⇨ **MARRIAGE/UNION Section [W.6]** ☐ **Yes, live birth in last 2 years** ⇨ **Continue to CM13** **Name of child:**_____		
CM13	AT THE TIME YOU BECAME PREGNANT WITH (name), DID YOU WANT TO BECOME PREGNANT THEN, DID YOU WANT TO WAIT UNTIL LATER, OR DID YOU WANT NO (MORE) CHILDREN AT ALL?	Then ..... 1 Later ..... 2 No more 3	

W.4: Tetanus Toxoid — TT

#	Question	Options	Skip
This section is to be administered to all women with a live birth in the 2 years preceding the date of interview.			
TT1	DO YOU HAVE A CARD OR OTHER DOCUMENT WITH YOUR OWN IMMUNIZATIONS LISTED? [If a card is presented, use it to assist with answers to the following questions]	Yes (card seen) ..... 1 Yes (card not seen) ..... 2 No ..... 3 DK 8	
TT2	WHEN YOU WERE PREGNANT WITH YOUR LAST CHILD, DID YOU RECEIVE ANY INJECTION TO PREVENT HIM OR HER FROM GETTING TETANUS, WHICH IS CONVULSIONS AFTER BIRTH (AN ANTI-TETANUS SHOT, AN INJECTION AT THE TOP OF THE ARM OR SHOULDER OR THIGH)?	Yes ..... 1 **No ..... 2** **DK 8**	2⇨TT5 8⇨TT5
TT3	HOW MANY TIMES DID YOU RECEIVE THIS ANTI-TETANUS INJECTION DURING YOUR LAST PREGNANCY?	No. of times ..... ☐☐ **DK 98**	98⇨TT5
TT4	***Check:* How many TT doses during last pregnancy were reported in TT3?**	**At least 2 TT inj. during last pregnancy ..... 1** Fewer than 2 TT inj. during last preg 2	**1⇨(W.5)**
TT5	DID YOU RECEIVE ANY TT INJECTION AT ANY TIME BEFORE YOUR LAST PREGNANCY?	Yes ..... 1 **No ..... 2** **DK 8**	**2⇨(W.5)** **8⇨(W.5)**
TT6	HOW MANY TIMES DID YOU RECEIVE IT?	No. of times ..... ☐☐	
TT7	IN WHAT MONTH AND YEAR DID YOU RECEIVE THE LAST ANTI-TETANUS INJECTION BEFORE THAT LAST PREGNANCY? Skip to next section only if year of injection is given. Otherwise, continue with TT8.	Month ..... ☐☐ DK month ..... 98 **Year** ..... ☐☐☐☐ DK year 9998	**Skip to (W.5)**
TT8	HOW MANY YEARS AGO DID YOU RECEIVE THE LAST ANTI-TETANUS INJECTION BEFORE THAT LAST PREGNANCY?	Years ago ..... ☐☐	

W.5: Maternal and Newborn Health — MN

#	Question	Options	Skip
This section is to be administered to all women with a live birth in the 2 years preceding date of interview. Check CM12 (in section W.3a) and record name of last-born child here _____. Use this child's name in the following questions, where indicated.			
MN1	IN THE FIRST TWO MONTHS AFTER YOUR LAST BIRTH *[THE BIRTH OF /name]*, DID YOU RECEIVE A VITAMIN A DOSE LIKE THIS? Show 200,000 IU capsule or dispenser (Red).	Yes ..... 1 No ..... 2 DK 8	
MN2	DID YOU SEE ANYONE FOR ANTENATAL CARE FOR THIS PREGNANCY? **If yes:** WHOM DID YOU SEE? ANYONE ELSE? [Probe for the type of person seen and circle all answers given]	Health professional: Doctor/Clinical Officer ..... A Nurse/Midwife ..... B Other person: Traditional birth attendant ..... F Community health worker ..... G Relative/friend ..... H Other (*specify*_____) ..... X **No one** ..... **Y**	Y⇨MN6A
MN2A	HOW MANY TIMES DID YOU RECEIVE ANTENATAL CARE DURING THIS PREGNANCY?	No. of times ..... ☐☐ Don't know 98	
MN2B	DURING THIS PREGNANCY, WERE YOU GIVEN OR DID YOU BUY ANY IRON TABLETS? [Show Tablets]	Yes ..... 1 **No** ..... **2** **Don't know** **8**	2⇨MN3 8⇨MN3
MN2C	DURING THE WHOLE PREGNANCY, FOR HOW MANY DAYS DID YOU TAKE THE TABLETS? [If the answer is not numeric, probe for approximate number of days]	No. of days ..... ☐☐☐ Don't know 998	
MN3	AS PART OF YOUR ANTENATAL CARE, WERE ANY OF THE FOLLOWING DONE AT LEAST ONCE?	Y N	
	MN3a. WERE YOU WEIGHED?	Weighed 1 2	
	MN3b. WAS YOUR BLOOD PRESSURE MEASURED?	Blood pressure 1 2	
	MN3c. DID YOU GIVE A URINE SAMPLE?	Urine sample 1 2	
	MN3d. DID YOU GIVE A BLOOD SAMPLE?	Blood sample 1 2	
MN4	DURING ANY OF THE ANTENATAL VISITS FOR THE PREGNANCY, WERE YOU GIVEN ANY INFORMATION OR COUNSELED ABOUT AIDS OR THE AIDS VIRUS?	Yes ..... 1 No ..... 2 Don't know 8	
MN5	I DON'T WANT TO KNOW THE RESULTS, BUT WERE YOU TESTED FOR HIV/AIDS AS PART OF YOUR ANTENATAL CARE?	Yes ..... 1 **No** ..... **2** **Don't know** **8**	2⇨MN6A 8⇨MN6A
MN6	I DON'T WANT TO KNOW THE RESULTS, BUT DID YOU GET THE RESULTS OF THE TEST?	Yes ..... 1 No ..... 2 Don't know 8	
MN6A	DURING THIS PREGNANCY, DID YOU TAKE ANY MEDICINE IN ORDER TO PREVENT YOU FROM GETTING MALARIA?	Yes ..... 1 **No** ..... **2** **Don't know** **8**	2⇨MN7 8⇨MN7

