Kenya
Eastern Province
Meru South 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
Meru South District



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The Meru South district Multiple Indicator Cluster Survey (MICS), Eastern Province of Kenya was carried by the Kenya National Bureau of Statistics (KNBS). Financial and technical support was provided by the United Nations Children's Fund (UNICEF).

The survey was conducted as part of the third round of MICS surveys (MICS3), carried out around the world in more than 50 countries, in 2005-2006, following the first two rounds of MICS surveys that were conducted in 1995 and the year 2000. 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.

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List of Abbreviations

ACT	Artemisinin Combination Treatment
AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
ASFRs	Age Specific Fertility Rates
BCG	Bacillus Calmette Guerin (Tuberculosis)
CDC	Centers for Disease Control and Prevention
CO	Carbon monoxide
CSPro	Census and Survey Processing System
DPT	Diphtheria Pertussis Tetanus
EPI	Expanded Programme on Immunization
FGM/C	Female genital mutilation/cutting
GPI	Gender Parity Index
HIV	Human Immunodeficiency Virus
IDD	Iodine Deficiency Disorders
IPT	Intermittent Preventive Treatment
ITN	Insecticide Treated Net
IUD	Intrauterine Device
KEPI	Kenya Expanded Program on Immunization
KNBS	Kenya National Bureau of Statistics
LAM	Lactational Amenorrhea Method
MDG	Millennium Development Goals
MICS	Multiple Indicator Cluster Survey
MoH	Ministry of Health
NAR	Net Attendance Rate
NCHS	National Center for Health Statistics
NS	Not Shown
ORT	Oral Rehydration Treatment
ppm	Parts Per Million
RHF	Recommended Home Fluid
SO_2	Sulphur dioxide
SPSS	Statistical Package for Social Sciences
UNAIDS	United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNGASS	United Nations General Assembly Special Session on HIV/AIDS
UNICEF	United Nations Children's Fund
VIP	Ventilated Improved Pit
WFFC	World Fit For Children
WHO	World Health Organization

Foreword

The Meru South Multiple Indicator Cluster Survey (MICS) 2008 is one of the largest representative sample survey conducted in the district. The survey covered 1,142 households selected using appropriate statistical procedures.

The objective of the district level MICS was to provide disaggregated data and estimates related 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. In MICS 2008, information on specific areas such as, reproductive health, child mortality, child health, nutrition, child protection, water and sanitation, education, HIV/AIDS and orphans were collected.

The results indicate that the infant and child mortality rates in Meru South district are high, and also the district has a high proportion of under-weight children. It is also worth noting that the proportion of children aged 0-5 months who are exclusively breastfed is quite low.

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 hard work and dedication of the staff of the Kenya National Bureau of Statistics (KNBS) and the staff of UNICEF should also be acknowledged for successfully completing the survey, revising the reports and making the results available.

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



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Executive Summary

The Meru South district Multiple Indicator 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 1,142 households were collected using structured questionnaires. The Meru South 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; households with a child below 3 years and the other with no children below 3 years at the time of 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 5 members each, 1 supervisor, 1 editor/measurer and 3 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 48 per 1,000 live births and infant mortality rate is 31 per 1,000 live births.

Nutritional Status and Breastfeeding

Approximately 12 per cent of children aged 6-59 months in Meru South are moderately underweight, while a small proportion are severely underweight. The proportion of moderately stunted children was 21 per cent and only a few are wasted. About 71 per cent of the children are timely breastfed (given breast milk within an hour of birth), and 37 per cent of children aged between 0-3 months are exclusively breastfed. A high proportion (97 per cent) of infants was weighed at the time of birth. Approximately 96 per cent of the households are using iodized salt for cooking.

Immunization

Eighty three 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 given almost universally to children aged between 12-23 months, while 93 per cent of the children were vaccinated against measles. About 89 per cent of the mothers who had given birth during the two years preceding the survey reportedly received tetanus toxoid (TT) injection.

Care of illness

Only 34 per cent of children with diarrhoea during the 2 weeks preceding the survey received oral re-hydration therapy and 11 per cent reported home management of diarrhoea. Treatment was sought for 77 per cent of the children who had suspected pneumonia, while 31 per cent of the children with suspected pneumonia were given antibiotic treatment.

Malaria prevention

In Meru South, 67 per cent of the households had at least one insecticide treated mosquito net, and 60 per cent of all children below 5 years slept under a treated net. Only 17 per cent of children under five with fever during the two weeks preceding the survey were given appropriate anti-malarial treatment within 24 hours of onset of symptoms. About 43 per cent of women who gave birth during the two years preceding the survey reported receiving intermittent preventive malaria treatment.

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

Water and sanitation

Only 46 per cent of the Meru South population was using drinking water from an improved source and 42 per cent were reported treating the drinking water. Only 13 per cent of the population was using improved sanitation facilities and in nearly all (97 per cent) cases child stool was disposed safely.

Reproductive health

The total fertility rate in Meru South for the 3-year preceding the survey was 3.7 children per woman. Teenage pregnancy was 15 per cent, i.e., proportion of women aged 15-19 years who began child bearing. Ninety eight per cent of mothers who gave birth in the past 2 years had an antenatal check-up while 80 per cent had given birth to their babies in an institution. About 13 per cent of women aged between 20-49 years were married before reaching age 18 years, and nine per cent of women aged 15-19 years were by then married or in union.

Education

In Meru South, about 3 out of 5 children, (59 per cent) of the primary school entry age were attending primary school. The net primary school attendance rate was 91 per cent and that of secondary was only 30 per cent. Female adult literacy rate in Meru South is 87 per cent.

Child protection

Over three quarters (76 per cent) of children under-five in Meru South were registered at birth. About seven per cent of children aged between 5-14 years in Meru South were engaged in child labour. A high proportion (81 per cent) of children age 2-14 years received any psychological or physical punishment during one month prior to the survey.

HIV and AIDS

Only 41 per cent of young women aged between 15-24 years in Meru South had comprehensive knowledge about HIV prevention while 46 per cent had knowledge about mother-to-child transmission of HIV. Sixty per cent of women age 15-49 years reported that they had been tested for HIV. About 88 per cent of women who delivered a child in the last 2 years prior the survey received counselling on prevention of mother-to-child transmission of HIV and 95 per cent had the HIV test done.

Orphans and vulnerable children

About six per cent of children below 18 years in Meru South were orphans and very few were vulnerable by the time of the survey. Among children who were under 18 years, 16 per cent were not living with any biological parent.

Female Genital Mutilation/ Cutting (FGM/C) and Domestic Violence

About 27 per cent of women aged 15-49 years in Meru South had any form of FGM/C, of which five per cent had an extreme form of FGM/C. Only four per cent of women who have heard of FGM/C believe that the practice should be continued. Approximately 58 per cent of women in Meru South believe that a husband should beat his wife if she goes out without telling him or if she neglects children or if she argues with him or refuses to have sex with him or if she burns the food.

Summary Table of Findings

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

Topic	MICS Indicator Number	MDG Indicator Number	Indicator	Value & Unit	
CHILD MORTALITY					
Child mortality	1	13	Under-five mortality rate	48.0	per thousand
	2	14	Infant mortality rate	31.0	per thousand
NUTRITION					
Nutritional status			Underweight prevalence (below -2 SD)	12.3	per cent
			Stunting prevalence (below -2 SD)	20.5	per cent
			Wasting prevalence (below -2 SD)	2.2	per cent
Breastfeeding	45		Timely initiation of breastfeeding	71.3	per cent
	15		Exclusive breastfeeding rate	36.9	per cent
	16		Continued breastfeeding rate		
			at 12-15 months	95.9	per cent
			at 20-23 months	75.7	per cent
	17		Timely complementary feeding rate	78.8	per cent
	18		Frequency of complementary feeding	69.3	per cent
	19		Adequately fed infants	44.2	per cent
Salt iodization	41		Iodized salt consumption	95.9	per cent
Vitamin A	42		Vitamin A supplementation (under-fives)	50.0	per cent
	43		Vitamin A supplementation (post-partum mothers)	63.5	per cent
Low birth weight	9		Low birth weight infants	8.4	per cent
	10		Infants weighed at birth	96.7	per cent
CHILD HEALTH					
Immunization	25		Tuberculosis immunization coverage (by 12 months)	99.6	per cent
	26		Polio immunization coverage (by 12 months)	89.6	per cent
	27		DPT immunization coverage (by 12 months)	97.4	per cent
	28	15	Measles immunization coverage (by 12 months)	93.3	per cent
	31		Fully immunized children (by 12 months)	83.3	per cent
Tetanus toxoid	32		Neonatal tetanus protection	88.8	per cent
Care of illness	33		Use of Oral Rehydration therapy (ORT)	33.9	per cent
	34		Home management of diarrhoea	11.3	per cent
	35		Received ORT or increased fluids, and continued feeding	19.4	per cent
	23		Care seeking for suspected pneumonia	76.7	per cent
	22		Antibiotic treatment of suspected pneumonia	30.6	per cent
Solid fuel use	24	29	Solid fuels	97.1	per cent
Malaria	36		Households having insecticide-treated nets (ITNs)	67.0	per cent
	37	22	Under-fives sleeping under insecticide-treated nets	69.2	per cent
	38		Under-fives sleeping under mosquito nets	69.3	per cent
	39	22	Antimalarial treatment (under-fives)	16.6	per cent
	40		Intermittent preventive malaria treatment (pregnant women)	42.8	per cent
ENVIRONMENT					
Water and Sanitation	11	30	Use of improved drinking water sources	51.8	per cent
	13		Water treatment	41.7	per cent
	12	31	Use of improved sanitation facilities	20.9	per cent
	14		Disposal of child's faeces	96.6	per cent

Topic	MICS Indicator Number	MDG Indicator Number	Indicator	Value & Unit	
REPRODUCTIVE HEALTH					
Contraception and unmet need	21	19c	Contraceptive prevalence	73.0	per cent
	98		Unmet need for family planning	97.3	per cent
Maternal and newborn health	20		Antenatal care	97.9	per cent
	44		Content of antenatal care		
			Blood test taken	97.1	per cent
			Blood pressure measured	95.2	per cent
			Urine specimen taken	96.4	per cent
			Weight measured	91.0	per cent
	4	17	Skilled attendant at delivery	80.9	per cent
	5		Institutional deliveries	79.7	per cent
			Total fertility rate	3.7	rate
EDUCATION					
Education	52		Pre-school attendance	21.1	per cent
	53		School readiness	97.4	per cent
	54		Net intake rate in primary education	58.8	per cent
	55	6	Net primary school attendance rate	91.0	per cent
	56		Net secondary school attendance rate	30.0	per cent
			Adult literacy rate (female)	87.3	per cent
CHILD PROTECTION					
Birth registration	62		Birth registration	75.8	per cent
Child labour	71		Child labour	7.4	per cent
	72		Labourer students	96.6	per cent
	73		Student labourers	7.4	per cent
Child discipline	74		Any psychological/physical punishment	80.5	per cent
Early marriage and polygyny	67		Marriage before age 15	3.4	per cent
			Marriage before age 18	13.4	per cent
	68		Young women aged 15-19 currently married/in union	8.6	per cent
Female genital mutilation/ Cutting	66		Approval for FGM/C	3.9	per cent
	63		Prevalence of female genital mutilation/cutting (FGM/C)	27.1	per cent
	64		Prevalence of extreme form of FGM/C	4.6	per cent
	65		FGM/C prevalence among daughters	2.7	per cent
Domestic violence	100		Attitudes towards domestic violence	58.3	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	41.4	per cent
	89		Knowledge of mother- to-child transmission of HIV	46.2	per cent
	86		Attitude towards people with HIV/AIDS	29.3	per cent
	87		Women who know where to be tested for HIV	98.4	per cent
	88		Women who have been tested for HIV	59.8	per cent
	90		Counselling coverage for the prevention of mother-to-child transmission of HIV	88.4	per cent
	91		Testing coverage for the prevention of mother-to-child transmission of HIV	95.2	per cent
Support to orphaned and vulnerable children	75		Prevalence of orphans	6.3	per cent
	78		Children's living arrangements	15.5	per cent
	76		Prevalence of vulnerable children	2.1	per cent
	77	20	School attendance of orphans versus non-orphans	1.01	ratio
	81		External support to children orphaned and made vulnerable by HIV/AIDS	58.4	per cent

Introduction 1

1.1 Background

This report is based on the Meru South district Multiple Indicator Cluster Survey, conducted in 2008 by the Kenya National Bureau of Statistics. The survey provides valuable information on the situation of children and women in Meru South district, and was based, in large part, on the needs to monitor progress towards goals and targets emanating from recent international agreements: the Millennium Declaration, adopted by all 191 United Nations Member States in September 2000, and the Plan of Action of A World Fit For Children, adopted by 189 Member States at the United Nations Special Session on Children in May 2002. 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, analyse and disaggregate data, including by sex, age and other relevant factors that may lead to disparities, and support a wide range of child-focused research. We will enhance international cooperation to support statistical capacity-building efforts and build community capacity for monitoring, assessment and planning." (**A World Fit for Children**, paragraph 60)

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

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

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

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

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

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 survey was to identify issues affecting children and the strategies to address them. Measuring indicators of progress towards declared goals through proper monitoring and evaluation of projects/programmes and other interventions e.g. emergency response and humanitarian assistance are vital components of the NPA.

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

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 MICS 2008 in Meru South district of Eastern Province are presented in this report.

1.2 Survey Objectives

The 2008 Meru South District Multiple Indicator Cluster Survey had as its primary objectives:

- To provide up-to-date information for assessing the situation of children and women in Meru South 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;
- 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 Meru South 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, and the sample was selected in two stages. Within each district, 50 clusters (census enumeration areas) were selected with Probability Proportional to Size. Household listing was carried out within the selected enumeration areas, and households were stratified into two groups; the first one having child below 3 years and the second not having child below 3 years. A systematic sample of 16 households from stratum one and 8 households from stratum two was drawn using a random start. The sample was stratified and was not self-weighting. For reporting the results, sample weights were used. A more detailed description of the sample design can be found in Appendix A.

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 women's questionnaire administered in each household to all women aged between 15-49 years; and (3) an under-5 questionnaire, administered to mothers or caretakers of all children under-5 living in the household. The questionnaires included the following modules:

The Household Questionnaire:

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

The Questionnaire for Individual Women:

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

The Questionnaire for Children below five years was administered to mothers or caretakers of children below 5 years of age[2] living in the households. Normally, the questionnaire was administered to mothers of under-5 children; in cases where the mother was not listed in the household roster, a primary caretaker for the child was identified and interviewed. The questionnaire included the following modules:

- Birth Registration and Early Learning
- Child Development
- Vitamin A

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

- 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 age 0-59 months. Details and findings of these measurements are provided in the respective sections of the report.

2.3 Training and Fieldwork

Training for the fieldwork was conducted in two parts, 3 days training for the mapping and listing teams and 12 days training for the main survey teams in June 2008. 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 to practice interviewing in different locations of Embu district.

The household listing was carried out by 3 teams; each was comprised of a lister and mapper. These three teams were supervised by the DSO and the whole listing operation was being monitored by the district co-ordinator located at KNBS headquarters. The data were collected by 2 teams; each was comprised of 3 interviewers, one driver, one editor/measurer and a supervisor. Fieldwork began in end June 2008 and concluded in August 2008.

2.4 Data Processing

Data were entered using the (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.