W.5: Maternal and Newborn Health — MN

#	Question	Options	Skip
MN6B	WHICH MEDICINES DID YOU TAKE TO PREVENT MALARIA? [Circle all medicines taken. If type of medicine is not determined, **show typical anti-malarial** to the respondent]	SP/Fansidar ..... A Chloroquine ..... B Others (*specify*_____) .. X DK ..... Z	***If 'A' is not circled, skip to MN7***
MN6C	HOW MANY TIMES DID YOU TAKE SP/FANSIDAR DURING THIS PREGNANCY TO PREVENT MALARIA?	Number of times ..... ☐☐	
MN7	WHO ASSISTED WITH THE DELIVERY OF YOUR LAST CHILD *(name)*? ANYONE ELSE? [Probe for the type of person assisting and circle all answers given]	Health professional: Doctor/Clinical Officer ..... A Nurse/Midwife ..... B Other person: Traditional birth attendant ..... F Community health worker ..... G Relative/friend ..... H Other (*specify*_____) ..... X No one ..... Y	
MN8	WHERE DID YOU GIVE BIRTH TO *(name)*? [If the facility is hospital, health center, or clinic; write the name of the place below. Probe to identify the type of source and circle the appropriate code] _____ (NAME OF PLACE?)	Home Your home ..... 11 Other home ..... 12 Public sector Govt. hospital ..... 21 Govt. clinic/health center ..... 22 CHAM ..... 23 Other public (*specify*) _____ 26 Private Medical Sector Private hospital ..... 31 Private clinic ..... 32 Private maternity home ..... 33 Other pvt. medical (*specify*_____) .. 36 Other (*specify*_____) .. 96	
MN8A	AFTER *(name)* WAS BORN, DID A HEALTH PROFESSIONAL OR A TRADITIONAL BIRTH ATTENDANT CHECK ON YOUR HEALTH?	Yes ..... 1 **No** ..... **2** **DK** **8**	2⇨MN8D 8⇨MN8D
MN8B	HOW MANY DAYS OR WEEKS AFTER DELIVERY DID THE FIRST CHECK TAKE PLACE? [Record '00' days if same day]	Days after delivery ..... 1 Weeks after delivery ..... 2 ☐☐ Don't Know 998	
MN8C	WHO CHECKED ON YOUR HEALTH AT THAT TIME? [Probe for most qualified person]	Health professional: Doctor/Clinical Officer ..... 11 Nurse/Midwife ..... 12 Other person: Traditional birth attendant ..... 21 Community health worker ..... 22 Other (*specify*_____) 96	

W.5: Maternal and Newborn Health			MN
#	Question	Options	Skip
MN8D	**Check MN8 for place of birth:** ☐ **Birth at home (Code 11 or 12)** ⇨ **Continue to MN8E** ☐ **Otherwise** ⇨ **Skip to MN9**		
MN8E	IN THE TWO MONTHS AFTER *(name)* WAS BORN, DID ANY HEALTH CARE PROVIDER OR A TRADITIONAL BIRTH ATTENDANT CHECK ON HIS/HER HEALTH?	Yes ..... 1 **No ..... 2** **DK 8**	 2⇨MN9 8⇨MN9
MN8F	HOW MANY HOURS, DAYS OR WEEKS AFTER THE BIRTH OF *(name)* DID THE FIRST CHECK TAKE PLACE? [If less than one day, record in hours. If less than one week, record in days.]	Hours after birth ..... 1 Days after birth ..... 2 Weeks after birth ..... 3 ☐☐ Don't Know 998	
MN8G	WHO CHECKED ON *(name)*'S HEALTH AT THAT TIME? [Probe for most qualified person]	Health professional: Doctor/Clinical Officer ..... 11 Nurse/Midwife ..... 12 Other person: Traditional birth attendant ..... 21 Community health worker ..... 22 Other (*specify*_____) 96	
MN8H	WHERE DID THIS FIRST CHECK OF *(name)* TAKE PLACE? [Probe to identify the type of source and circle the appropriate code. If unable to determine if a hospital, health centre or clinic is public or private medical, write the name of the place] _____ (NAME OF THE PLACE)	Home Your home ..... 11 Other home ..... 12 Public sector Govt. hospital ..... 21 Govt. clinic/health center ..... 22 CHAM ..... 23 Other public (*specify*_____) ..... 26 Private Medical Sector Private hospital ..... 31 Private clinic ..... 32 Private maternity home ..... 33 Other pvt. medical (*specify*_____) ..... 36 Other (*specify*_____) 96	
MN9	WHEN YOUR LAST CHILD *(name)* WAS BORN, WAS HE/SHE VERY LARGE, LARGER THAN AVERAGE, AVERAGE, SMALLER THAN AVERAGE, OR VERY SMALL?	Very large ..... 1 Larger than average ..... 2 Average ..... 3 Smaller than average ..... 4 Very small ..... 5 DK 8	
MN10	WAS *(name)* WEIGHED AT BIRTH?	Yes ..... 1 **No ..... 2** **DK 8**	 2⇨MN12 8⇨MN12

W.5: Maternal and Newborn Health — MN

#	Question	Options	Skip
MN11	HOW MUCH DID *(name)* WEIGH? [Record weight from health card, if available]	Card ..... 1 Re-call ..... 2 (Record in Kgs) □.□□□ Don't know 99998	
MN12	DID YOU EVER BREASTFEED *(name)*?	Yes ..... 1 **No 2**	2⇨ (W.6)
MN13	HOW LONG AFTER BIRTH DID YOU FIRST PUT *(name)* TO THE BREAST? If less than 1 hour, record '00' hours. If less than 24 hours, record hours. Otherwise, record days.	Immediately ..... 000 Hours after ..... 1 □□ Days after ..... 2 Don't know/remember 998	
MN14	DID *(name)* RECEIVE ANYTHING ELSE BEFORE STARTING TO BREASTFEED?	Yes ..... 1 **No ..... 2** **Don't know 8**	2⇨ (W.6) 8⇨ (W.6)
MN15	DID (name) RECEIVE ANY OF THE FOLLOWING:	Yes / No	
	MN15A. PLAIN WATER?	Plain water ..... 1 / 2	
	MN15B. MINERAL WATER?	Mineral water ..... 1 / 2	
	MN15C. SWEETENED, FLAVOURED WATER?	Sweetened/Flavored water ..... 1 / 2	
	MN15D. FRUIT JUICE OR TEA?	Fruit juice or tea ..... 1 / 2	
	MN15E. ANYTHING ELSE?	Other (specify_____) ... 1 / 2	

W.6: Marriage/Union — MA

#	Question	Options	Skip
MA1	ARE YOU CURRENTLY MARRIED OR LIVING TOGETHER WITH A MAN AS IF MARRIED?	Yes, currently married ..... 1 Yes, living with a man ..... 2 **No, not in union** **3**	3⇨MA3
MA2	HOW OLD WAS YOUR HUSBAND/PARTNER ON HIS LAST BIRTHDAY?	**Age in years** ..... ☐☐ **DK** **98**	**SKIP TO ⇨ MA5**
MA3	HAVE YOU EVER BEEN MARRIED OR LIVED TOGETHER WITH A MAN?	Yes, formerly married ..... 1 Yes, formerly lived with a man ..... 2 **No** **3**	3⇨(W.7)
MA4	WHAT IS YOUR MARITAL STATUS NOW: ARE YOU WIDOWED, DIVORCED OR SEPARATED?	Widowed ..... 1 Divorced ..... 2 Separated 3	
MA5	HAVE YOU BEEN MARRIED OR LIVED WITH A MAN ONLY ONCE OR MORE THAN ONCE?	Only once ..... 1 More than once 2	
MA6	IN WHAT MONTH AND YEAR DID YOU **FIRST** MARRY OR START LIVING WITH A MAN AS IF MARRIED?	Month ..... ☐☐ DK month ..... 98 Year ..... ☐☐☐☐ DK year 9998	
MA7	**Check MA6: For month and year of marriage** ☐ **Both Month and year of marriage are known?** **⇨ Next Section (W.7)** ☐ **Either month or year of marriage/union not known?** **⇨ Continue to MA8**		
MA8	HOW OLD WERE YOU WHEN YOU STARTED LIVING WITH YOUR FIRST HUSBAND/PARTNER?	Age in years ..... ☐☐	

W.7: Contraception and Unmet Need — CP

#	Question	Options	Skip
CP1	I WOULD LIKE TO TALK WITH YOU ABOUT ANOTHER SUBJECT – FAMILY PLANNING – AND YOUR REPRODUCTIVE HEALTH. ARE YOU PREGNANT NOW?	Yes, currently pregnant ..... 1 **No ..... 2** **Unsure or Don't know 8**	 2⇨ CP2 8⇨ CP2
CP1A	AT THE TIME YOU BECOME PREGNANT DID YOU WANT TO BECOME PREGNANT THEN, DID YOU WANT TO WAIT UNTIL LATER, OR DID YOU NOT WANT TO HAVE ANY MORE CHILDREN?	Then ..... 1 Later ..... 2 Not want more children 3	1⇨ CP4 2⇨ CP4 3⇨ CP4
CP2	SOME PEOPLE USE VARIOUS WAYS OR METHODS TO DELAY OR AVOID A PREGNANCY. ARE YOU CURRENTLY DOING SOMETHING OR USING ANY METHOD TO DELAY OR AVOID GETTING PREGNANT?	Yes ..... 1 **No 2**	 2⇨ CP6
CP3	WHICH METHOD ARE YOU USING? Do not prompt. If more than one method is mentioned, circle each one.	Female sterilization/Tubeligation ..... A Male sterilization/Vasectomy ..... B Pill ..... C IUD/coil ..... D Injections ..... E Implants ..... F Condom ..... G Female condom ..... H Diaphragm ..... I Lactational amenorrhoea method (LAM) ..... J Periodic abstinence ..... K Withdrawal ..... L Other (*specify*_____) X	
CP4	NOW I WOULD LIKE TO ASK SOME QUESTIONS ABOUT THE FUTURE. WOULD YOU LIKE TO HAVE (A/ANOTHER) CHILD, OR WOULD YOU PREFER NOT TO HAVE ANY (MORE) CHILDREN? **If currently pregnant:** AFTER THE CHILD YOU ARE NOW EXPECTING, WOULD YOU LIKE TO HAVE ANOTHER CHILD OR YOU WOULD PREFER NOT TO HAVE ANY (MORE) CHILDREN?	Have (a/another) child ..... 1 **No more/none ..... 2** **Says she cannot get pregnant ..... 3** **Undecided/don't know 8**	 2⇨CP6 3⇨(W.8) 8⇨CP6
CP5	HOW LONG WOULD YOU LIKE TO WAIT BEFORE THE BIRTH OF (A/ANOTHER) CHILD?	Months ..... 1 ☐☐ Years ..... 2 Soon/now ..... 993 **Says she cannot get pregnant ..... 994** After marriage ..... 995 Other ..... 996 Don't know 998	 994⇨ (W.8)
CP6	**Check CP1: Pregnancy status** ☐ **Currently pregnant (code = 1) ⇨ Next Section (W.8)** ☐ **Not currently pregnant ⇨ Continue to CP7**		
CP7	DO YOU THINK YOU ARE PHYSICALLY ABLE TO GET PREGNANT AT THIS TIME?	Yes ..... 1 No ..... 2 Don't know 3	

W.8: Female Genital Mutilation/Cutting — FG

#	Question	Options	Skip
FG1	HAVE YOU EVER HEARD OF FEMALE CIRCUMCISION?	**Yes** ..... **1** No 2	1⇨FG3
FG2	IN A NUMBER OF COMMUNITIES, 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⇨(W.9)
FG3	HAVE YOU YOURSELF EVER BEEN CIRCUMCISED?	Yes ..... 1 **No** **2**	2⇨FG8
FG4	NOW I WOULD LIKE TO ASK YOU WHAT WAS DONE TO YOU AT THIS TIME. WAS ANY FLESH REMOVED FROM THE GENITAL AREA?	**Yes** ..... **1** No ..... 2 DK 8	1⇨FG6
FG5	WAS THE GENITAL AREA JUST NICKED WITHOUT REMOVING ANY FLESH?	Yes ..... 1 No ..... 2 DK 8	
FG6	WAS THE GENITAL AREA SEWN CLOSED (OR 'SEALED')?	Yes ..... 1 No ..... 2 DK 8	
FG7	WHO CIRCUMCISED YOU?	TRADITIONAL PERSONS Traditional 'circumciser' ..... 11 Traditional birth attendant ..... 12 Other traditional (***specify*** _____) .. 16 HEALTH PROFESSIONAL Doctor ..... 21 Nurse/midwife ..... 22 Other health professional (***specify*** _____) .. 26 Don't know 98	
FG8	**Check CM4 and CM6 (in Section W.3): Woman has living daughter?** ☐ **Yes, has living daughter** ⇨ **Continue with FG9** ☐ **No living daughter** ⇨ **Go to FG16**		
FG9	HAVE ANY OF YOUR DAUGHTERS BEEN CIRCUMCISED? **If yes**, HOW MANY?	No. of daughters circumcised ..... ☐☐ **No daughters circumcised** **00**	00⇨FG16
FG10	TO WHICH OF YOUR DAUGHTERS DID THIS HAPPEN MOST RECENTLY? [Record the daughter's name]	Name of daughter: _____	
FG11	NOW I WOULD LIKE TO ASK YOU WHAT WAS DONE TO *(name)* AT THAT TIME. WAS ANY FLESH REMOVED FROM THE GENITAL AREA?	**Yes** ..... **1** No ..... 2 DK 8	1⇨FG13