[3] The model MICS3 questionnaire can be found at http://www.childinfo.org, or in UNICEF, 2006.

Sample Coverage and Households Characteristics 3

3.1 Sample Coverage

Response rates for the survey are shown in table 3.1. After completion of household listing operation, a sample of 1,200 households was selected. All households were found to be occupied but 1,142 were successfully interviewed yielding a response rate of 95 per cent.

A sample of women of reproductive ages showed that 1,143 were eligible for interviews of which 1,079 were interviewed resulting in 94 per cent response rate. Combining household and women response rate translated to an overall 90 per cent response for women. On the other hand, 924 children aged less than 5 years were eligible for the survey of which 916 had their information collected; translated to a response rate of 99 per cent. Combining a household response and children response rate, an overall 94 per cent for children was achieved.

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, MICS Meru South District, 2008

Number of households	
Sampled (H_s)	1,200
Occupied (H_o)	1,200
Interviewed (H_i)	1,142
Response rate (H_r)	95.2
Number of women	
Eligible (W_e)	1,143
Interviewed (W_i)	1,079
Response rate (W_r)	94.4
Overall response rate (W_{or})	89.8
Number of children under 5	
Eligible (C_e)	924
Information collected (C_i)	916
Response rate (C_r)	99.1
Overall response rate (C_{or})	94.3

$H_r = H_i / H_o$ (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 Households

The population distribution for Meru South shows a youthful population as shown in table 3.2 (HH.2) and population pyramid (figure 3.1). The children under-five constitute 11 per cent of the population while those aged over 70 are about four per cent. On the dependency age groups, the economically active population (15-64 years) are 57 per cent and 54 per cent for males and females, respectively. The children (0-17 years) are approximately 44 per cent.

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, MICS Meru South District, 2008

	Males		Females		Total	
	Number	Percentage	Number	Percentage	Number	Percentage
Age						
0-4	244	11.1	244	11	488	11
5-9	297	13.5	296	13.3	593	13.4
10-14	270	12.3	321	14.4	590	13.4
15-19	249	11.3	177	8	426	9.6
20-24	194	8.8	166	7.5	360	8.1
25-29	153	7	146	6.6	299	6.8
30-34	126	5.8	172	7.7	298	6.8
35-39	153	7	118	5.3	271	6.1
40-44	88	4	99	4.5	188	4.3
45-49	94	4.3	72	3.2	166	3.7
50-54	64	2.9	142	6.4	206	4.7
55-59	57	2.6	72	3.3	129	2.9
60-64	71	3.3	40	1.8	112	2.5
65-69	33	1.5	64	2.9	97	2.2
70+	95	4.3	87	3.9	182	4.1
Missing/DK	7	(*)	6	(*)	13	(*)
Dependency age groups						
< 15	811	36.9	861	38.7	1672	37.8
15-64	1250	57	1205	54.2	2456	55.6
65 +	127	5.8	151	6.8	279	6.3
Missing/DK	7	0.3	6	0.3	13	0.3
Children aged 0-17	960	43.7	969	43.6	1930	43.7
Adults 18+/Missing/ DK	1236	56.3	1255	56.4	2490	56.3
Total	**2196**	**100**	**2224**	**100**	**4420**	**100**

Figure 3.1: Age and Sex distribution of household population, Meru South District, 2008

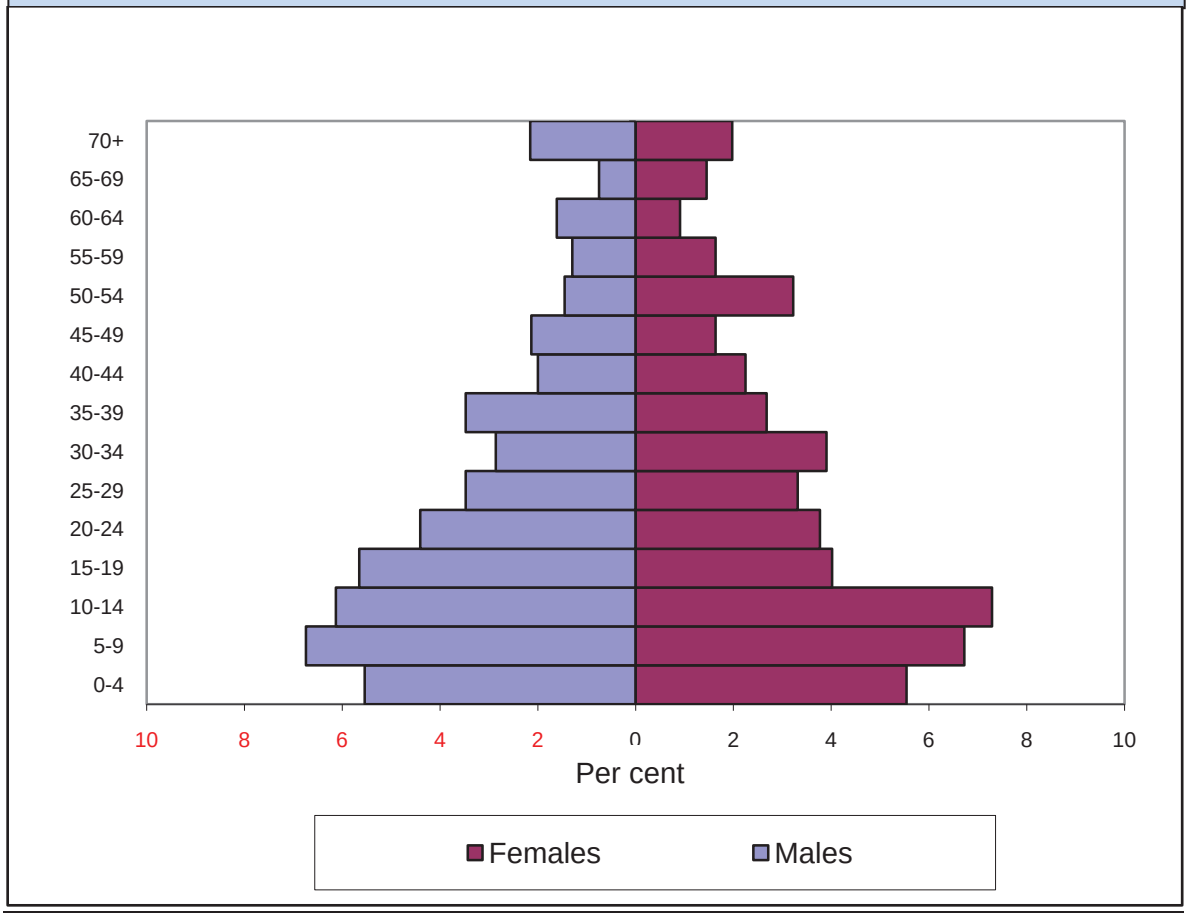


Table 3.3 (HH.3) shows the distribution of household composition. The results show that female-headed households were approximately 28 per cent. Three quarters of households had at least one child aged less than 18 years with 35 per cent having a child less than five years of age. In terms of the number of household members, about 44 per cent of the households had a composition of less than four members while 37 per cent had a membership of 4-5 people. About 67 per cent of the households had at least one woman in the reproductive age group of 15-49 years.

Table 3.3 (HH.3): Household composition

Percentage distribution of households by selected characteristics, MICS Meru South District, 2008

Characteristics	Weighted percentage	Number of households	
		Weighted	Un-weighted
Sex of household head			
Male	72.4	827	875
Female	27.6	315	267
Number of household members			
1	13.6	155	88
2-3	30.4	347	318
4-5	37.4	427	471
6-7	14.4	165	199
8-9	3.6	41	56
10+	0.7	8	10
At least one child aged < 18 years	74.5	1142	1142
At least one child aged < 5 years	35.4	1142	1142
At least one woman aged 15-49 years	67.2	1142	1142
Total	**100**	**1142**	**1142**

3.3 Characteristics of Female Respondents

Since the MICS surveys targets women and children, a key component of the survey is the women individual interviews. Information on eligible women was collected and summary demographic results presented in table 3.4(HH.4) below. The table shows the background characteristics of the women aged between 15-49 years in terms of age, marital/union status, motherhood status, education as well as wealth index.

The age distribution shows that the highest age group is 30-34 comprising of 20 per cent while the least is 45-49 with eight per cent. Majority of the women are married or in union (62 per cent), while formerly married or formerly in union constitutes 10 per cent and the remainder (28 per cent) are never married or never been in union. A third of the women have never given birth. Further, two thirds (61.3 per cent) of the women have the highest level of education as primary school compared to one third (31 per cent) with secondary education and above. About 14 per cent of the women of reproductive age in Meru South belong to the lowest wealth quintile compared to 45 per cent and 41 per cent in the middle and upper classes, respectively.

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

Percentage distribution of women aged 15-49 years by background characteristics, MICS Meru South District, 2008

Characteristics	Weighted percentage	Number of women	
		Weighted	Un-weighted
Age			
15-19	15.7	170	142
20-24	15.8	171	240
25-29	16.1	174	219
30-34	19.7	213	200
35-39	13.3	143	121
40-44	11.3	122	89
45-49	8	87	68
Marital/Union status			
Currently married/in union	62	669	735
Formerly married/in union	10.4	113	102
Never married/in union	27.5	297	242
Motherhood status			
Ever gave birth	78.1	842	913
Never gave birth	21.9	237	166
Education			
None	7.7	83	81
Primary	61.3	661	689
Secondary +	31	335	308
Wealth index			
Low	13.8	149	171
Medium	44.9	485	476
High	41.3	446	432
Total	**100**	**1079**	**1079**

3.4 Characteristics of Children below Five years

The sex, age, mother's education, wealth index of all children under–five is presented in table 3.5 (HH.5). The sex distribution shows a nearly equal composition of females (50 per cent) and males (50 per cent). The children aged less than one year constitute seven per cent and those aged less than six months constitute 14 per cent of the entire children population. Mother's education level is an important factor that may influence the up-bringing of the children. The results shows that majority (61 per cent) of children have mothers with primary school level of education. Approximately, 11 per cent of children have mothers who have no education. Nearly half of the children (48 per cent) belong to the middle class wealth quintile with 19 per cent falling in the lowest quintile and the remaining 33 per cent in the high wealth index category.

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

Percentage distribution of children under five years of age by background characteristics, MICS Meru South District, 2008

Characteristics	Weighted percentage	Number of under-5 children	
		Weighted	Un-weighted
Sex			
Male	49.7	455	457
Female	50.3	461	459
Age			
< 6 months	13.7	126	143
6-11 months	7.3	67	84
12-23 months	22.7	208	236
24-35 months	22..7	208	225
36-47 months	16.1	148	125
48-59 months	17.3	159	103
Mother's education			
None	10.8	99	80
Primary	61	559	575
Secondary+	28.1	258	260
Wealth index			
Low	19.2	175	168
Medium	48.1	440	428
High	32.8	300	320
Total	**100**	**916**	**916**

Child Mortality 4

One of the overarching goals of the Millennium Development Goals (MDGs) and the World Fit for Children (WFFC) is to reduce infant and under-five mortality. Specifically, the MDGs call for the reduction in under-five mortality by two-thirds between 1990 and 2015.Monitoring progress towards this goal is an important but challenging objective. Measuring childhood mortality may seem easy, but attempts using direct questions, such as "Has anyone in this household died in the last year?" give inaccurate results. However, in Kenya district level MICS, direct measures of child mortality from birth histories has been used and is one of the best ways of obtaining this information. The birth history obtained from women aged 15-49 years include number of children ever born and living by sex, and date of birth of each child born. If the child is not alive at the time of survey, information on age of the child at the time of death is also obtained. This method is being used by Demographic Health Surveys (DHS) worldwide including that of Kenya Demographic Health Survey (KDHS), which allows us to compare the mortality rates with KDHS.

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

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

4.1 Levels of Childhood Mortality

Levels of child mortality for Meru South district are shown in table 4.1. The results show that mortality rates for infant, neonatal, post-natal, child and under-five are varied. For every 1,000 live births, 17 children die before one month of life, 31 die before the first birthday, 14 die between one month and one year of life, and 48 die before the fifth birthday. The child mortality refers to probability of dying between one and five year of life which stands at 17 per 1,000 children surviving up to 12 months of age.

Table 4.1: Child mortality

Infant and under-five mortality rates by 10 year periods, Meru South, 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	17	14	31	17	48
10-19	22	10	32	15	46

Child Nutrition 5

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

Malnutrition is associated with more than half of all children deaths worldwide. Undernourished children are more likely to die from common childhood ailments, and for those who survive, had recurring sicknesses and faltering growth. Three-quarters of the children who died from causes related to malnutrition were only mildly or moderately malnourished – showing no outward sign of their vulnerability. One of the Millennium Development Goals target is to reduce by half the proportion of people who suffer from hunger 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 2 years of age. A reduction in the prevalence of malnutrition will assist in the goal to reduce child mortality.

5.1 Nutritional Status

In a well-nourished population, there is a reference distribution of height and weight for children under age five. Under-nourishment in a population can be gauged by comparing children to a reference population. The reference population used in this report is the WHO/CDC/NCHS reference, which was recommended for use by UNICEF and the World Health Organization at the time the survey was implemented. Each of the three nutritional status indicators can be expressed in standard deviation units (z-scores) from the median of the reference population.

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

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

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

In district level MICS, weights and heights of all children age 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 and are summarized in figure 5.1 and table 5.1.

The results from Meru South district show that 12 per cent of all children aged between 6-59 months are moderately underweight while a minimal percentage are severely underweight. The malnutrition measurement among the sexes has nearly similar distribution as shown by 13 per cent for males and 12 per cent for females for moderately underweight.

Table 5.1 (NU.1): Child malnourishment

Percentage of children aged 6-59 months were are severely or moderately malnourished, MICS Meru South District, 2008

Characteristics	Weight-for-age		Height-for-age		Weight-for-height			Number of children aged 6-59 months
	% below - 2 SD	% below - 3 SD	% below - 2 SD	% below - 3 SD	% below - 2 SD	% below - 3 SD	% above + 2 SD	
Sex								
Male	12.5	1.9	23.1	5	2.1	0.4	3.1	381
Female	12.2	1.5	17.8	4.3	2.2	0.4	4.5	378
Age								
6-11 months	6.2	0.8	14.0	2.4	2.2	0	12.6	65
12-23 months	19.1	3.4	30.6	8.7	3.9	0.6	3.1	203
24-35 months	12.4	1.4	18.1	3.1	2.2	0.9	2.9	194
36-47 months	10.9	1.4	16.4	4.1	1.2	0	2.8	141
48-59 months	7	0	16.8	2.6	0.8	0	2.9	149
Mother's education								
None	16	1.1	21.1	2.9	1.4	0	4.4	86
Primary	13.6	2.1	24.6	6.6	2.3	0.5	3.5	457
Secondary+	8.2	1.1	11.4	1.5	2.1	0.4	4.2	215
Wealth index								
Low	20	1.7	32.5	5.3	1.7	0.4	1.8	150
Medium	12.2	1.7	20	5.7	2.9	0.7	3.5	356
High	8	1.6	14	2.9	1.3	0	5.5	253
Total	**12.3**	**1.7**	**20.5**	**4.7**	**2.2**	**0.4**	**3.8**	**758**

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 percentage of children who are overweight, which takes into account those children whose weight for height is above 2 standard deviations from the median of the reference population.