W.8: Female Genital Mutilation/Cutting — FG

#	Question	Options	Skip
FG12	WAS THE GENITAL AREA JUST NICKED WITHOUT REMOVING ANY FLESH?	Yes ..... 1 No ..... 2 DK 8	
FG13	WAS THE GENITAL AREA SEWN CLOSED (OR 'SEALED')?	Yes ..... 1 No ..... 2 DK 8	
FG14	HOW OLD WAS *(name)* WHEN THIS OCCURRED? [If the respondent does not know the age, probe to get an estimate]	Daughter's age at circumcision ..... ☐☐ Don't know 98	
FG15	WHO DID THE CIRCUMCISION FOR *(name)*?	TRADITIONAL PERSONS Traditional 'circumciser' ..... 11 Traditional birth attendant ..... 12 Other traditional (***specify*** _____) .. 16 HEALTH PROFESSIONAL Doctor ..... 21 Nurse/midwife ..... 22 Other health professional (***specify*** _____) .. 26 Don't know 98	
FG16	DO YOU THINK THIS PRACTICE SHOULD BE CONTINUED OR SHOULD IT BE DISCONTINUED?	Continued ..... 1 Discontinued ..... 2 Depends ..... 3 DK 8	

W.9: Domestic Violence						DV
#	Question	Options				Skip
DV1	SOMETIMES A HUSBAND IS ANNOYED OR ANGERED BY THINGS THAT HIS WIFE DOES. IN YOUR OPINION, IS A HUSBAND JUSTIFIED IN HITTING OR BEATING HIS WIFE IN THE FOLLOWING SITUATIONS:		Yes	No	DK	
	DV1A. IF SHE GOES OUT WITH OUT TELLING HIM?	Goes out without telling.....	1	2	8	
	DV1B. IF SHE NEGLECTS THE CHILDREN?	Neglects the children.....	1	2	8	
	DV1C. IF SHE ARGUES WITH HIM?	Argues with husband.....	1	2	8	
	DV1D. IF SHE REFUSES SEX WITH HIM?	Refuses sex.....	1	2	8	
	DV1E. IF SHE BURNS THE FOOD?	Burns the food.....	1	2	8	

W.10: HIV/AIDS			HA
#	Question	Options	Skip
HA1	NOW I WOULD LIKE TO TALK WITH YOU ABOUT SOMETHING ELSE. HAVE YOU EVER HEARD OF THE VIRUS HIV OR AN ILLNESS CALLED AIDS?	Yes ..... 1 **No** **2**	2⇨ END
HA2	CAN PEOPLE PROTECT THEMSELVES FROM GETTING INFECTED WITH THE AIDS VIRUS BY HAVING ONE SEX PARTNER WHO IS NOT INFECTED AND ALSO HAS NO OTHER PARTNERS?	Yes ..... 1 No ..... 2 Don't know 8	
HA3	CAN PEOPLE GET INFECTED WITH THE AIDS VIRUS BECAUSE OF WITCHCRAFT OR OTHER SUPERNATURAL MEANS?	Yes ..... 1 No ..... 2 Don't know 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 Don't know 8	
HA5	CAN PEOPLE GET THE AIDS VIRUS FROM MOSQUITO BITES?	Yes ..... 1 No ..... 2 Don't know 8	
HA6	CAN PEOPLE REDUCE THEIR CHANCE OF GETTING INFECTED WITH THE AIDS VIRUS BY NOT HAVING SEX AT ALL?	Yes ..... 1 No ..... 2 Don't know 8	
HA7	CAN PEOPLE GET THE AIDS VIRUS BY SHARING FOOD WITH A PERSON WHO HAS AIDS?	Yes ..... 1 No ..... 2 Don't know 8	
HA7A	CAN PEOPLE GET THE AIDS VIRUS BY GETTING INJECTIONS WITH A NEEDLE THAT WAS ALREADY USED BY AN INFECTED PERSON?	Yes ..... 1 No ..... 2 Don't know 8	
HA8	IS IT POSSIBLE FOR A HEALTHY-LOOKING PERSON TO HAVE THE AIDS VIRUS?	Yes ..... 1 No ..... 2 Don't know 8	
HA9	CAN THE AIDS VIRUS BE TRANSMITTED FROM A MOTHER TO A BABY (.....)	Yes / No / DK	
	HA9A. DURING PREGNANCY?	During pregnancy 1 2 8	
	HA9B. DURING DELIVERY?	During delivery 1 2 8	
	HA9C. BY BREASTFEEDING?	By breastfeeding 1 2 8	
HA10	IF A FEMALE TEACHER HAS THE AIDS VIRUS BUT IS NOT SICK, SHOULD SHE BE ALLOWED TO CONTINUE TEACHING IN SCHOOL?	Yes ..... 1 No ..... 2 Don't know/not sure/depends 8	
HA11	WOULD YOU BUY FRESH VEGETABLES FROM A SHOPKEEPER OR VENDOR IF YOU KNEW THAT THIS PERSON HAD THE AIDS VIRUS?	Yes ..... 1 No ..... 2 Don't know/not sure/depends 8	

W.10: HIV/AIDS			HA
HA12	IF A MEMBER OF YOUR FAMILY BECAME INFECTED WITH THE AIDS VIRUS, WOULD YOU WANT IT TO REMAIN A SECRET?	Yes ..... 1 No ..... 2 Don't know/not sure/depends 8	
HA13	IF A MEMBER OF YOUR FAMILY BECAME SICK WITH THE AIDS VIRUS, WOULD YOU BE WILLING TO CARE FOR HIM OR HER IN YOUR HH?	Yes ..... 1 No ..... 2 Don't know/not sure/depends 8	
HA14	**Check MN5 (in Section W.5): Tested for HIV during antenatal care?** ☐ **Yes ⇨ HA19** ☐ **No ⇨ Continue to HA15**		
HA15	I DO NOT WANT TO KNOW THE RESULTS, BUT HAVE YOU EVER BEEN TESTED TO SEE IF YOU HAVE HIV, THE VIRUS THAT CAUSES AIDS?	Yes ..... 1 **No 2**	2⇨HA18
HA16	I DO NOT WANT YOU TO TELL ME THE RESULTS OF THE TEST, BUT HAVE YOU BEEN TOLD THE RESULTS?	Yes ..... 1 No 2	
HA17	DID YOU, YOURSELF, ASK FOR THE TEST, WAS IT OFFERED TO YOU AND YOU ACCEPTED, OR WAS IT REQUIRED?	**Asked for the test ..... 1** **Offered and accepted ..... 2** **Required 3**	**END**
HA18	AT THIS TIME, DO YOU KNOW OF A PLACE WHERE YOU CAN GO TO GET SUCH A TEST TO SEE IF YOU HAVE THE AIDS VIRUS?	**Yes ..... 1** **No 2**	**END**
HA19	OTHER THAN AT THE ANTENATAL CLINIC, DO YOU KNOW OF A PLACE WHERE YOU CAN GO TO GET A TEST TO SEE IF YOU HAVE THE AIDS VIRUS?	Yes ..... 1 No 2	

-: Check, whether the Form has any gaps, if yes, fill-in those gaps and thank the respondent for spending time and providing valuable information; and go to the next respondent :–

Remarks/Observations by the Supervisor/Editor/Coordinators:



FORM-C: CHILD BELOW 5 YEARS

C.1: General Information — ENGLISH

This FORM is to be administered to all mothers/caretakers (See Column HL8 of HH Listing Form) who care for a child that lives with them and is under the age of 5 years (See Column HL5 of HH Listing Form). Use a separate Form for each eligible child.