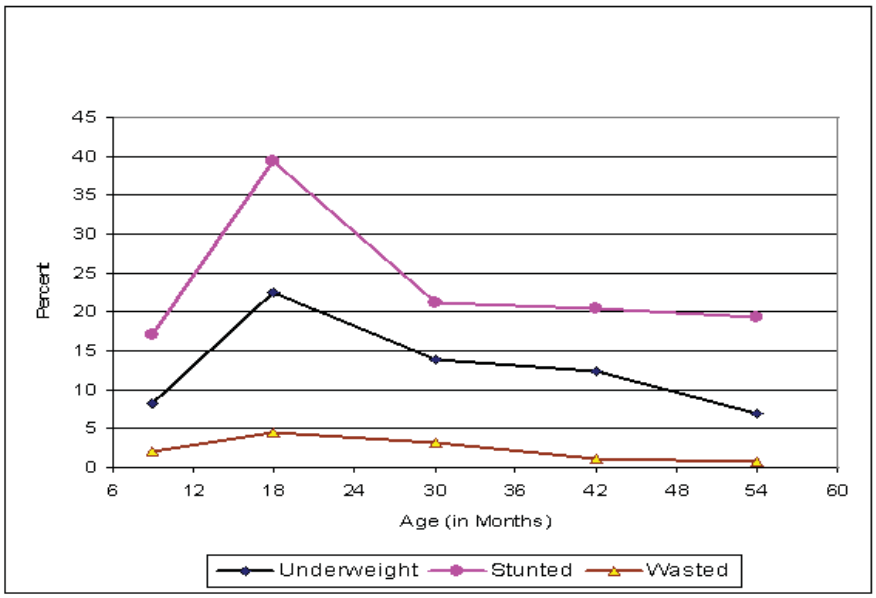
The per cent 'below –2 standard deviations' includes those who fall -3 standard deviations below the median.

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.

A linear growth measurement shows that one in every five (21 per cent) children are moderately stunted while close to five per cent are severely stunted. The 12-23 months age category has the worst cases of height-for-age malnourishment as shown by 31 per cent for moderately stunted and nine per cent for severely stunted. The males have a higher prevalence of stunting (23 per cent moderately stunted and five per cent for severely stunted) as compared to females (18 per cent moderately stunted and four per cent for severely stunted).

The prevalence of wasting is relatively low in Meru South district. Overweight seems to be a rising health problem in the district. For example, the proportion of overweight children (four per cent) in Meru South is higher than combined proportion for moderately wasted and severely wasted children. Differentials by wealth index reveal that the more wealthier a child's background, the more the likelihood of the child being overweight with the middle and upper having overweight prevalences of four per cent and six per cent, respectively.

Figure 5.1: Percentage of children age 6-59 months who are undernourished, Meru South district, 2008



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 malnutrition and is unsafe if clean water is not readily available. The World Fit for Children goal states that children should be exclusively breastfed for 6 months and continue to be breastfed with safe, appropriate and adequate complementary feeding for up to 2 years of age and beyond.

WHO/UNICEF have the following feeding recommendations:

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

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

The indicators of recommended child feeding practices are as follows:

- Exclusive breastfeeding rate (< 6 months &< 4 months)
- Timely complementary feeding rate (6-9 months)
- Continued breastfeeding rate (12-15 & 20-23 months)
- Timely initiation of breastfeeding (within 1 hour of birth)
- Frequency of complementary feeding (6-11 months)
- Adequately fed infants (0-11 months)

The table 5.2 (NU.2) shows the proportions of women aged between 15-49 years who started breastfeeding their children within one hour of birth and percentage that started breastfeeding within one day of birth. The more educated mothers tend to start breastfeeding within one hour of birth as shown by 74 per cent for those with primary education and 68 per cent for those with secondary or higher education as compared to 63 per cent for those with no education. A similar trend is observed for mothers' breastfeeding within one day of birth. Overall, 71 per cent of mothers breastfeed their babies within one hour of birth while nearly 93 per cent breastfeed within one day of birth.

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, MICS Meru South District, 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	73.8	90.8	68
6-11 months	68	92.4	52
12-23 months	71.9	93.3	129
Mother's education			
None	(62.6)	(85.8)	17
Primary	73.5	93.5	168
Secondary +	68.1	91.5	66
Wealth index			
Low	76.6	92.5	55
Medium	77.5	93.9	111
High	60.1	90.7	86
Total	**71.3**	**92.5**	**252**

* MICS indicator 45

The rates of exclusive and complementary breastfeeding are presented in table 5.3a and 5.3b. Exclusively breastfed refers to infants who received only breast milk (and vitamins, mineral supplements, or medicine) for six months. Over a third (37 per cent) of infants aged 3 months and below are exclusively being breastfed in Meru South District with the proportion going down to just over a quarter (26 per cent) for exclusive breastfed infants aged less than 5 months and below. Infants from low wealth index households are less likely to be exclusively breastfed compared to children from high wealth index households, although the patterns are less clear due to fewer cases.

Table 5.3a (NU.3): Breastfeeding

Percentage of living children according to breastfeeding status at each age group, MICS Meru South District, 2008

Characteristics	Children age 0-3 months		Children age 0-5 months	
	Percentage exclusively breastfed *	Number of children	Percentage exclusively breastfed	Number of children
Sex				
Male	(45.2)	27	27.6	54
Female	(30.9)	38	23.4	56
Mother's education				
None	(*)	2	(*)	4
Primary	(33)	41	20.3	73
Secondary +	(42.1)	22	(36.1)	33
Wealth index				
Low	(*)	7	(*)	17
Medium	(41.2)	38	31	61
High	(38.1)	21	(27)	32
Total	**36.9**	**65**	**25.5**	**110**

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.

(*): Based on less than 25 un-weighted cases, hence not shown.
(): Based on l 25-50 un-weighted cases,
* MICS indicator 45

Over three quarters of children (76 per cent) aged between 20 to 23 months are complementary breastfed in Meru South district as shown in table 5.3b. For children aged 6-9 months and 12-15 months, about 79 and 96 per cent are complementary breastfed, respectively.

Table 5.3b (NU.3): Complementary feeding

Percentage of living children according to breastfeeding status at each age group, MICS Meru South District, 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: Percentage breastfed ***	Children age 20-23 months: Number of children
Sex						
Male	(78.4)	24	93.4	42	73.2	37
Female	(79.2)	31	98.5	42	78	41
Mother's education						
None	(*)	2	(*)	3	38.5	6
Primary	(76.6)	34	96.2	57	83.6	53
Secondary +	(85.3)	19	(*)	23	66	19
Wealth index						
Low	(*)	11	(*)	17	79.8	20
Medium	(74.9)	22	(92)	35	70.5	29
High	(83)	21	(98.1)	32	78.1	30
Total	**78.8**	**54**	**95.9**	**84**	**75.7**	**78**

* MICS indicator 15 ** MICS indicator 16 *** MICS indicator 17
( ) Based on less than 25 un-weighted cases ( ) Based on 25-50 un-weighted cases

Figure 5.2 shows the detailed pattern of breastfeeding by the child's age in months. Even at the earliest ages, the majority of children are receiving liquids or foods other than breast milk.

Figure 5.2: Infant feeding patterns by age: Percentage distribution of children aged under 3 years by feeding pattern by age group, Meru South district, 2008

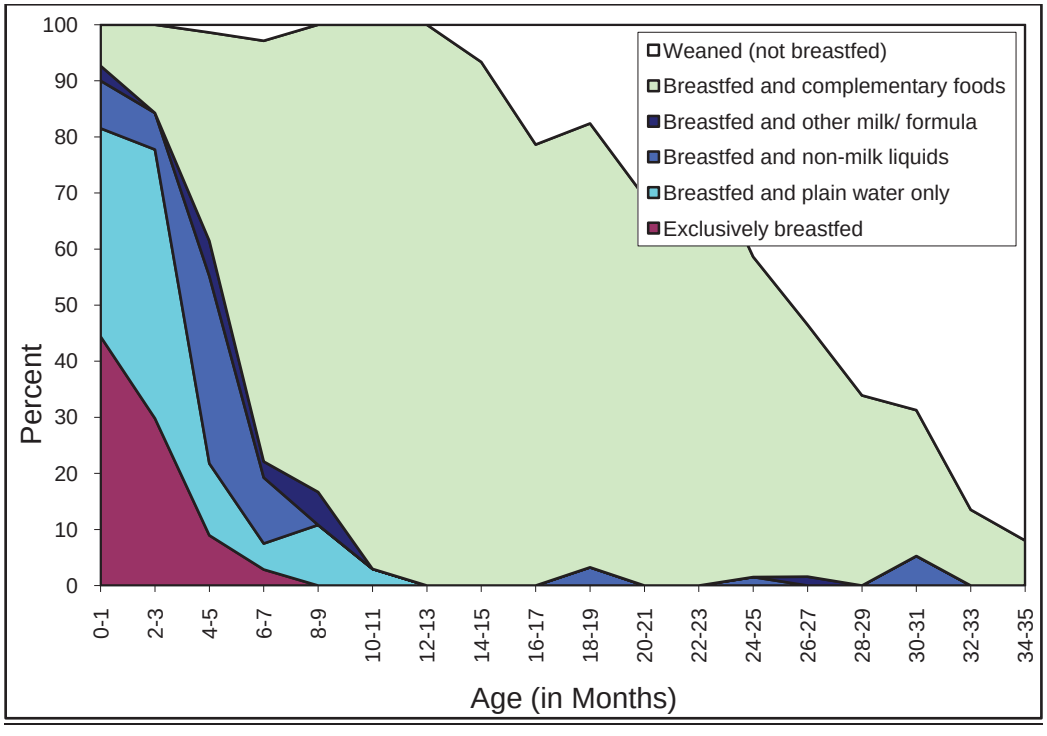


Table 5.4 presents the distribution of adequacy of feeding infants aged between 0 to 11 months in Meru South district. In general, lower than half (44 per cent) of infants aged between 0 to 11 months are adequately fed. Children aged less than 6 months are considered adequately fed if they are exclusively breastfed and this percentage is only 26 per cent for the district. Over 72 per cent of 6 - 8 months are adequately fed having received breast milk and complementary food at least 2 times in prior 24 hours. For those aged between 9 months and 11 months, 65 per cent are adequately fed -- having received breast milk and complementary food for at least 3 times in 24 hours. Over two thirds (69 per cent) of children aged 6-11 months are adequately fed in the district.

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, MICS Meru South District, 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	27.6	74.4	52.4	65.1	43.5	94
Female	23.4	70.4	76.6	73.2	44.9	99
Mother's education						
None	(*)	(*)	(*)	(*)	(*)	7
Primary	20.3	68.5	61.5	65.3	39.4	128
Secondary +	36.1	81.9	72.1	77.9	54.2	58
Wealth index						
Low	(3)	(75.2)	(66)	(70)	(39.6)	38
Medium	31	65.3	49	58.8	40.8	94
High	27	79	83.9	81	52.6	61
Total	**25.5**	**72.4**	**65.4**	**69.3**	**44.2**	**193**

(*) Based on less than 25 un-weighted cases
( ) Based on 25-50 un-weighted cases
* MICS indicator 18
** MICS indicator 19

5.3 Salt Iodization

Iodine Deficiency Disorders (IDD) is the world's leading cause of preventable mental retardation and impaired psychomotor development in young children. In its most extreme form, iodine deficiency causes cretinism. It also increases the risks of stillbirth and miscarriage in pregnant women. Iodine deficiency is most commonly and visibly associated with goitre. IDD takes its greatest toll in impaired mental growth and development, contributing in turn to poor school performance, reduced intellectual ability, and impaired work performance. The 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 98 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. The results are shown in table 5.5

of where only few households reported having no salt available. In 96 per cent of households, salt was found to be adequately iodized. Urban areas had a slightly lower proportion (90 per cent) of households consuming adequately iodized salt in comparison with the rural areas with 96 per cent. The variations of adequately iodized salts by wealth categories shows that the proportion of households using adequately iodized salt was lowest among low wealth index households (92 per cent) and highest among high wealth index households at 97 per cent.

Table 5.5 (NU.5): Iodized salt consumption

Percentage of households consuming adequately iodized salt, MICS Meru South District, 2008

Characteristic	Percentage of households in which salt was tested	Number of households interviewed	Percentage of households with Salt test result: No salt	< 15 PPM	15+ PPM*	Total	Number of households in which salt was tested or with no salt
Area							
Urban	(89.8)	41	10.2	0	(89.8)	100	41
Rural	97.9	1101	2	1.9	96.1	100	1101
Wealth index							
Low	94.4	204	5.4	2.2	92.4	100	203
Medium	97.4	489	2.6	1.4	96	100	489
High	99.3	449	0.7	2	97.4	100	449
Total	**97.6**	**1142**	**2.3**	**1.8**	**95.9**	**100**	**1142**

*MICS indicator 41
(): Based on25-50 un-weighted cases

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 therefore critical to the achievement of the fourth Millennium Development Goal: a two-thirds reduction in under-five mortality by the year 2015.

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

vitamin A, which are depleted during pregnancy and lactation. For countries with vitamin A supplementation programs, the definition of the indicator is the percentage of children 6-59 months of age receiving at least one high dose vitamin A supplement in the last six months.

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

Within the six months prior to the survey, half the children in Meru South received a high dose of Vitamin A supplement as shown in table 5.6 (NU.6). Differentials by gender show that a higher proportion (54 per cent) of boys compared to girls (47 per cent) received the required vitamin A supplementation within the past six months. Most of the children received Vitamin A supplement during the ages of 6-11 months within the prescribed period followed by those aged between 12-23 months at 64 per cent. An increasing trend of the level of vitamin A supplementation is evident with increase in the mother's level of education.

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, MICS Meru South district, 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	Total	Number of children aged 6-59 months
Sex							
Male	53.7	33.4	2.6	2.3	8.0	100	401
Female	46.6	40.6	4.9	0.6	7.4	100	404
Age							
6-11 months	82.3	3.3	0.8	0	13.6	100	67
12-23 months	64.3	29.3	2.1	0	4.2	100	208
24-35 months	44.2	44.4	4.2	2.9	4.3	100	208
36-47 months	35.8	45.9	6.9	0.9	10.5	100	148
48-59 months	40.7	47.0	4	2.8	5.6	100	159
Mother's education							
None	35.6	30.3	12.6	9.5	12.1	100	95
Primary	50.4	37.8	3	0.6	8.2	100	485
Secondary +	55.6	38.2	1.6	0	4.6	100	225
Wealth index							
Low	51.5	32.3	3.2	3.8	9.2	100	158
Medium	47.3	39.5	4.5	1.4	7.3	100	379
High	53.2	36.2	3	0.2	7.3	100	268
Total	**50.1**	**37**	**3.7**	**1.5**	**7.7**	**100**	**806**

On the other hand, 64 per cent of women within the reproductive ages who had live births within the two years preceding the survey reported that they received the vitamin A supplement as shown in table 5.7 below. The results show that women from wealthier households are more likely to receive the recommended vitamin A supplementation during the first eight months of birth than mothers from poorer households. This is reflected by the low proportion receiving vitamin A

supplementation at 49 per cent for those from low wealth index households compared to close to 70 per cent among those from the high wealth index households.