UF-A	Province Name & Code.		☐
UF-B	District Name & Code.		☐☐
UF1	Cluster Name and Number ☐☐	UF-C	Stratum Code: [Child < 3 = 1/Other = 2] ☐
UF2	HH NO.		☐☐☐
UF4	Child Name & Line No.		☐☐
UF6	Mother/Caretaker Name & Line No.		☐☐
UF7	Interviewer's Name & Code		☐☐☐
UF8	Day/Month/Year of interview		☐☐/☐☐/☐☐☐☐
UF9	Result of interview for children under 5 [Codes refer to mother/caretaker]		Completed ..... 1 Not at home ..... 2 Refused ..... 3 Partly completed ..... 4 Incapacitated ..... 5 Other (Specify) _____ 6

Remarks

Read, if the respondent has not responded to any other Forms

Introduction/Consent

HELLO. MY NAME IS (.....) AND I AM WORKING WITH THE KENYA NATIONAL BUREAU OF STATISTICS (KNBS), NAIROBI. WE ARE DOING A SURVEY TO COLLECT INFORMATION ABOUT FAMILY HEALTH AND EDUCATION, FOCUSING ON CHILDREN AND WOMEN, WITH UNICEF SUPPORT. I WOULD LIKE TO TALK TO YOU ABOUT THIS. THE INTERVIEW WILL TAKE ABOUT 20 MINUTES. ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND EVENTUALLY BE ANONYMOUS. DURING THIS TIME I WOULD LIKE TO SPEAK TO YOU ABOUT YOUR CHILDREN AND/OR CHILDREN YOU TAKE CARE IN THIS HOUSEHOLD.

THE INFORMATION YOU PROVIDE WILL HELP THE GOVERNMENT AND DEVELOPMENT AGENCIES IN PLANNING AND IMPLEMENTING DEVELOPMENTAL PROGRAMS.

MAY I START THE INTERVIEW NOW?

UF10	NOW I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT THE HEALTH OF EACH CHILD UNDER THE AGE OF 5 IN YOUR CARE, WHO LIVES WITH YOU/IN THIS HH NOW. NOW I WANT TO ASK YOU ABOUT (*name*). IN WHAT MONTH AND YEAR WAS (*name*) BORN? **Probe:** WHAT IS HIS/HER BIRTHDAY? DOES HE/SHE HAVE A BIRTH CERTIFICATE? [If the mother/caretaker knows the exact birth date, also enter the day; otherwise, circle 98 for day]	**Date of birth:** Day ☐☐ Don't know the day of birth....98 Month ☐☐ Year ☐☐☐☐
UF11	HOW MANY MONTHS OLD IS (*name*)? [Record age in completed months]	Age in months ☐☐

C.2: Birth Registration and Early Learning — BR

#	Question	Options	Skip
BR1	DOES (*name*) HAVE A BIRTH CERTIFICATE? MAY I SEE IT?	**Yes, seen....1** **Yes, not seen....2** No....3 Don't know....8	1⇨BR5 2⇨BR5
BR2	HAS (*name's*) BIRTH BEEN REGISTERED WITH THE CIVIL AUTHORITIES?	**Yes....1** No....2 **Don't know....8**	1⇨BR5 8⇨BR4
BR3	WHY IS (*name's*) BIRTH NOT REGISTERED? PROBE: DID YOU KNOW THAT A BIRTH HAS TO BE REGISTERED? DID YOU TRY TO REGISTER THIS ONE? WHY DID YOU FAIL TO REGISTER THIS BIRTH?	Costs too much....1 Must travel too far....2 Did not know it should be registered....3 Did not want to pay fine....4 Does not know where to register....5 Other (*specify*_____)..6 Don't know....8	
BR4	DO YOU KNOW HOW TO REGISTER YOUR CHILD'S BIRTH?	Yes....1 No....2	
BR4A	DO YOU KNOW WHERE TO REGISTER YOUR CHILD'S BIRTH?	Yes....1 No....2	
BR5	**Check UF11 (age of the child): Child is 36-59 months old?** ☐ **Yes ⇨ Continue to BR6** ☐ **No ⇨ Go to BR8**		
BR6	DOES (*name*) ATTEND ANY ORGANIZED LEARNING OR EARLY CHILDHOOD EDUCATION PROGRAMME, SUCH AS A PRIVATE OR GOVERNMENT FACILITY, INCLUDING KINDERGARTEN OR COMMUNITY CHILD CARE?	Yes....1 **No....2** **Don't know....8**	 2⇨BR7A 8⇨BR8
BR7	WITHIN THE LAST SEVEN DAYS, ABOUT HOW MANY HOURS DID (*name*) ATTEND?	No. of Hours ☐☐	**Skip to BR8**

C.2: Birth Registration and Early Learning — BR

BR7A	WHAT IS THE MAIN REASON FOR (*name*) NOT ATTENDING ANY PRE-SCHOOL LEARNING/EARLY CHILDHOOD EDUCATION PROGRAM?	No facility nearby ..... 1 The facility is not good ..... 2 No money to pay the fees/expensive ..... 3 Child is too young ..... 4 Other (specify_____) .... 6 Don't know 8				
BR8	IN THE PAST 3 DAYS, DID YOU OR ANY HOUSEHOLD MEMBER OVER 15 YEARS OF AGE ENGAGE IN ANY OF THE FOLLOWING ACTIVITIES WITH (*name*): ***If yes, ask:*** WHO ENGAGED IN THIS ACTIVITY WITH THE CHILD - THE MOTHER, THE CHILD'S FATHER OR ANOTHER ADULT MEMBER OF THE HOUSEHOLD (INCLUDING THE CARETAKER/RESPONDENT)? *Circle all that apply.*	Mother	Father	Other	None	
BR8a	READ BOOKS OR LOOK AT PICTURE BOOKS WITH (*name*)?	A	B	X	Y	
BR8b	TELL STORIES TO (*name*)?	A	B	X	Y	
BR8c	SING SONGS WITH (*name*)?	A	B	X	Y	
BR8d	TAKE (*name*) OUTSIDE THE HOME, COMPOUND, YARD OR ENCLOSURE?	A	B	X	Y	
BR8e	PLAY WITH (*name*)?	A	B	X	Y	
BR8f	SPEND TIME WITH (*name*) NAMING, COUNTING, AND/OR DRAWING THINGS?	A	B	X	Y	

C.3: Vitamin A — VA

#	Question	Options	Skip
VA1	HAS (name) EVER RECEIVED A VITAMIN A CAPSULE (SUPPLEMENT) LIKE THIS ONE? SHOW CAPSULE OR DISPENSER FOR DIFFERENT DOSES: 100,000 IU FOR THOSE 6-11 MONTHS OLD (BLUE/YELLOW) 200,000 IU FOR THOSE 12-59 MONTHS OLD (RED)	Yes ..... 1 **No ..... 2** **Child below 6 months old ..... 3** **Don't know 8**	 2⇨ (C.4) 3⇨ (C.4) 8⇨ (C.4)
VA2	HOW MANY MONTHS AGO DID (*name*) TAKE THE LAST DOSE?	Months ..... ☐☐ Don't know 98	
VA3	WHERE DID (*name*) GET THIS LAST DOSE?	On routine visit to health facility ..... 1 Sick child visit to health facility ..... 2 National Immunization/Vit. A Campaign ..... 3 Other (*Specify*_____) ... 6 Don't know 8	

C.4: Breastfeeding — BF

#	Question	Options	Skip
BF1	HAS (*name*) EVER BEEN BREASTFED?	Yes ..... 1 **No** ..... **2** **Don't know** **8**	 2⇨ BF3 8⇨ BF3
BF1a	HOW LONG AFTER BIRTH WAS (*name*) PUT TO THE BREAST FOR THE FIRST TIME?	Immediately after birth ..... 000 Hours ..... 1 ☐☐ Days ..... 2 Don't know 998	
BF2	IS HE/SHE STILL BEING BREASTFED?	**Yes** ..... **1** No ..... 2 **Don't know** **8**	1⇨ BF2b 8⇨ BF3
BF2a	FOR HOW MANY MONTHS DID (*name*) BREASTFEED?	Months ..... ☐☐ Don't know 98	Skip to BF3
BF2b	SINCE THIS TIME YESTERDAY, HOW MANY TIMES HAS (*name*) BREASTFED? *(If answer is not numeric, probe for approximate number)*	Times Breastfed ..... ☐☐ Don't know 98	

BF3 — SINCE THIS TIME YESTERDAY, DID HE/SHE RECEIVE ANY OF THE FOLLOWING:
(Read each item aloud and record response before proceeding to the next item)

Item	Yes	No	DK	
BF3A. VITAMIN, MINERAL SUPPLEMENTS OR MEDICINE?	1	2	8	
BF3B. PLAIN WATER?	1	2	8	
BF3C. SWEETENED, FLAVOURED WATER OR FRUIT JUICE OR TEA OR INFUSION?	1	2	8	
BF3D. ORAL REHYDRATION SOLUTION (ORS)?	1	2	8	
BF3E. INFANT FORMULA?	1	2	8	
BF3F. TINNED, POWDERED OR FRESH MILK?	1	2	8	
BF3G. ANY OTHER LIQUIDS?	1	2	8	
BF3H. SOLID OR SEMI-SOLID (MUSHY) FOOD?	1	2	8	

BF4 — **Check BF3H. Child received solid or semi-solid (mushy) food?**

☐ **Yes** ⇨ **Continue to BF5**

☐ **No or DK** ⇨ **Next Section (C.5)**

C.4: Breastfeeding			BF
#	Question	Options	Skip
BF5	SINCE THIS TIME YESTERDAY, HOW MANY TIMES DID *(name)* EAT SOLID, SEMISOLID OR SOFT FOODS OTHER THAN LIQUIDS? *(If 7 or more times, record 7)*	No. of times ..... ☐ Don't know 8	
BF5a	AT WHAT AGE DID *(name)* START RECIVING WATER OTHER THAN BREASTMILK? *(If 7 or more months old, record 7)*	Age in months ..... ☐ Don't know 8	
BF5b	AT WHAT AGE DID *(name)* START RECIVING SOLID OR SEMI-SOLID FOOD? *(If 15 or more months old, record 15)*	Age in months ..... ☐☐ Don't know 98	

C.5: Care of Childhood Illness — CI

#	Question	Options	Skip
CA1	HAS (*name*) HAD DIARRHOEA IN THE LAST TWO WEEKS, THAT IS, SINCE (*day of the week*) OF THE WEEK BEFORE LAST? *(Diarrhoea is determined as perceived by mother or caretaker, or as three or more loose or watery stools per day, or blood in stool)*	Yes ..... 1 **No ..... 2** **Don't know 8**	 2⇨CA5 8⇨CA5
CA2	DURING THIS LAST EPISODE OF DIARRHOEA, DID (*name*) DRINK ANY OF THE FOLLOWING: *Read each item aloud and record response before proceeding to the next item.*		

Item	Yes	No	DK
CA2A. A FLUID MADE FROM A SPECIAL PACKET CALLED (*local name for ORS packet solution*)?	1	2	8
CA2B. GOVERNMENT-RECOMMENDED HOMEMADE FLUID?	1	2	8
CA2C. A PRE-PACKAGED ORS FLUID FOR DIARRHOEA?	1	2	8

CA3	DURING (*name's*) ILLNESS, DID HE/SHE DRINK MUCH LESS, ABOUT THE SAME, OR MORE THAN USUAL?	Much less or none ..... 1 About the same (or somewhat less) ..... 2 More ..... 3 Don't know 8	
CA4	DURING (*name's*) ILLNESS, DID HE/SHE EAT LESS, ABOUT THE SAME, OR MORE FOOD THAN USUAL? **If "less", probe:** MUCH LESS OR A LITTLE LESS?	None ..... 1 Much less ..... 2 Somewhat less ..... 3 About the same ..... 4 More ..... 5 Don't know 8	
CA5	HAS (*name*) HAD AN ILLNESS WITH A COUGH AT ANY TIME IN THE LAST TWO WEEKS, THAT IS, SINCE (*day of the week*) OF THE WEEK BEFORE LAST?	Yes ..... 1 **No ..... 2** **Don't know 8**	 2⇨CA12 8⇨CA12
CA6	WHEN (*name*) HAD AN ILLNESS WITH A COUGH, DID HE/SHE BREATHE FASTER THAN USUAL WITH SHORT, QUICK BREATHS OR HAVE DIFFICULTY BREATHING?	Yes ..... 1 **No ..... 2** **Don't know 8**	 2⇨CA12 8⇨CA12
CA7	WERE THE SYMPTOMS DUE TO A PROBLEM IN THE CHEST OR A BLOCKED NOSE?	Problem in chest ..... 1 **Blocked nose ..... 2** Both ..... 3 **Other (*specify* _____) ... 6** Don't know 8	 2⇨CA12 6⇨CA12
CA8	DID YOU SEEK ADVICE OR TREATMENT FOR THE ILLNESS OUTSIDE THE HOME?	Yes ..... 1 **No ..... 2** **Don't know 8**	 2⇨CA10 8⇨CA10