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, MICS Meru South district, 2008

Characteristics	Received vitamin A supplement*	Not sure if received vitamin A	Number of women aged 15-49 years
Education			
None	(65)	(0.0)	17
Primary	59.3	0.0	168
Secondary +	74.3	0.0	66
Wealth index			
Low	48.8	0.0	55
Medium	65.9	0.0	111
High	69.9	0.0	86
Total	**63.5**	**0.0**	**252**

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.
(): Based on25-50 un-weighted cases,

* MICS indicator 43

5.5 Low Birth Weight

Weight at birth is a good indicator not only for a mother's health and nutritional status but also 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 survived had impaired immune function and increased risk of disease; they were likely to remain undernourished, with reduced muscle strength, throughout their lives, and suffer a higher incidence of diabetes and heart disease in later life. Children born underweight also tend to have a lower IQ and cognitive disabilities, affecting their performance in school and rare job opportunities as adults.

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

In the industrialized world, cigarette smoking during pregnancy is the leading cause of low birth weight. In developed and developing countries alike, teenagers who give birth when their own bodies have yet to finish growing run the risk of bearing underweight babies. One of the major challenges in measuring the incidence of low birth weight is the fact that more than half of infants in the developing world are not weighed. In the past, most estimates of low birth weight for developing countries were based on data compiled from health facilities. However, these estimates are biased for most developing countries because the majority of newborns are not delivered in facilities, and those who are, represent only a selected sample of all births. Because many infants are not weighed at birth and those who are weighed may be a biased sample of all births, the reported birth weights usually cannot be used to estimate the prevalence of low birth weight among all children. Therefore, the percentage of births weighing below 2500 grams is estimated from two items in the questionnaire: the mother's assessment of the child's size at birth (i.e., very small, smaller than average, average, larger than average, very large) and the mother's recall of the child's weight or the weight as recorded on a health card if the child was weighed at birth[4].

Approximately 97 per cent of births are weighed at birth in Meru South district of which about eight per cent are estimated to weigh less than 2500 grams as depicted in Table 5.8 and figure 5.3. The weight at birth seems not to vary with differences in socio-economic status.

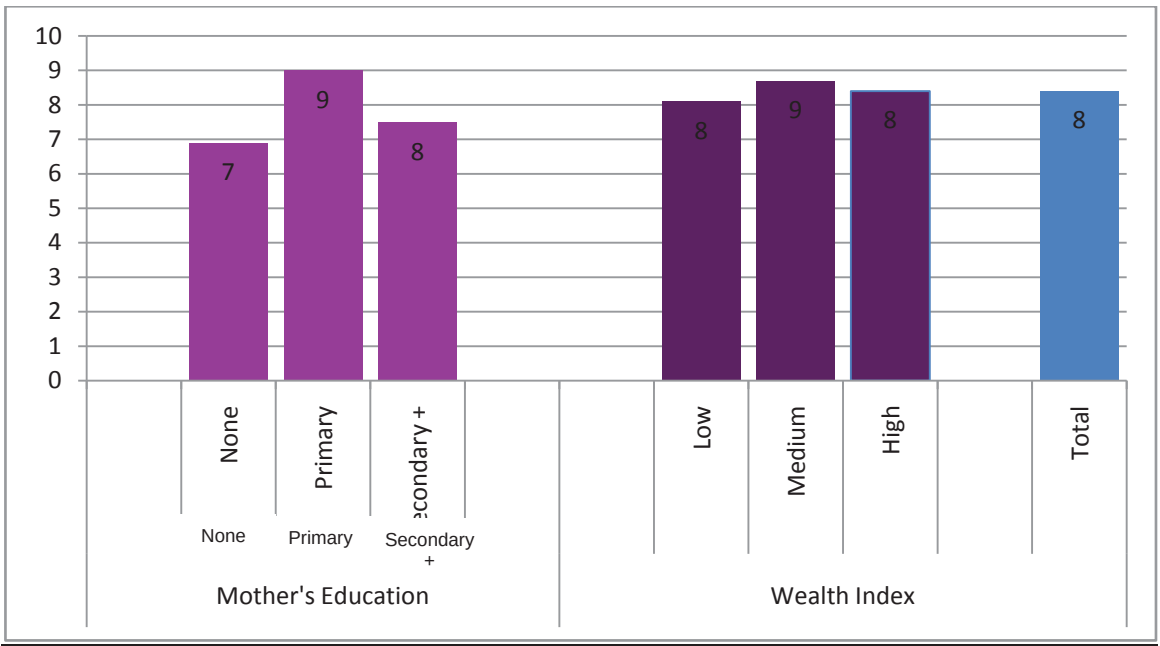
Table 5.8 (NU.8): Low birth weight infants

Percentage of live births in the 2 years preceding the survey that weighed below 2500 grams at birth, MICS Meru South District, 2008

	Percentage of live births:		
Characteristics	Below 2500 grams	Weighed at birth	Number of live births
Mother's education			
None	(6.9)	(97.4)	17
Primary	9.0	96.0	168
Secondary +	7.5	100	66
Wealth index			
Low	8.1	94.8	55
Medium	8.7	96.9	111
High	8.4	97.8	86
Total	**8.4**	**96.7**	**252**

(): Based on 25-50 un-weighted cases

Figure 5.3: Percentage of infants weighing less than 2,500 grams at birth, Meru South, 2008



5.6 Food Relief

Table 5.9 (NU.9) shows 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 in Meru South District. As expected, proportion of households registering for food relief reduces with increase with wealth index. Nine out of ten households registered for food distribution received the last food after 6 months prior to the survey.

Table 5.9 (NU.9): 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, MICS Meru South District, 2008

Characteristic	Percentage households registered as beneficiary of food distribution	Total number of house-holds	Percentage of households by time last receipt of food distribution				Percentage of households reporting supply meeting all their food needs	Number of households registered as beneficiary of food distribution
			Between 1-3 months	Between 4-6 months	After 6 months	Total percent age		
Wealth index								
Low	5.9	204	(*)	(*)	(*)	(*)	(*)	12
Medium	1.7	489	(*)	(*)	(*)	(*)	(*)	8
High	1.5	449	(*)	(*)	(*)	(*)	(*)	7
Total	**2.4**	**1,142**	**(1.9)**	**(8.3)**	**(89.9)**	**(100.0)**	**(1.0)**	**27**

(*): Based on less than 25 un-weighted cases, hence not shown
(): Based on25-50 un-weighted cases

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. Immunizations have saved the lives of millions of children in the three decades since the launch of the Expanded Programme on Immunization (EPI) in 1974.Worldwide there are still 27 million children overlooked by routine immunization and as a result, vaccine-preventable diseases cause more than 2 million deaths every year.

A World Fit for Children goal is to ensure full immunization of children below 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 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 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 by the age of 12 months. The measles vaccine should be administered by the age of 9 months. This is in accordance with the UNICEF and WHO guidelines.

In MICS, mothers or care givers of children below five years of age were asked to provide vaccination cards and interviewers copied vaccination information from the cards 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 card as well as re-call, unless mentioned otherwise.

If the child did not have a card, the mother was asked to recall whether or not the child had received each of the vaccinations and, for DPT and Polio, how many times. The percentage of children aged between 12 to 23 months who received each of the vaccinations is shown in Table 6.1 (CH.1). The denominator for the table is comprised of children aged between 12-23 months so that only children who are old enough to be fully vaccinated are considered. In the top panel, the numerator includes all children who were vaccinated at any time before the survey according to the vaccination card or the mother's report. In the bottom panel, only those who were vaccinated before their first birthday, as recommended, are included. For children without vaccination cards, the proportion of vaccinations given before the first birthday was assumed to be the same as for children with vaccination cards.

The results of the survey show that Meru South district has met the required World Fit for Children goal of full immunization. As shown in table 6.1 and figure 6.1, approximately 83 per cent of children aged between 12 – 23 months were vaccinated by 12 months of age. This fact was confirmed by the availability of vaccination card for over 80 per cent of the children. Over 97 per cent of the children received the required 3 doses of DPT vaccines while 90 per cent received all the 3 required polio vaccines. A high proportion (93 per cent) received the measles vaccine.

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, MICS Meru South District, 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	DPT 3 **	Polio 0	Polio 1	Polio 2	Polio 3 ****	Measles ****	All *****	None	
According to:												
Vaccination card	86.9	86.9	86.3	85.6	86.6	86.9	86.3	85.6	80.9	80.6	0	208
Mother's report	12.8	12.4	12.9	11.8	12.5	12.5	12.2	4.4	12.9	4.1	0.4	208
Either	99.6	99.2	99.2	97.4	99.1	99.4	98.5	90	93.8	84.7	0.4	208
Vaccinated by 12 months of age	99.6	98.3	99.2	97.4	99.1	99.4	98.5	89.6	93.3	83.3	0.4	208

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.

*Children who received 'all' vaccinations are those who have received 3 doses of DPT, 3 doses of Polio (excluding Polio 0), BCG, and Measles.

* MICS Indicator 25
** MICS Indicator 26
*** MICS Indicator 27
**** MICS Indicator 28 ; MDG Indicator 15
***** MICS Indicator 31

Figure 6.1: Percentage of children aged 12-23 months who received the recommended vaccinations by 12 months, Meru South, 2008

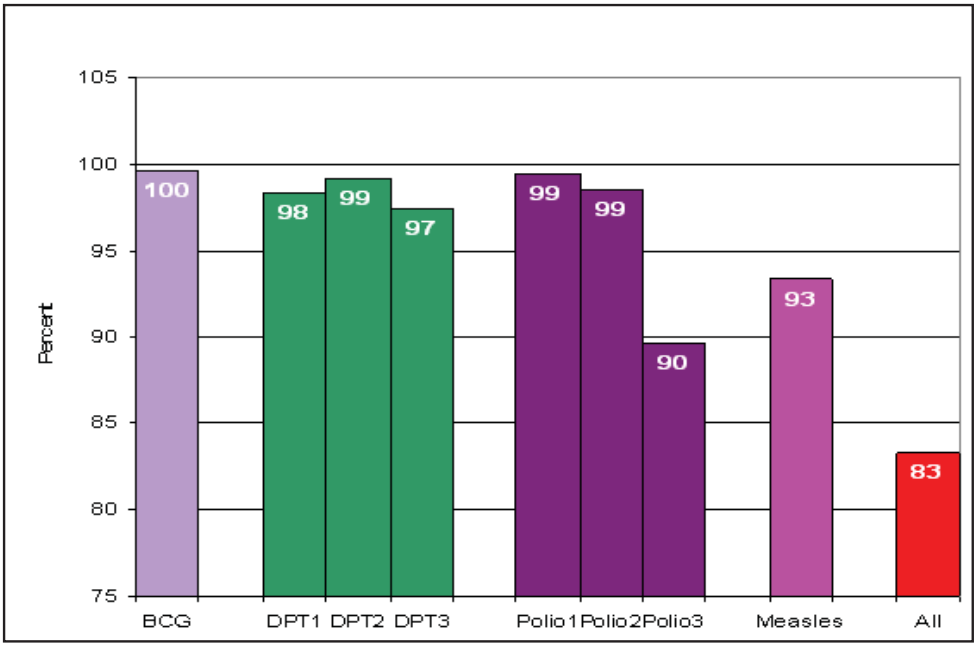


Table 6.2 (CH.2) shows the distribution of vaccination coverage rates among children aged between 12-23 months. The results show that there is no much difference in vaccination coverage by gender however mothers' education is an important factor in making sure the children are vaccinated. In all the required vaccinations children whose mothers had no education had a low vaccination rate, with measles being the most affected with 80 per cent as compared to over 84 per cent coverage for those with at least primary level of education. Overall, majority (87 per cent) of the children had a health card.

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

Percentage of children aged 12-23 months currently vaccinated against childhood diseases, MICS Meru South District, 2008

characteristics	Percentage of children who received vaccinations:											Percentage with health card	Number of children aged 12-23 months
	BCG	DPT1	DPT2	DPT3	Polio0	Polio1	Polio2	Polio3	Mea-sles	All	None		
Sex													
Male	99.3	99.3	99.3	99.3	99.3	99.3	99.3	92.8	92.5	86.0	0.7	89.4	101
Female	100.0	99.2	99.2	95.7	98.9	99.5	97.7	87.3	95.0	83.4	0.0	84.5	107
Mother's education													
None	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	13
Primary	100.0	100.0	100.0	99.2	100.0	100.0	98.6	92.3	91.9	85.0	0.0	87.6	137
Secondary +	100.0	98.6	98.6	96.0	98.0	99.0	99.0	86.8	98.0	84.8	0.0	84.8	58
Wealth index													
Low	(98.4)	(98.4)	(98.4)	(96.0)	(98.4)	(98.4)	(98.4)	(90.4)	(90.5)	(82.5)	(1.6)	(89.5)	46
Medium	100.0	100.0	100.0	98.7	100.0	100.0	98.7	90.5	92.7	84.6	0.0	87.5	85
High	100.0	98.9	98.9	97.0	98.5	99.3	98.3	89.1	97.0	86.1	0.0	84.6	78
Total	**99.6**	**99.2**	**99.2**	**97.4**	**99.1**	**99.4**	**98.5**	**90.0**	**93.8**	**84.7**	**0.4**	**86.9**	**208**

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.

(*): Based on less than 25 un-weighted cases, hence not shown.
(): Based on l 25-50 un-weighted cases

6.2 Tetanus Toxoid

One of the MDGs is to reduce by three quarters the maternal mortality ratio, with one strategy to eliminate maternal tetanus. In addition, another goal is to reduce the incidence of neonatal tetanus to less than 1 case of neonatal tetanus per 1,000 live births in every district. A World Fit for Children goal is to eliminate maternal and neonatal tetanus by 2005.

Prevention of maternal and neonatal tetanus is to ensure 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 the pregnancy, they (and their newborn) are also considered to be protected if the following conditions are met:

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

Table 6.3 summarizes the results for neonatal tetanus protection status for mothers who had a birth within the 24 months preceding the survey in Meru South district. Approximately 89 per cent of mothers are protected. A further look at the mother's age groups shows that mothers aged between 35-49 years had the highest proportion (93 per cent) while the least were those aged between15-19 years (78 per cent). The more educated the mothers, the higher the probability of being protected against tetanus as shown by 79, 87 and 92 per cent for those with no education, primary education and secondary (or higher), respectively.

A similar trend is exhibited by wealth status where mothers from high wealth index households had the highest proportion (92 per cent) compared to 86 per cent for those from low wealth index households.

Overall, 78 per cent of the mothers who had a birth within the 24 months preceding the survey had received the required (at least 2) doses of tetanus toxoid injections.

Table 6.3 (CH.3): Neonatal tetanus protection

Percentage of mothers with a birth in the last 24 months protected against neonatal tetanus, MICS Meru South District, 2008

Characteristics	Percentage of mothers with a birth in the last 12 months who: Received at least 2 doses during last pregnancy	Received at least 2 doses, the last within 3 years	Received at least 3 doses, last 5 years	Received at least 4 doses, last 10 years	Received at least 5 doses during lifetime	Protected against tetanus*	Number of mothers
Age							
15-19	(71.6)	(5.9)	(0.0)	(0.0)	(0.0)	(77.5)	13
20-24	80.4	5.4	0.0	0.0	0.0	85.9	65
25-29	83.1	7.5	0.0	0.0	0.0	90.7	72
30-34	70.4	17.6	0.9	0.0	0.0	88.9	52
35-49	77.1	15.7	0.0	0.0	0.0	92.8	49
Education							
None	(72.2)	(6.6)	(0.0)	(0.0)	(0.0)	(78.8)	17
Primary	76.9	11.4	0.3	0.0	0.0	88.6	168
Secondary +	82.2	9.6	0.0	0.0	0.0	91.8	66
Wealth index							
Low	74.9	10.8	0.0	0.0	0.0	85.7	55
Medium	74.9	12.7	0.4	0.0	0.0	88.0	111
High	84.0	7.7	0.0	0.0	0.0	91.7	86
Total	**78.0**	**10.6**	**0.2**	**0.0**	**0.0**	**88.8**	**252**

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.