C.5: Care of Childhood Illness			CI
CA9	FROM WHERE DID YOU SEEK CARE? ANYWHERE ELSE? [Circle all providers mentioned, but do NOT prompt with any suggestions] [If source is hospital, health center, or clinic, write the name of the place below. Probe to identify the type of source and circle the appropriate code.] _____ (NAME OF PLACE)	**Public sector** Govt. hospital ..... A Govt. health centre ..... B Govt. health post ..... C Village health worker ..... D Mobile/outreach clinic ..... E Other public (specify_____) ..... H **Private medical sector** Private hospital/clinic ..... I Private physician ..... J Private pharmacy ..... K Mobile clinic ..... L Other private (specify_____) ..... O **Other source** Relative or friend ..... P Shop ..... Q Traditional practitioner ..... R Other (specify_____) X	
CA10	WAS (*name*) GIVEN MEDICINE TO TREAT THIS ILLNESS?	Yes ..... 1 **No ..... 2** **Don't know 8**	2⇨CA12 8⇨CA12
CA11	WHAT MEDICINE WAS (*name*) GIVEN? (Circle all medicines given)	Antibiotic ..... A Paracetamol/Panadol/Acetaminophen ..... P Aspirin ..... Q Ibuprofen ..... R Other (*specify*_____) ..... X Don't know ..... Z	
CA12	**Check UF11: Child age 0-35 months?** ☐ **Yes ⇨ Continue to CA13** ☐ **No ⇨ CA14**		
CA13	THE LAST TIME (*name*) PASSED STOOLS, WHAT WAS DONE TO DISPOSE OF THE STOOLS?	Child used toilet/latrine ..... 01 Put/rinsed into toilet or latrine ..... 02 Put/rinsed into drain or ditch ..... 03 Thrown into garbage (solid waste) ..... 04 Buried ..... 05 Left in the open ..... 06 Other (*specify*) _____ 96 Don't know 98	
CA14	[Ask **ONLY ONCE** for each mother/ caretaker] SOMETIMES CHILDREN HAVE SEVERE ILLNESSES AND SHOULD BE TAKEN IMMEDIATELY TO A HEALTH FACILITY. WHAT TYPES OF SYMPTOMS WOULD CAUSE YOU TO TAKE YOUR CHILD TO A HEALTH FACILITY RIGHT AWAY? [Keep asking for more signs or symptoms until the mother/caretaker cannot recall any additional symptoms. Circle all symptoms mentioned] [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 difficult breathing ..... E Child has blood in stool ..... F Child is drinking poorly ..... G Other1 (*specify*_____) . X Other 2(*specify*_____) . Y Other3 (*specify*_____) . Z	

C.6: Malaria			ML
#	Question	Options	Skip
ML1	IN THE LAST TWO WEEKS, THAT IS, SINCE (*day of the week*) OF THE WEEK BEFORE LAST, HAS (*name*) BEEN ILL WITH A FEVER?	Yes ..... 1 **No** ..... **2** **Don't' know** **8**	 2⇨ML10 8⇨ML10
ML2	WAS (*name*) SEEN AT A HEALTH FACILITY DURING THIS ILLNESS?	Yes ..... 1 **No** ..... **2** **Don't' know** **8**	 2⇨ML6 8⇨ML6
ML3	DID (*name*) TAKE A MEDICINE FOR FEVER OR MALARIA THAT WAS PROVIDED OR PRESCRIBED AT THE HEALTH FACILITY?	Yes ..... 1 **No** ..... **2** **Don't' know** **8**	 2⇨ML5 8⇨ML5
ML4	WHAT MEDICINE DID (*name*) TAKE THAT WAS PROVIDED OR PRESCRIBED AT THE HEALTH FACILITY? *[Circle all medicines mentioned]*	Anti-malarials: SP/Fansidar ..... A Chloroquine ..... B Amodiaquine ..... C Quinine ..... D Artemisinin-based combinations ..... E Other anti-malarial (specify_____). H Other medications: Paracetamol/Panadol/Acetaminophen ..... P Aspirin ..... Q Ibuprofen ..... R Other (*specify*_____) ..X Don't know ..... Z	
ML5	WAS (*name*) GIVEN MEDICINE FOR THE FEVER OR MALARIA BEFORE BEING TAKEN TO THE HEALTH FACILITY?	**Yes** ..... **1** **No** ..... **2** **Don't' know** **8**	1⇨ML7 2⇨ML8 8⇨ML8
ML6	WAS (*name*) GIVEN MEDICINE FOR FEVER OR MALARIA DURING THIS ILLNESS?	Yes ..... 1 **No** ..... **2** **Don't' know** **8**	 2⇨ML8 8⇨ML8
ML7	WHAT MEDICINE WAS (*name*) GIVEN? *[Circle all medicines given. Ask to see the medication if type is not known. If type of medication is still not determined, show typical anti-malarials to respondent.]*	Anti-malarials: SP/Fansidar ..... A Chloroquine ..... B Amodiaquine ..... C Quinine ..... D Artemisinin-based combinations ..... E Other anti-malarial (specify_____). H Other medications: Paracetamol/Panadol/Acetaminophen ..... P Aspirin ..... Q Ibuprofen ..... R Other (*specify*_____) ..X Don't know ..... Z	

C.6: Malaria			ML
#	Question	Options	Skip
ML8	**Check ML4 and/or ML7: Anti-malarial mentioned (Codes A-H)?** ☐ **Yes ⇨ Continue to ML9** ☐ **No ⇨ ML10**		
ML9	HOW LONG AFTER THE FEVER STARTED DID (*name*) FIRST TAKE (*name of anti-malarial from ML4 or ML7*)? [If multiple anti-malarials mentioned in ML4 or ML7, name all anti-malarial medicines mentioned] [Record the code for the day on which the first anti-malarial was given]	Same day ..... 0 Next day ..... 1 2 days after the fever ..... 2 3 days after the fever ..... 3 4 or more days after the fever ..... 4 DK 8	
ML10	DID (*name*) SLEEP UNDER A MOSQUITO NET LAST NIGHT?	Yes ..... 1 No ..... 2 Don't' know 8	