* MICS Indicator 32
(): Based on l 25-50 un-weighted 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 from loss of large quantities of water and electrolytes from the body in liquid stools. Management of diarrhoea – either through oral Rehydration salts (ORS) or a Recommended Home Fluid (RHF) - can prevent many of these deaths. Preventing dehydration and malnutrition by increasing fluid intake and continuing to feed the child are also important strategies for managing diarrhoea.

The goals are to;

(1) reduce by one half death due to diarrhoea among children under five by 2010 compared to 2000 (A World Fit for Children); and
(2) reduce by two thirds the mortality rate among children under five by 2015 compared to 1990 (Millennium Development Goals).

In addition, the World Fit for Children calls for a reduction in the incidence of diarrhoea by 25 per cent.

The indicators are:

- Prevalence of diarrhoea
- Oral Rehydration therapy (ORT)
- Home management of diarrhoea
- Oral Rehydration Treatment 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. If so, the mother was asked a series of questions about what the child had to drink and eat during the episode and whether this was more or less than the child usually ate and drank.

The Oral Rehydration treatment for the children aged less than five years with diarrhoea in the last two weeks preceding the survey is presented in table 6.4. One in ten children (10 per cent) had diarrhoea in the last two weeks preceding the survey of whom 21 per cent, 17 per cent, and one per cent had fluid from ORS packet, recommended homemade fluid, and pre-packaged ORS fluid, respectively. Overall, over a third (34 per cent) of children in Meru South District use ORT for diarrhoea while the rest do not receive any treatment. A look at the distribution according to wealth quintiles shows that the children in lowest quintile had the highest proportion (13 per cent) with diarrhoea.

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), MICS Meru South District, 2008

Characteristics	Had diarrhoea in last two weeks	Number of children aged 0-59 months	Children with diarrhoea who received: Fluid from ORS packet	Recommended homemade fluid	Pre-packaged ORS fluid	No treatment	ORT Use Rate	Number of children aged 0-59 months with diarrhoea
Sex								
Male	9.5	455	(19.8)	(17.8)	(0.0)	(65.9)	(34.1)	43
Female	10.5	461	(22.6)	(15.4)	(2.2)	(66.2)	(33.8)	48
Age								
<6 months	8.3	126	(*)	(*)	(*)	(*)	(*)	9
6-11 months	17.3	67	(*)	(*)	(*)	(*)	(*)	13
12-23 months	13.5	208	(29.1)	(22.5)	(3.7)	(55.6)	(44.4)	28
24-35 months	8.5	208	26.7	18.0	0.0	60.8	39.2	18
36-47 months	11.0	148	(*)	(*)	(*)	(*)	(*)	16
48-59 months	4.3	159	(*)	(*)	(*)	(*)	(*)	7
Mother's education								
None	16.8	99	(*)	(*)	(*)	(*)	(*)	17
Primary	9.8	559	17.8	20.6	0.9	64.6	35.4	55
Secondary +	7.7	258	(*)	(*)	(*)	(*)	(*)	20
Wealth index								
Low	12.6	175	(*)	(*)	(*)	(*)	(*)	22
Medium	9.8	440	(15.7)	(16.1)	(1.2)	(70.9)	(29.1)	43
High	8.7	300	(24.3)	(12.4)	(2.0)	(70.4)	(29.6)	26
Total	**10.0**	**916**	**21.3**	**16.5**	**1.1**	**66.1**	**33.9**	**91**

Note: The percentages 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.

(*): Based on less than 25 un-weighted cases, hence not shown.
(): Based on l 25-50 un-weighted cases

Table 6.5 (CH.5) presents the home management of diarrhoea for children with diarrhoea within the two weeks preceding the survey in Meru South district. A total of 11 per cent practised home management of diarrhoea, with nearly half mentioning (51 per cent) drank more fluids, drank the same or less (49 per cent), nearly one third (31 per cent) ate somewhat less, same or more and over two thirds (69 per cent) ate much less or none. In total, close to one in five (19 per cent) children received ORT or increased fluids and continued feeding. Differentials according to gender show that a high proportion of males (23 per cent) received home management of diarrhoea compared to females. Variations in age brackets shows that a high proportion (80 per cent) of older children (those age 48-59 months) received ORT or increased fluids and continued feeding compared to other age brackets that had less than 30 per cent.

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

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, MICS Meru South District, 2008

Characteristics	Had diarrhoea in last two weeks	Number of children aged 0-59 months	Percentage Children with diarrhoea who:				Home management of diarrhea	Received ORT or increased fluids AND continued feeding	Number of children aged 0-59 months with diarrhoea
			Drank more	Drank the same or less	Ate somewhat less, same or more	Ate much less or none			
Sex									
Male	9.5	455	65.6	34.4	37.1	62.9	21.9	24.5	43
Female	10.5	461	38.7	61.3	26.4	73.6	1.8	14.8	48
Age									
0-11 months	10.0	193	(*)	(*)	(*)	(*)	(*)	(*)	22
12-23 months	14.6	208	(39.4)	(60.6)	(30.7)	(74.1)	(3.0)	(11.0)	28
24-35 months	9.0	208	(*)	(*)	(*)	(*)	(*)	(*)	18
36-47 months	11.2	148	(*)	(*)	(*)	(*)	(*)	(*)	16
48-59 months	4.5	158	(*)	(*)	(*)	(*)	(*)	(*)	7
Mother's education									
None	16.8	99	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Primary	9.8	559	50.6	49.4	33.4	66.6	13.5	21.7	55
Secondary +	7.7	258	(*)	(*)	(*)	(*)	(*)	(*)	20
Wealth index									
Low	12.6	175	(*)	(*)	(*)	(*)	(*)	(*)	22
Medium	9.8	440	(40.9)	(59.1)	(22.3)	(77.7)	(4.0)	(13.0)	43
High	8.7	300	(73.8)	(26.2)	(41.6)	(58.4)	(28.6)	(34.2)	26
Total	**10.0**	**916**	**51.4**	**48.6**	**31.4**	**68.6**	**11.3**	**19.4**	**91**

(*): Based on less than 25 un-weighted cases, hence not shown.
(): Based on l 25-50 un-weighted cases

6.4 Care Seeking and Antibiotic Treatment of Pneumonia

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

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

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

The prevalence of suspected pneumonia in children aged less than 5 years within the two weeks preceding the survey is presented in table 6.6 (CH.6). Approximately 9 per cent of the children in Meru South had acute respiratory infection which could mean cases of suspected pneumonia. Among those who had suspected pneumonia, 81per cent sought treatment from any appropriate health provider. The choice of health provider for most of the children was public facility as over 60 per cent of children were taken there compared to just around 19 per cent taken to private facilities. Among the public facilities, government health centres handled highest proportion (31 per cent) of children followed by government hospital (20 per cent) and government health post (11 per cent).The private health facilities had 16 per cent of children going for private hospital clinics, five per cent consulting private physicians and negligible per cent going for pharmacies. Children who belong to households of higher wealth category are more likely to receive care from an appropriate health service provider compared with children who belong to low wealth category as shown by 86 per cent for higher wealth index as compared to 79 per cent for the middle wealth index category.

6.6 (CH.6) Care seeking for suspected pneumonia

Percentage of children aged 0-59 months in the last two weeks taken to a health provider, 2008

			Public source(facility)						Private sources (facility)					Other source(facilities)					
Characteristics	Had acute respiratory infection	Number of children aged 0-59 months	Govt. hospital	Govt. health centre	Govt. health post	Village health worker	Mobile/ outreach clinic	Other public	Private hospital clinic	Private phys-ician	Pharm-acy	Mobile clinic	Other private medical	Relative or friend	Shop	Tradi-tional practi-tioner	Other	Any appro-priate provider *	Number of children aged 0-59 months with suspected pneumonia
Sex																			
Male	10.0	455	21.0	32.0	7.8	0.0	0.0	0.0	23.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	83.8	45
Female	7.6	461	17.7	29.4	14.7	0.0	0.0	0.0	7.5	7.5	2.4	0.0	0.0	0.0	0.0	0.0	0 .0	76.8	35
Age (Months)																			
0-11	8.0	178	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	14
12-23	8.6	204	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	18
24-35	10.2	214	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	22
36-47	6.7	153	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	10
48-59	9.7	167	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	16
Mother's education																			
None	9.3	99	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	9
Primary	10.3	559	(18.1)	(30.3)	(9.3)	(0.0)	(0.0)	(0.0)	(16.9)	(4.7)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	77.9	58
Secondary+	5.2	258	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	13
Wealth index																			
Lowest	9.0	175	*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	16
Middle	8.8	440	18.1	33.9	12.5	.0	.0	.0	7.9	9.0	.0	.0	.0	.0	.0	.0	.0	79.2	39
Upper	8.6	300	(22.8)	(20.1)	(14.8)	(0.0)	(0.0)	(0.0)	(28.3)	(0.0)	(3.2)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(85.9)	26
Total	**8.8**	**916**	**19.5**	**30.9**	**10.8**	**0.0**	**0.0**	**0.0**	**16.3**	**4.4**	**1.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0 0.0**	**80.8**	**80**

* Includes village health worker or mobile/outreach clinic.

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

(*): Based on less than 25 un-weighted cases, hence not shown.
( ):Based on un-weighted cases 25-50 cases hence not shown

Table 6.7 (CH.7) presents the percentage of children suspected of pneumonia who received antibiotics treatment. Slightly over one third (35 per cent) of females received antibiotics compared to slightly over a quarter (27 per cent) of their male counterpart. Approximately 23 per cent of children whose mothers had primary level of education received antibiotic treatment. A total of 31 per cent of children received the antibiotics against pneumonia.

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

Percentage of children aged 0-59 months with suspected pneumonia who received antibiotic treatment, MICS Meru South District, 2008

Characteristics	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	27.1	45
Female	35.2	35
Age		
0-11 months	(*)	14
12-23 months	(*)	18
24-35 months	(*)	22
36-47 months	(*)	10
48-59 months	(*)	16
Mother's education		
None	(*)	9
Primary	22.8	58
Secondary +	(*)	13
Wealth index		
Low	(*)	16
Medium	24.3	39
High	(32.0)	26
Total	**30.6**	**80**

* MICS indicator 22
(*): Based on25un-weighted cases, hence not shown

Knowledge of the danger symptoms of pneumonia among the mothers or caretakers of the children is important since it prompts for urgent action in seeking medical care. Table 6.8 (CH.7A) presents the Knowledge of Signs of Pneumonia by mothers or caretakers of children. The two danger signs of pneumonia are fast and difficult breathing which prompts for taking a child to a health facility immediately. It is surprising that households in lowest wealth index and mothers without any education were the ones who were twice more likely to recognize the two danger signs compared to other categories. One of the danger signs (fast breathing) had 18 per cent of mothers/caretakers mentioning it while the other (difficult breathing) had 21 per cent. Overall, 78 per cent noted that a child should be taken to a health facility if he/she develops a fever.

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 percentage of mothers/caretakers who recognize fast and difficult breathing as signs for seeking care immediately, MICS Meru South District, 2008

Characteristics	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 difficulty breathing	Has blood in stool	Is drinking poorly	Has other symptoms		
Mother's education										
None	19.5	53.8	75.4	16.7	15.5	18.1	17.1	26.4	3.4	99
Primary	29.3	47.7	77.0	19.3	22.2	11.8	14.7	20.5	1.8	559
Secondary +	26.6	48.6	81.9	14.9	22.3	11.7	19.3	30.0	1.9	258
Wealth index										
Low	29.7	54.0	82.9	16.6	17.8	21.1	15.4	21.5	4.0	175
Medium	28.0	47.0	76.8	17.8	21.8	11.5	18.1	24.8	1.4	440
High	25.3	48.0	77.5	18.5	23.1	8.7	14.1	23.9	1.7	300
Total	**27.5**	**48.6**	**78.2**	**17.8**	**21.4**	**12.4**	**16.2**	**23.9**	**2.0**	**916**

* Percentage of mothers/caretakers who state fast and difficult breathing as signs for taking a child to a health facility immediately
Note: The percentages will not add to 100 since some mothers/caretakers may have indicated more than one symptom.

6.5 Solid Fuel Use

More than 3 billion people around the world rely on solid fuels (biomass and coal) for their basic energy needs, including cooking and heating. Cooking and heating with solid fuels leads to high levels of indoor smoke, a complex mix of health-damaging pollutants. The main problem with the use of solid fuels is products of incomplete combustion, including carbon monoxide (CO), polyaromatic hydrocarbons, sulphur dioxide (SO2), 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.

It is clear from table 6.9 (CH.8) that nearly all (97 per cent) of households use solid fuel for cooking. Among the solid cooking fuels, wood is used by over nine out of ten (91 per cent) households while the rest of solid cooking fuel accounted for less than 10 per cent. Differentials according to wealth index shows that all lower wealth index households use solid fuel for cooking which is similar to middle and high wealth index households (100 per cent), respectively. The use of solid fuel is slightly lower in households with less educated head of household (94 per cent) as compared to those with secondary and above education (98 per cent).

Table 6.9 (CH.8): Solid fuel use

Percentage distribution of households according to type of cooking fuel, and percentage of households using solid fuels for cooking, MICS Meru South, 2008

	Percentage of households using:										
Characteristics	Electricity	Liquid propane gas (LPG)	Natural gas	Biogas	Kerosene	Charcoal	Wood	Other	Total	Solid fuels for cooking *	Number of house-holds
Education of household head											
None	0.8	1.0	1.0	0.0	1.8	3.3	91.1	1.0	100.0	94.4	248
Primary	0.0	0.0	0.0	0.3	1.8	5.2	92.6	0.1	100.0	97.9	642
Secondary+	0.0	0.1	0.1	0.0	1.8	13.8	84.2	0.0	100.0	98.0	247
Wealth index											
Lowest	0.0	0.0	0.0	0.0	0.0	0.0	100	0.0	100.0	100.0	204
Medium	0.0	0.0	0.0	0.4	0.0	1.2	98.3	0.0	100.0	100.0	489
Upper	0.5	0.6	0.6	0.0	4.5	15.5	77.7	0.6	100.0	100.0	449
Total	**0.2**	**0.2**	**0.2**	**0.2**	**1.8**	**6.6**	**90.5**	**0.3**	**100**	**97.1**	**1142**

6.6 Malaria

Malaria is one of the leading causes of death of children under age five in Meru South District. It also contributes to anaemia in children and is a common cause of school absenteeism. Preventive measures, especially the use of mosquito nets treated with insecticide (ITNs), can dramatically reduce malaria mortality rates among children. In 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. 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 while younger children 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 for malaria.

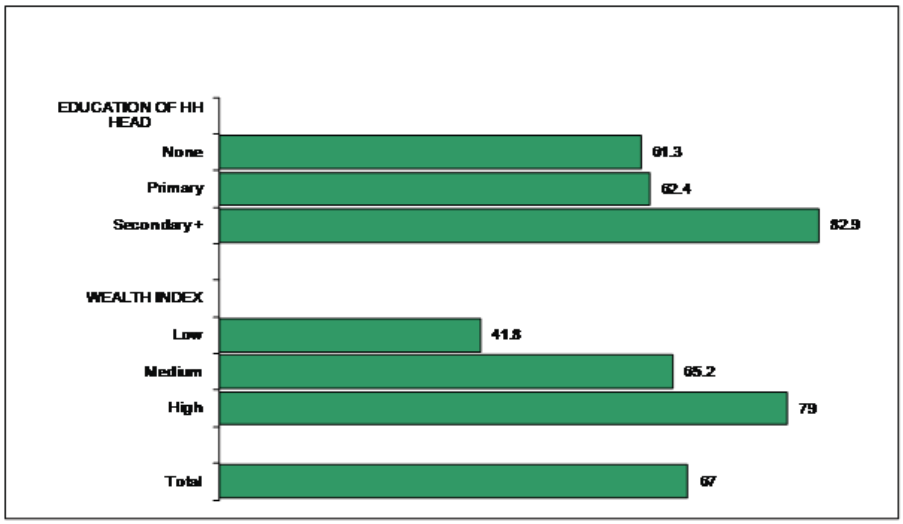
As shown in table 6.10 (CH.10), sixty-seven per cent of households have at least one ITN. The likelihood of possessing at least an ITN increases with wealth category as shown by 79 per cent, 65 per cent and 42 per cent in high, medium and low wealth index, respectively. Possession of at least one mosquito net increases with education level of household head and wealth category. Graphical presentation of ownership of an ITN is presented in figure 6.2.

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

Percentage of households with at least one insecticide treated net (ITN), MICS Meru South District, 2008

Characteristics	Percentage of households with at least one mosquito net	Two or more mosquito nets	at least one insecticide treated net (ITN)*	Number of households
Education of household head				
None	61.3	34.5	61.3	247
Primary	62.5	33.3	62.4	628
Secondary +	82.9	52.9	82.9	261
Wealth index				
Low	41.8	14.1	41.8	193
Medium	65.3	35.1	65.2	471
High	79.0	51.4	79.0	478
Total	**67.1**	**38.3**	**67.0**	**1,142**

Figure 6.2: Percentage of households with at least one treated mosquito net, Meru South, 2008



The distribution of children sleeping under mosquito bed nets are presented in table 6.11 (CH.11). Over two thirds (69 per cent) of children aged between 0-59 months slept under a bed net in the night before the survey with the same proportion sleeping under an ITN. Differentials by age shows that young children tend to sleep under a bed net than the older ones as shown by 74 per cent and 65 per cent for 0-11 months and 48-59 months, respectively. The household wealth category influences the chances of a child sleeping under a bed net as shown by 43 per cent for children from the lowest wealth index households versus 83 per cent for children from highest wealth index.

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, MICS Meru South District, 2008

Characteristics	Percentage of children who: Slept under a bender *	Sleep 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	69.8	69.8	0.0	0.0	0.0	30.2	455
Female	68.8	68.6	0.2	0.0	0.1	31.1	461
Age							
0-11 months	73.6	73.6	0.0	0.0	0.0	26.4	178
12-23 months	72.8	72.4	0.5	0.0	0.0	27.0	204
24-35 months	68.1	68.1	0.0	0.0	0.0	31.9	214
36-47 months	66.1	66.5	0.0	0.0	0.4	33.5	153
48-59 months	65.1	65.1	0.0	0.0	0.0	34.9	167
Wealth index							
Low	42.8	42.8	0.0	0.0	0.0	57.2	175
Medium	70.9	70.7	0.2	0.0	0.1	29.0	440
High	82.5	82.5	0.0	0.0	0.0	17.5	300
Total	**69.3**	**69.2**	**0.1**	**0.0**	**0.1**	**30.6**	**916**

* MICS Indicator 38 ** MICS Indicator 37

Table 6.12 shows percentage of children aged between 0-59 months who were ill with fever in the last two weeks preceding the survey and received an anti-malarial drug. A total of 21 per cent of children; 19 per cent males and 23 per cent females had fever within the two weeks preceding the survey. Fever prevalence was higher at the age bracket of 12-23 months compared to the other categories. Government policy recommends that all fevers in children below five years of age should presumptively be treated as malaria with Artemisinin based Combinations therapy (ACT), which is provided free of charge at government and mission facilities. Unfortunately, only 32 per cent used ACT. Other non- malarial medicines were widely used for treatment of fever. These medications include aspirin (64 per cent) and ibuprofen (51 per cent).Overall, only 20 per cent of children with fever in the last two weeks preceding the survey were treated with an “appropriate” anti-malarial drug and 17 per cent received the drugs within 24 hours of onset of symptoms. “Appropriate” anti-malarial drugs include chloroquine, SP/Fansidar, ACT, etc. Children who belong to households in high wealth index are more likely to receive an appropriate anti-malarial drug within 24 hours of onset of symptoms. This is shown by 7, 16 and 25 per cent for low, medium and high wealth index households, respectively. A big disparity in treating children with appropriate anti-malarial drug within the required time is observed by gender as more than a quarter (26 per cent) males were treated appropriately compared to 9 per cent for females.

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, MICS Meru South District, 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: Anti-malarias: SP/Fansidar	Anti-malarias: Chloro-quine	Anti-malarials-Armod-iaquine	Anti-malarials-Quinine	Anti-malarials: Artemisnin based combinations	Anti-malarials: Other Anti-malarial	Any appropriate anti-malarial drug	Other medications: Other medications: Paracetamol/ Panadol/Acet-aminophan	Other medications: Aspirin	Other medications: Ibuprofen	Other medications: 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	19.4	455	9.4	1.0	9.4	1.0	22.2	11.9	20.1	1.9	60.6	59.1	2.0	1.0	25.7	88
Female	22.7	461	6.2	0.6	6.2	0.6	40.7	5.2	20.1	0.0	67.2	44.8	0.0	10.5	8.9	104
Age (months)																
0-11	14.2	178	(7.0)	(0.0)	(9.3)	(0.0)	(24.3)	(4.8)	(11.4)	(6.6)	(47.2)	(55.8)	(3.9)	(4.7)	(12.6)	31
12-23	28.0	204	5.7	1.5	3.7	1.5	36.4	0.9	20.8	0.0	63	46.4	0.9	0.0	22.4	57
24-35	19.0	214	0.0	0.0	0.0	0.0	(39.2)	(9.9)	(30.8)	(0.0)	(72.6)	(35.8)	(0.0)	(0.0)	(21.6)	36
36-47	21.5	153	(17.7)	(1.9)	(17.1)	(1.8)	(19.60	(18.8)	(11.8)	(0.0)	(59.5)	(39.6)	(0.0)	(30.3)	(7.5)	34
48-59	21.9	167	(10.5)	(0.0)	(11.6)	(0.0)	(35.0)	(11.0)	(20.8)	(0.0)	(79.2)	(83.8)	(0.0)	(0.0)	(14.5)	33
Mother's education																
None	28.8	99	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	28
Primary	22.1	559	5.7	1.2	5.7	1.2	34.7	11.4	25.3	0.7	70.9	52.5	0.4	5.0	20.2	123
Secondary +	15.9	258	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	41
Wealth index																
Low	26.1	175	(23.9)	(1.8)	(23.9)	(1.8)	(9.0)	(11.9)	(17.7)	(0.0)	(54.1)	(47.8)	(0.0)	(12.1)	(6.8	46
Medium	19.4	440	2.4	0.7	2.4	0.7	36.2	9.4	23.7	2.0	68.4	55.3	0.0	7.3	15.5	85
High	20.5	300	2.9	0.0	2.9	0.0	44.0	4.0	16.9	0.0	65.9	48.6	2.8	0.0	25.4	61
Total	**21**	**916**	**7.7**	**0.8**	**7.7**	**0.8**	**32.2**	**8.3**	**20.1**	**0.9**	**64.2**	**51.4**	**0.9**	**6.1**	**16.6**	**193**

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

MICS indicator 39; MDG indicator 22

(*): Based on25un-weighted cases, hence not shown

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

Table 6.13 shows percentage of women aged between 15-49 years who gave birth during the two years preceding the survey and received IPT for malaria during pregnancy. Approximately 85 per cent received medicine to prevent malaria during pregnancy. The higher the level of education of the mother, the more likely she is to receive IPT for malaria during pregnancy. A similar trend is observed by wealth index categories i.e. 90 per cent of women from the high wealth index households received IPT for malaria during pregnancy compared to 78 per cent among those from the low wealth index households. Less than half (43 per cent) of mothers received full IPT while slightly over one third (35 per cent) took SP/Fansidar only one time.

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, MICS Meru South District, 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*	SP/Fansidar but number of times unknown	Chloroquine	Other medicines	Don't know	Number of women who gave birth in prior two years
Education								
None	(7.7)	(27.6)	(34.4)	(0.0)	(0.0)	(3.9)	(1.9)	17
Primary	83.9	32.0	45.5	0.0	3.2	4.3	1.7	168
Secondary +	90.7	46.0	38.0	0.0	0.9	4.8	2.8	66
Wealth index								
Low	78.3	23.5	50.1	0.0	6.1	4.2	1.9	55
Medium	83.9	40.6	37.8	0.0	2.0	3.2	1.9	111
High	89.6	35.9	44.7	0.0	0.5	6.1	2.3	86
Total	**84.6**	**35.3**	**42.8**	**0.0**	**2.4**	**4.4**	**2.0**	**252**

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 with harmful effects on human health. In addition to its association with disease, access to drinking water may be particularly important for women and children, especially in rural areas, who bear the primary responsibility for carrying water, often for long distances.

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

The lists of indicators used in MICS are as follows:

Water

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

Sanitation

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

The distribution of the population by source of drinking water for Meru South is shown in Table 7.1 and Figure 7.1. 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, and rainwater collection. Bottled water is considered as an improved water source only if the household is using an improved water source for other purposes, such as hand washing and cooking.

As shown in table 7.1, nearly half (52 per cent) of the population is using an improved source of drinking water in the district. A big variation is reported according to wealth categories as only a mere 10 per cent of the population inform the low wealth index households use drinking water from improved sources compared to 82 per cent for those from the high wealth index households. The major source of drinking water for households from the upper wealth index is piped into dwelling unit which accounts for over one third (35 per cent) of households as compared to 87 per cent of households from the low wealth index that mainly depend on surface water.

Among the improved sources, the most common source is piped water into the dwelling which accounts for 18 per cent. This is followed by piped water into yard or plot which accounts for 13 per cent and protected well at 12 per cent, respectively.

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

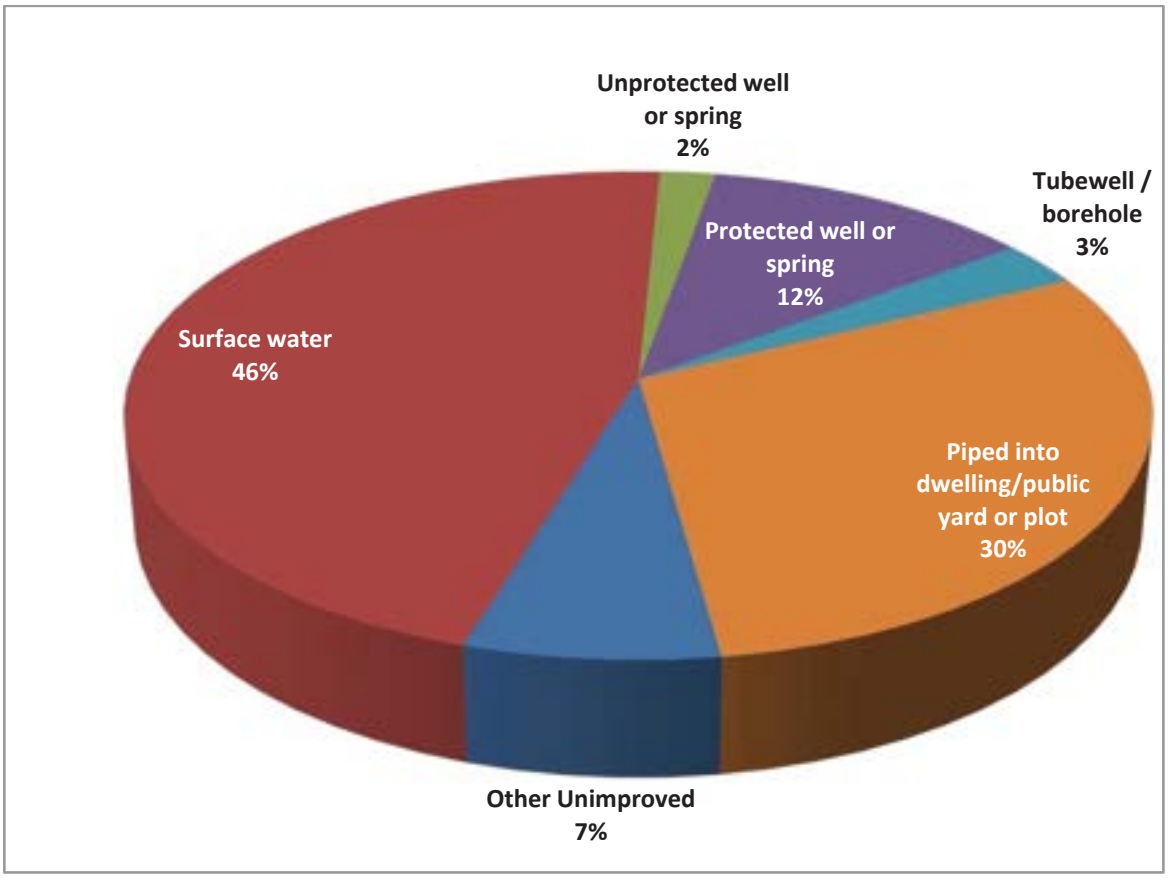
Percentage distribution of household population according to main source of drinking water and percentage of household population using improved drinking water sources, MICS Meru South District, 2008

	Main source of drinking water														
	Improved sources							Unimproved sources							
Characteristics	Piped into dwelling	Piped into yard or plot	Public tap/ Stand-pipe	Tube well/bore-hole with pump	Prot-ected well	Protec ted Spring	Bottled water	Piped water from neigh-bour	Tube well/ borehole with powered pump	Unprotected well	Unprotected Spring	Surface water	Total	Improved source of drinking water*	Number of house-hold members
Education of household head															
None	20.5	15.0	0.1	2.7	11.2	0.3	0.0	4.8	0.0	0.9	2.6	41.9	100.0	54.6	820
Primary	11.1	8.7	0.3	3.2	11.1	0.2	0.0	7.9	0.0	0.5	0.4	56.7	100.0	42.4	2544
Secondary +	31.0	20.5	0.0	3.0	14	0.3	1.0	3.1	0.4	1.7	0.6	24.5	100.0	73.2	1023
Wealth index															
Lowest	1.1	0.0	0.1	1.9	3.7	0.0	0.0	3.1	0.0	2.5	0.9	86.8	100.0	9.8	754
Middle	10.0	7.4	0.1	2.0	12.8	0.5	0.0	10.2	0.2	1.6	1.4	53.9	100.0	43.1	2024
Upper	34.6	24.7	0.3	4.9	14	0.1	0.6	2.5	0.0	0.2	0.1	17.9	100.0	81.8	1641
Total	**17.6**	**12.5**	**0.2**	**3.1**	**11.7**	**0.2**	**0.2**	**6.1**	**0.1**	**1.2**	**0.8**	**46.1**	**100.0**	**51.8**	**4420**

* MICS indicator 11; MDG indicator 30

On the other hand, the main sources of unimproved water is surface water with 46 per cent of the households relying on this source and piped water from the neighbour which accounts for 6 per cent of households.