C.7: Child Immunization — IM

#	Question		Options	Skip
If an immunization card is available, copy the dates in IM2-IM8b for each type of immunization or vitamin A dose recorded on the card. IM9 is for recording vaccinations that are not recorded on the card. IM10-IM17 will only be asked when a card is not available.				
IM1	IS THERE A VACCINATION CARD FOR (*name*)?		Yes, seen ..... 1 **Yes, not seen ..... 2** **No 3**	 2⇨IM10 3⇨IM10
	(a) Copy dates for each vaccination from the card. (b) Write '44' in day column if card shows that vaccination was given but no date recorded.		Date of Immunization Day / Month / Year	
IM2	BCG	BCG		
IM3a	Polio 0	OPV 0		
IM3b	Polio 1	OPV 1		
IM3c	Polio 2	OPV 2		
IM3d	Polio 3	OPV 3		
IM4a	DPT - HepB + Hib: 1 (Pentavalent 1)	DPT 1		
IM4b	DPT - HepB + Hib: 2 (Pentavalent 2)	DPT 2		
IM4c	DPT - HepB + Hib: 3 (Pentavalent 3)	DPT 3		
IM6	Measles (or MMR)	Measles		
IM7	Yellow fever	Y Fever		
IM8a	Vitamin A (1)	Vit. A1		
IM8b	Vitamin A (2)	Vit A2		
IM9	IN ADDITION TO THE VACCINATIONS AND VITAMIN A CAPSULES SHOWN ON THIS CARD, DID (*name*) RECEIVE ANY OTHER VACCINATIONS – INCLUDING VACCINATIONS RECEIVED IN CAMPAIGNS OR IMMUNIZATION DAYS? [Record 'Yes' only if respondent mentions BCG, OPV 0-3, DPT 1-3, Measles or Vitamin A supplements.]		Yes ..... 1 (Probe for vaccinations and write '66' in the corresponding day column on IM2 to IM8B and go to IM19.) **No ..... 2** **Don't know 8**	 2⇨IM19 8⇨IM19
IM10	HAS (*name*) EVER RECEIVED ANY VACCINATIONS TO PREVENT HIM/HER FROM GETTING DISEASES, INCLUDING VACCINATIONS RECEIVED IN A CAMPAIGN OR IMMUNIZATION DAY?		Yes ..... 1 **No ..... 2** **Don't know 8**	 2⇨IM19 8⇨IM19
IM11	HAS (*name*) EVER BEEN GIVEN A BCG VACCINATION AGAINST TUBERCULOSIS – THAT IS, AN INJECTION IN THE ARM OR SHOULDER THAT CAUSED A SCAR?		Yes ..... 1 No ..... 2 Don't know 8	
IM12	HAS (*name*) EVER BEEN GIVEN ANY "VACCINATION DROPS IN THE MOUTH" TO PROTECT HIM/HER FROM GETTING DISEASES – THAT IS, POLIO?		Yes ..... 1 **No 2**	 2⇨IM15

C.7: Child Immunization — IM

		Don't know **8**	8⇨IM15
IM13	HOW OLD WAS (*name*) WHEN THE FIRST DOSE WAS GIVEN – JUST AFTER BIRTH (WITHIN TWO WEEKS) OR LATER?	Just after birth (within two weeks) ..... 1 Later 2	
IM14	HOW MANY TIMES (*name*) BEEN GIVEN THESE DROPS?	No. of times ..... ☐☐	
IM15	HAS (*name*) EVER BEEN GIVEN "**DPT/ HepB/ Hib1** VACCINATION INJECTIONS" – THAT IS, AN INJECTION IN THE THIGH AND BUTTOCKS – TO PREVENT HIM/HER FROM GETTING TETANUS, WHOOPING COUGH, DIPHTHERIA, HEPATITIS B, *HAEMOPHILIS INFLUENZAE TYPE B*? SOMETIMES GIVEN AT THE SAME TIME AS POLIO.	Yes ..... 1 **No** ..... **2** **Don't know** **8**	2⇨IM17 8⇨IM17
IM16	HOW MANY TIMES?	No. of times ..... ☐	
IM17	HAS (*name*) EVER BEEN GIVEN "MEASLES VACCINATION INJECTIONS" OR MMR – THAT IS, A SHOT IN THE ARM AT THE AGE OF 9 MONTHS OR OLDER - TO PREVENT HIM/HER FROM GETTING MEASLES?	Yes ..... 1 No ..... 2 Don't know 8	
IM18	HAS (*name*) EVER BEEN GIVEN "YELLOW FEVER VACCINATION INJECTIONS" – THAT IS, A SHOT IN THE ARM AT THE AGE OF **9** MONTHS OR OLDER - TO PREVENT HIM/HER FROM GETTING YELLOW FEVER? SOMETIMES GIVEN AT THE SAME TIME AS MEASLES	Yes ..... 1 No ..... 2 Don't know 8	

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:		Yes	No	DK
IM19a	CHILD HEALTH DAYS, VIT-A CAMPAIGN		1	2	8
IM19b	MEASLES & VITAMIN A CAMPAIGN		1	2	8
IM19c	CHILD HEALTH DAYS - VIT. A & DEWORMING CAMPAIGN		1	2	8

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

☐ **Yes ⇨ End the current Form and go for another 'Child < 5 Form' to administer the Form for the next eligible child.**

☐ **No ⇨ End the interview with this respondent by thanking him/her cooperation.**

If this the last eligible child in the HH, go on to Anthropometry Section (C.8).

C.8: Anthropometry — AN

#	Question	Options	Skip
	After completing Forms for all children age 6-59 months, the weight and height measurements of each child are to be taken. Record weight and length/height below, taking care to record the measurements on the correct Form for each child. Check the child's name and line number on the HH Listing Section before recording measurements.		
AN-A	**Check UF11: Child age 6-59 months?** ☐ **Yes ⇨ Continue to AN-B** ☐ **No ⇨ END**		
AN-B	Name and Line Number of the Child _____	Line Number ..... ☐☐	
AN1	Child's weight	Kilograms (Kg) ..... ☐☐.☐	
AN2	**Child's length or height. Check age of child in UF11:**		
	☐ **Child age below 24 months ⇨ Measure length (lying down).**	**Length (cm)** Lying down ..... ☐☐☐.☐	
	☐ **Child age 24+ months ⇨ Measure height (standing up).**	**Height (cm)** Standing ..... ☐☐☐.☐	
AN3	Measurer/investigator identification code	Measurer Code ..... ☐☐	
AN4	Result of measurement	Measured ..... 1 Not present ..... 2 Refused ..... 3 Others (Specify) _____ 6	
AN5	**Is there another child in the HH who is eligible for measurement?** ☐ **Yes ⇨ Record measurements for next child.** ☐ **No ⇨ End the interview with this household by thanking all participants for their cooperation.** **Gather together all Forms for this HH and check that all identification numbers are inserted on each page. Tally on the Household Information Panel the number of interviews completed.**		

Remarks/Observations by the Supervisor/Editor/Coordinators:

Kenya - Eastern Province, Isiolo District

Multiple Indicator Cluster Survey

2008