Figure 7.1: Percentage distribution of household members by source of drinking water, Meru South, 2008



Use of in-house water treatment is presented in Table 7.2. Respondents were asked of ways they use to treat water at home to make it safe to drink. Approximately 58 per cent do not treat drinking water while 40 per cent use boiling method as the means for treating the water and adding bleach or chlorine (accounting for 2 per cent of the households).

In general, about 42 per cent of the households in the district use appropriate methods for treating drinking water. Appropriate water treatment method for improved drinking water sources is carried out by 52 per cent of the households compared to one third (33 per cent) of households for unimproved water sources.

Table 7.2 (EN.2): Household water treatment

Percentage distribution of household population according to drinking water treatment method used in the household, and percentage of household population that applied an appropriate water treatment method, MICS Meru South District, 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	Solar disinf-ection	Let it stand and settle	Other	Don't know	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	55.8	39.5	0.5	0.0	0.0	0.3	0.0	0.0	0.0	442	820	55.4	408	55.8	39.5
Primary	62.0	37.3	0.8	0.0	0.0	0.0	0.4	0.0	0.0	38.0	2544	50.6	880	31.3	1664
Secondary +	51.0	48.1	2.3	0.0	0.0	0.0	0.1	0.0	0.0	48.9	1023	51.0	718	43.8	309
Wealth index															
Lowest	71.9	28.1	0.0	0.0	0.0	0.0	1.4	0.0	0.0	28.1	754	62.8	51	25.6	704
Middle	63.5	36.4	0.1	0.0	0.0	0.0	0.1	0.0	0.0	36.4	2024	41.7	667	33.8	1357
Upper	45.5	50.1	5.7	0.0	0.0	0.1	0.0	0.0	0.0	54.5	1641	56.9	1301	45.3	341
Total	**58.3**	**40.1**	**2.2**	**0.0**	**0.0**	**0.1**	**0.3**	**0.0**	**0.0**	**41.7**	**4420**	**52.0**	**2018**	**33.0**	**2402**

(*) MICS indicator 13

Note that multiple response categories may be used and responses may total to more than 100 per cent.

Table 7.3 (EN.3) presents the amount of time it takes to obtain water from the main source. An average of 34 minutes is taken to obtain drinking water from its source. Note that these results refer to one roundtrip from home to drinking water source and excludes those households with water within the premises. Approximately 39 per cent of households have water within the premises while 11 per cent are able to get water within less than 15 minutes and 14 per cent take at least one hour. The differentials by household characteristics show that, less than one per cent of households in low wealth index have drinking water facility within their premises compared to 68 per cent of their counterparts from high wealth index households.

Table 7.3 (EN.3): Time to the 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, MICS Meru South District, 2008

	Time to the 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	Total	Mean time to source of drinking water (excluding those on premises)*	Number of households
Education of household head								
None	40.3	9.5	16.8	17.1	16.4	100.0	35.1	248
Primary	29.2	12.2	18.7	25.3	14.6	100.0	33.9	642
Secondary +	61.3	7.5	12.8	10.0	8.4	100.0	32.0	247
Non-standard curriculum	(*)	(*)	(*)	(*)	(*)	(*)	(*)	5
Wealth index								
Low	0.7	9.4	17.0	32.9	40.1	100.0	44.4	204
Medium	27.5	13.3	22.5	24.6	12.1	100.0	31.2	489
High	67.9	8.0	10.9	10.0	3.1	100.0	25.9	449
Total	**38.6**	**10.5**	**17.0**	**20.3**	**13.6**	**100.0**	**33.9**	**1142**

*The mean time to source of drinking water is calculated based on those households that do not have water on the premises.
(*) Based on less than 25 un-weighted cases.

Table 7.4 shows that an adult woman is usually the person collecting water from the main water source for the majority (54 per cent) of households. Others reported that an adult man is responsible for collecting water in 17 per cent of the households, while 10 per cent of households reported an adult (woman or man) being responsible. A child (male or female) from low wealth index households is likely to collect water than those from high wealth index households. Results by education status of the head of the household show that, over half of adult women collect water in households headed by people with primary or lower education compared to 36 per cent for those from households with a household head with at least secondary education level.

Table 7.4 (EN.4): Person collecting water

Percentage distribution of households according to the person collecting drinking water used in the household, MICS Meru South District, 2008

Characteristics	Person collecting drinking water*								
	Adult Woman	Adult Man	Female Child	Male Child	Adult Women and Child	Adult Male and Child	Adult Women and Male	DK	Number of households
Education of household head									
None	52.8	16.0	2.0	0.7	2.0	1.0	9.8	-	248
Primary	61.6	20.9	5.7	3.3	5.9	3.5	12.4	-	642
Secondary +	35.6	8.7	2.3	2.4	3.7	0.8	5.9	-	247
Wealth index									
Low	84.1	27.4	3.5	5.2	4.8	1.8	13.4	-	204
Medium	65.9	20.4	7.7	3.3	7.6	4.7	14.7	-	489
High	27.5	8.9	0.6	0.6	1.1	0.1	4.4	-	449
Total	**54.0**	**17.1**	**4.1**	**2.6**	**4.5**	**2.4**	**10.4**	**-**	**1,142**

*Total per cent may add to more than 100.0 due to multiple responses.

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.

Table 7.5 shows the excreta disposal for households in Meru South District. Most of the households use unimproved sanitation facilities with 77 per cent mainly using open pit or pit latrine without slab. Nearly one in five (21 per cent) households use sanitary means of excreta disposal. Among the improved sanitation facility, the Ventilated Improved Pit (VIP) latrine recorded the highest utilization at 10 per cent. Differentials within the wealth categories show that the upper wealth index has 43 per cent of households utilizing sanitary means of excreta disposal compared to only 6 and 8 per cent of members from middle and lowest household wealth index, respectively.

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 percentage of household population using sanitary means of excreta disposal, MICS Meru South District, 2008

	Type of toilet facility used by household															
	Improved sanitation facility					Unimproved sanitation facility										
Characteristic	Flush to piped sewer system	Flush to septic tank	Flush to pit (latrine)	Ventilated Improved Pit latrine (VIP)	Pit latrine with slab	Flush to unknown place/not sure/DK where	Pit latrine without slab/open pit	Pit latrine with slab and cover	Pit latrine with slab and foot rest	Pit latrine with slab, cover and foot rest	Hanging toilet/hanging latrine	No facilities or bush or field	Other	Total	Percentage of population using sanitary means of excreta disposal *	Number of household members
Education of household head																
None	0.0	3.5	0.8	20.2	1.8	0.5	61.4	0	7.4	1.2	0.0	2.9	0.3	100	34.9	820
Primary	0.1	0.0	0.0	4.1	1.4	0.0	87.1	0	5	0.1	0.2	0.9	1.0	100	10.7	2544
Secondary +	2.1	1.0	0.0	15.5	2.9	0.0	67.0	1.1	9.6	0.8	0.0	0.0	0.0	100	33.0	1023
Non-standard curriculum	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	32
Wealth index																
Low	0.0	0.0	0.0	3.4	0.0	0.0	86.0	1.4	1.3	0.0	0.7	6.0	1.2	100	6.1	754
Medium	0.0	0.0	0.0	3.6	1.5	0.0	90.6	0.0	2.6	0.5	0.0	0.1	1.0	100	8.3	2024
High	1.4	2.4	0.4	20.7	3.0	0.2	56.5	0.1	14.7	0.7	0.0	0.0	0.0	100	43.2	1641
Total	**0.5**	**0.9**	**0.1**	**9.9**	**1.8**	**0.1**	**77.1**	**0.3**	**6.9**	**0.5**	**0.1**	**1.1**	**0.7**	**100**	**20.9**	**4420**

* MICS Indicator 12; MDG Indicator 31
(*): Based on less than 25 un-weighted cases, hence not shown.

Methods of disposal of child's faeces are summarized in table 7.6 (EN.6). Nearly all (97 per cent) of children aged between 0-2 years had their stools safely disposed. Majority (87 per cent) of the households had the stools put or rinsed into toilet or latrine. The practice of children's safe waste disposal is more prevalent in households from the high wealth index than poor households. For example, 99 per cent of households from the high wealth index disposed children waste safely compared to 88 per cent for households from the low wealth index category.

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

Percentage distribution of children aged 0-2 years according to place of disposal of child's faeces, and the percentage of children aged 0-2 years whose stools are disposed of safely, MICS Meru South District,2008

Characteristic	What was done to dispose of the stools						Total	Proportion of children whose stools are disposed of safely *	Number of children aged 0-2 years
	Used toilet/latrine	Put/rinsed into toilet or latrine	Thrown into garbage (solid waste)	Buried	Left in the open	Other			
Mother's education									
None	15.8	77.1	0.0	0.0	4.7	2.3	100.0	93.0	48
Primary	8.3	87.3	0.5	0.6	2.3	1.1	100.0	95.5	386
Secondary+	10.2	89.8	0.0	0.0	0.0	0.0	100.0	100.0	180
Wealth index									
Low	7.0	81.3	0.4	0.9	7.0	3.3	100.0	88.2	120
Medium	11.3	86.7	0.5	0.5	0.6	0.4	100.0	98.0	288
High	8.1	91.4	0.0	0.0	0.4	0.0	100.0	99.6	208
Total	**9.4**	**87.2**	**0.3**	**0.4**	**1.8**	**0.9**	**100.0**	**96.6**	**615**

* MICS indicator 14

A summary for comparison of use of improved water sources and sanitary means of excreta disposal is presented in table 7.7 (EN.7). Approximately, 45 per cent of household's population use both improved sources of drinking water and sanitary means of excreta disposal. Two thirds of households in upper wealth index use improved sources of drinking water and sanitary means of excreta disposal compared to 41 per cent and nine per cent for middle and lowest wealth categories.

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, MICS Meru South District, 2008

Characteristic	Percentage of household population			Number of household members
	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	
Education of household head				
None	54.6	87.6	45.4	820
Primary	42.4	92.7	37.6	2544
Secondary +	73.2	89.6	64.0	1023
Non-standard curriculum	36.7	43.0	36.7	32
Wealth index				
Low	9.8	90.8	9.3	754
Medium	43.1	95.7	40.9	2024
High	81.8	84.4	66.8	1641
Total	**51.8**	**90.7**	**45.1**	**4420**

* MICS indicator 11; MDG indicator 30
** MICS indicator 12; MDG indicator 31

Reproductive Health 8

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

8.1 Fertility

Achieving national goals is directly linked to the fertility and resources available to support its population. Studies have shown that, in most of the developing countries the resources are meagre to support its population and hence it is very important to balance the population growth. To achieve this balanced growth for the country, each and every district has to play its role. To develop programs to target the fertility reduction, information about prevailing fertility levels become a crucial component. In MICS, birth histories of women aged 15-49 years from the sampled households were collected to measure the fertility level in Meru South district. Birth histories include details of all children ever born to a woman, such as child's name, sex, month and year of birth, survival status and if dead, the age at death.

Table 8.1 (RH.1a) presents the measures of current fertility levels in Meru South district for the three-year period preceding the survey, corresponding to the period from mid-2005 to mid-2008. Current fertility measures such as Age-Specific Fertility Rates (ASFRs) and total fertility rate (TFR) are presented. ASFR's are calculated by dividing the number of births to women in a specific age group by the number of women years lived during a given period, the TFR is defined as the average number of children a woman would have if she went through her entire reproductive period (15-49 years) reproducing at the prevailing ASFR.

The total fertility rate (TFR) in the district is 3.7 children per woman for the three year period preceding the survey. The lowest TFR of 3.2 was recorded within 3-5 years from the time of survey while the highest (3.9) was recorded for 12-14 years preceding the survey. Overall, fertility peaks between 20-24, 25-29 and 30-34 age categories.

Table 8.1 (RH.1a): Current fertility

Births, exposure, and age specific fertility rates (ASFR) for three-year periods preceding the survey, by mother's age at the time of the birth, and total fertility rate (TFR),MICS Meru South District, 2008

	Age group	Number of years preceding the survey				
		0-2	3-5	6-8	9-11	12-14
Births	15-19	35	46	44	42	47
	20-24	110	71	101	96	103
	25-29	107	107	97	70	75
	30-34	67	60	55	63	52
	35-39	38	26	37	34	5
	40-44	12	13	8	0	
	45-49	4	0	NA	NA	
Exposure	15-19	487	515	526	550	612
	20-24	524	533	592	594	502
	25-29	576	609	541	429	375
	30-34	568	467	382	359	322
	35-39	408	362	347	219	41
	40-44	348	281	90	1	
	45-49	153	11	NA	NA	NA
Age Specific Fertility Rate	15-19	72	90	83	77	76
	20-24	211	134	171	162	205
	25-29	185	175	180	164	200
	30-34	117	128	145	175	161
	35-39	93	71	106	155	133
	40-44	35	47	83	0	
	45-49	23	0	NA	NA	
Total Fertility Rate		**3.7**	**3.2**	**3.8**	**3.7**	**3.9**

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

The percentage distribution of all women and married women based on the number of children even born and living are shown in Table 8.2 (RH.1b). The mean number of children ever born to married women aged between 15-49 years is 3.2 and that of all women is 3.1. For young women aged between 15-19 years, 90 per cent have never given birth but eight per cent have given birth to one child. As expected, the mean number of children, both for ever born and those living steadily increases with women's age. On average, Meru South district women attain a parity of 6.1 children per woman at the end of their child bearing window.

Table 8.2 (RH.1b): 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, MICS Meru South District, 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	90.4	8.2	1.4							100.0	170	1.2	1.2
20-24	29.7	46.1	17.5	6.5		0.2				100.0	171	1.5	1.4
25-29	9.8	36.2	33.3	14.3	3.3	2.8	0.2			100.0	174	2.0	1.9
30-34	5.8	23.1	30.4	22.1	13.1	3.5	0.6	1.2	0.2	100.0	213	2.6	2.5
35-39	2.1	15.3	17.9	28.2	17.0	8.3	7.5	3.1	0.5	100.0	143	3.5	3.3
40-44		7.8	9.2	15.7	35.4	10.9	12.9	7.1	1.0	100.0	122	4.6	4.4
45-49		2.4	6.0	7.6	24.6	23.6	17.2	6.1	12.5	100.0	87	6.1	5.8
Total	**21.9**	**22.1**	**18.2**	**13.8**	**11.3**	**5.4**	**4.0**	**1.9**	**1.2**	**100.0**	**1,079**	**3.1**	**2.9**
										Currently Married Women			
15-19	(*)	(*)	(*)							100.0	15	0.5	0.5
20-24	6.6	56.1	26.0	10.9		0.4				100.0	89	1.4	1.3
25-29	2.1	28.3	42.7	18.3	4.3	4.1	0.3			100.0	122	2.1	2.0
30-34		14.5	32.1	28.7	17.3	4.7	0.9	1.6	0.3	100.0	157	2.9	2.7
35-39		9.1	18.3	32.1	19.9	7.2	9.1	3.8	0.6	100.0	118	3.7	3.5
40-44		3.8	5.7	17.3	41.4	13.8	12.5	4.2	1.2	100.0	96	4.7	4.5
45-49		2.9	4.2	9.0	20.1	26.9	18.9	6.4	11.6	100.0	73	6.1	5.9
Total	**2.5**	**19.1**	**23.5**	**20.6**	**16.5**	**8.1**	**5.7**	**2.4**	**1.6**	**100.0**	**669**	**3.2**	**3.1**

(*): Based on less than 25 un-weighted cases, hence not shown.

The same pattern is replicated for currently married women except for proportions of those who have ever given birth which goes up for nearly all age groups. The mean number of children ever born and living are nearly similar for women currently married compared to all women combined. It is noted that high proportion (13 per cent for all women and 12 per cent for currently married) of older women have given birth to over 8 children.

8.2 Teenage Pregnancy and Motherhood

Teenage pregnancy in Meru South district is presented in Table 8.3 (RH.2). Fifteen per cent of teenagers (age 15-19 years) had began child bearing. About 10 per cent already had live birth and five per cent were pregnant with their first child. By the 18th birthday, over 15 per cent of teenage women had begun child bearing. Differentials by wealth index show no major differences with nearly all having the same likelihood of initiating child bearing irrespective of the household wealth index.

Table 8.3 (RH.2): Teenage pregnancy and motherhood

Percentage of women age 15-19 years who are mothers or pregnant with their first child and percentage who have begun child bearing, MICS Meru South District, 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	0.0	0.0	34
16	0.0	1.2	1.2	48
17	11.9	0.0	11.9	19
18	18.6	8.0	26.7	34
19	21.8	16.0	37.8	35
Education				
None	0.0	100.0	100.0	3
Primary	9.7	4.3	14.0	126
Secondary +	10.1	1.4	11.5	41
Wealth index				
Low	7.0	7.8	14.8	38
Medium	11.7	3.7	15.4	89
High	7.7	6.3	14.0	43
Total	**9.6**	**5.3**	**14.9**	**170**

8.3 Contraception

Appropriate family planning is important to the health of women and children by: (1) preventing pregnancies that are too early or too late; (2) extending the period between births; and (3) limiting the number of children. A World Fit for Children goal is to ensure access by all couples to information and services that can help to prevent pregnancies that are too early, too closely spaced, too late or too many.

Table 8.4 (RH.3) shows percentage of women who are currently married or in union and are using contraception. The current use of contraceptive was reported by 73 per cent of currently married women or in union. The modern method was reported by 72 per cent while traditional methods were mentioned by a negligible percentage of women currently married or in union. Nearly half (49 per cent) of the women use injections as the main contraceptive method, followed by 15 per cent who use pills. About a quarter (27 per cent) of currently married or in union women are not using any method of contraception.

Women from high wealth index households are more likely to use a modern method of contraception than those from low wealth index households. Only women without any formal education tend to use traditional methods of contraception as shown by six per cent that stated using at least one of the traditional methods as opposed to those with primary and higher education levels.

Table 8.4 (RH.3): 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, MICS Meru South District, 2008

	Percentage of women (currently married or in union) who are using:														
Characteristic	Not using any method	Female sterilization	Pill	IUD	Injections	Implants	Condom	Diaphragm /foam/jelly	LAM	Periodic abstinence	Total	Any modern method	Any traditional method	Any method *	Number of women currently married or in union
Age															
15-19	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100	(*)	(*)	(*)	15
20-24	32.6	0	15.6	3.3	48	0	0.5	0	0	0	100	67.4	0	67.4	89
25-29	18.4	0	12.4	1.4	63.2	4.1	0.5	0	0	0	100	81.6	0	81.6	122
30-34	24.7	0.2	22.4	3.7	47.5	0.7	0	0	0.4	0.4	100	74.5	0.8	75.3	157
35-39	19.4	0	11.6	3.5	63.1	1.4	0.5	0	0.5	0	100	80.1	0.5	80.6	118
40-44	25.1	4.2	17.4	12.7	32.7	0	4.3	0.3	3.2	0	100	71.7	3.2	74.9	96
45-49	45.5	4.2	9.6	3.7	33.8	1.5	0.8	0	1	0	100	53.5	1	54.5	73
Number of living children															
0	86.9	0	13.1	0	0	0	0	0	0	0	100	13.1	0	13.1	19
1	36.2	0	15.6	3	43.8	0.6	0.8	0	0	0	100	63.8	0	63.8	133
2	15.1	0	14.6	2.5	64.9	2.8	0	0	0	0	100	84.9	0	84.9	168
3	20.2	2.1	18.4	7.9	50.4	0.8	0	0	0	0.2	100	79.6	0.2	79.8	139
4+	29.8	2.2	13.6	4.9	43.3	1	2.5	0.2	2.4	0.2	100	67.7	2.5	70.2	210
Education															
None	24.3	4.5	9	5.4	48	2.3	0.9	0	5.1	0.5	100	70.1	5.6	75.7	65
Primary	27.5	1.1	13.5	2.5	52.4	1.4	1.1	0.1	0.3	0.1	100	72.1	0.4	72.5	398
Secondary +	26.9	0.2	20.4	7.8	42.9	0.9	0.6	0	0.3	0	100	72.8	0.3	73.1	206
Wealth index															
Low	32.3	0	9.4	0.6	55.6	0	0.7	0	1.4	0	100	66.3	1.4	67.7	79
Medium	30.2	1.2	14.3	3.4	47.3	1.6	1.4	0.1	0.4	0.1	100	69.3	0.5	69.8	304
High	22.3	1.3	17.8	6.5	49.2	1.4	0.6	0	0.9	0.1	100	76.7	1	77.7	287
Total	**27**	**1.1**	**15.2**	**4.4**	**49.1**	**1.3**	**0.9**	**0**	**0.7**	**0.1**	**100**	**72.1**	**0.8**	**73**	**669**

* MICS indicator 21; MDG indicator 19C
(*): Based on less than 25 un-weighted cases, hence not shown.

8.4 Unmet Need

Unmet need[5] for contraception 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 includes women 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 when 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 women 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 unmet need for spacing and unmet need for limiting.

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

Table 8.5 shows percentage distribution of women aged 15-49 years currently married or in union with an unmet need for contraception. The current use of contraceptives in Meru South district stands at 73 per cent and nearly all (97 per cent) of women with a demand for contraceptives are satisfied.

[5] 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.4): 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, MICS Meru South District, 2008

Characteristic	Current use of contraception*	Unmet need for contraception: For spacing**	Unmet need for contraception: For limiting***	Unmet need for contraception: Total ****	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
Age							
15-19	(*)	(*)	(*)	(*)	15	(*)	7
20-24	67.4	4.9	0.0	4.9	89	93.2	64
25-29	81.6	0.0	0.0	0.0	122	100.0	99
30-34	75.3	3.0	0.0	3.0	157	96.2	123
35-39	80.6	1.0	0.6	1.6	118	98.1	97
40-44	74.9	0.0	0.0	0.0	96	100.0	72
45-49	54.5	0.0	0.0	0.0	73	(100)	40
Education							
None	75.7	0.0	0.0	0.0	65	(100)	49
Primary	72.5	1.5	0.2	1.7	398	97.8	295
Secondary +	73.1	3.4	0.0	3.4	206	95.6	158
Wealth index							
Low	67.7	1.4	0.9	2.2	79	96.8	55
Medium	69.8	0.5	0.0	0.5	304	99.2	214
High	77.7	3.5	0.0	3.5	287	95.6	233
Total	**73.0**	**1.9**	**0.1**	**2.0**	**669**	**97.3**	**502**

* MICS indicator 21; MDG indicator 19C
**** MICS indicator 98
***** MICS indicator 99

8.5 Antenatal Care (ANC)

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

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

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

Table 8.6 (RH.5) presents distribution of personnel providing antenatal care to women who gave birth two years preceding the survey. Nearly all (98 per cent) of the women who gave birth within the two years preceding the survey had had access to services of skilled personnel during antenatal visits. Over two thirds (70 per cent) sought assistance from nurse/midwife and 28 per cent were assisted by medical doctors.

Table 8.6 (RH.5): 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 MICS Meru South District, 2008

	Person providing antenatal care**							
Characteristic	Medical doctor	Nurse/ midwife	Traditional birth attendant	Relative/ Friend	No antenatal care received	Total	Any skilled personnel *	Number of women who gave birth in the preceding two years
Age								
15-19	(5.2)	(91.5)	(0.0)	(0.0)	(3.3)	(100)	(96.7)	13
20-24	35.4	63.1	0.0	0.0	1.4	100.0	98.6	65
25-29	28.6	67.8	0.8	1.0	1.7	100.0	96.4	72
30-34	26.1	72.8	0.0	0.0	1.1	100.0	98.9	52
35-49	23.4	75.1	1.5	0.0	0.0	100.0	98.5	49
Education								
None	21.6	71.4	4.3	0.0	2.7	100.0	93.0	17
Primary	29.5	68.1	0.3	0.4	1.6	100.0	97.6	168
Secondary +	24.5	75.5	0.0	0.0	0.0	100.0	100.0	66
Wealth index								
Low	42.9	56.3	0.0	0.0	0.8	100.0	99.2	55
Medium	27.4	69.0	1.2	0.0	2.5	100.0	96.4	111
High	18.1	81.0	0.0	0.9	0.0	100.0	99.1	86
Total	**27.6**	**70.3**	**0.5**	**0.3**	**1.3**	**100.0**	**97.9**	**252**

* MICS indicator 20

(): Figures based on 25 -49 un-weighted cases

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

Table 8.7 (RH.6) shows the distribution of types of ante-natal care to women of the reproductive ages who gave birth in the two years preceding the survey. The data shows that nearly all (99 per cent) of women received antenatal care during their pregnancy. The least of the services received was weight measurement (91 per cent) while taking of blood sample was highest at 97 per cent. Differentials among the age, education level and wealth categories show a high proportion of women receiving antenatal care /services by increasing levels of these attributes.

Table 8.7 (RH.6): Antenatal care (ANC)

Percentage of pregnant women receiving antenatal care among women aged 15-49 years who gave birth in two years preceding the survey and percentage of pregnant women receiving specific care as part of the antenatal care received, MICS Meru South District, 2008

		Percentage of pregnant women who had:				
Characteristics	Per cent of pregnant women receiving ANC one or more times during pregnancy*	Blood pressure measured	Urine specimen taken	Weight measured	Blood sample taken	Number of women who gave birth in two years preceding survey
Age						
15-19	(96.7)	(80.9)	(82.6)	(76.9)	(96.7)	13
20-24	98.6	97.3	97.9	92.2	96.8	65
25-29	98.3	96.4	95.8	88.4	95.7	72
30-34	98.9	94.5	97.9	94.5	98.9	52
35-49	100.0	95.0	97.3	93.3	97.6	49
Education						
None	(97.3)	(93.3)	(93.3)	(91.3)	(97.3)	17
Primary	98.4	94.7	95.2	88.5	96.2	168
Secondary +	100.0	96.9	100.0	97.1	99.2	66
Wealth index						
Low	99.2	92.1	95.8	87.9	96.8	55
Medium	97.5	94.3	94.5	92.2	96.1	111
High	100.0	98.2	99.1	91.3	98.5	86
Total	98.7	95.2	96.4	91.0	97.1	252

* MICS indicator 4
(*):Figures based on less than 25 un-weighted cases
(): Figures based on 25 -49 un-weighted 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 transport is available to a referral facility for obstetric care in case of emergency. A World Fit for Children goal is to ensure that women have ready and affordable access to skilled attendance at delivery. The indicators are the proportion of births with a skilled attendant and proportion of institutional deliveries. The skilled attendant at delivery indicator is also used to track progress towards the Millennium Development target of reducing maternal mortality ratio by three quarters between 1990 and 2015.

The MICS included a number of questions to assess the proportion of births attended by a skilled attendant. *A skilled attendant* includes a doctor, nurse, midwife or auxiliary midwife.

Approximately four in every five (81 per cent) of births that occurred during the two years preceding the survey were delivered by skilled personnel as shown in Table 8.8 (RH.7). The more educated a woman is, the more likely she is to deliver a baby in a health facility and with assistance from a skilled person. The same trend is observed with the level of wealth, where only 67 per cent of women in lowest wealth index delivered their child in a health facility compared to 93 per cent in upper wealth index.

Over one quarter (27 per cent) were delivered with assistance by a medical doctor with nurses or midwives assisting over half (54 per cent) for the births occurring during the two years preceding the survey. Traditional birth attendants assisted less than 2 per cent of the women and relatives or friends assisting in 16 per cent of the cases.

Table 8.8 (RH.7): 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, MICS Meru South District, 2008

	Person assisting at delivery										
Characteristics	Medical doctor	Nurse/ mid-wife	Traditional birth attendant	Commu -nity health worker	Relative /friend	Other/ missing	No atten -dant	Total	Any skilled personnel *	Delivered in health facility **	Number of women who gave birth in preceding two years
Age											
15-19	(15.0)	(66.4)	(5.2)	(0.0)	(9.9)	(3.5)	0.0)	(100.0)	(81.4)	(77.2)	13
20-24	34.3	47.5	0.0	0.0	17.2	0.0	1.1	100.0	81.8	79.8	65
25-29	31.9	54.3	1.5	0.0	11.2	0.0	1.0	100.0	86.2	84.9	72
30-34	24.5	52.8	0.0	1.0	20.6	0.0	1.1	100.0	77.3	75.4	52
35-49	17.8	57.9	2.8	0.0	16.8	1.0	3.8	100.0	75.7	77.0	49
Education											
None	(38.1)	(44.7)	(4.3)	(0.0)	(12.9)	(0.0)	(0.0)	(100.0)	(82.9)	(82.9)	17
Primary	25.9	49.7	1.4	0.3	20.5	0.6	1.6	100.0	75.7	74.5	168
Secondary +	28.3	65.4	0.0	0.0	4.4	0.0	1.9	100.0	93.7	92.0	66
Wealth index											
Low	30.3	36.5	1.1	1.0	28.7	0.0	2.3	100.0	66.9	67.0	55
Medium	23.3	54.5	2.3	0.0	17.5	0.8	1.7	100.0	77.7	75.3	111
High	30.8	63.2	0.0	0.0	5.1	0.0	0.9	100.0	94.0	93.3	86
Total	**27.3**	**53.6**	**1.3**	**0.2**	**15.7**	**0.4**	**1.5**	**100.0**	**80.9**	**79.7**	**252**

* MICS indicator 4; MDG indicator 17
** MICS indicator 5
(): Figures based on 25 -49 un-weighted 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 the quality of home care is the major determinant of the child's development during this period. In this context, adult activities with children, presence of books in the home, for the child, and the conditions of care are important indicators of quality of home care. 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 survey. These included the involvement of adults with children in the following activities: reading books or looking at picture books, telling stories, singing songs, taking children outside the home, compound or yard, playing with children, and spending time with children naming, counting, or drawing things.

For about half (53 per cent) of the children aged under-five, at least an adult within their household is engaged in about four activities that promote learning and school readiness during the 3 days preceding the survey as shown in Table 9.1 (CD.1). The results also indicate that the father's involvement in such activities was somewhat limited with only 12 per cent of father's involved with one or more activities averaging at 0.2 activities. A relatively high proportion of children (30 per cent) were living in a household without their natural fathers. The proportions of an adult involvement in activities that promote learning activities by household wealth index do not show big variations.

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, MICS Meru South District, 2008

Characteristic	Percentage of children aged 0-59 months					Number of children aged 0-59 months
	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 engage in with the child	Living in a household without their natural father	
Sex						
Male	53.3	3.5	13.3	0.3	32.1	455
Female	53.3	3.5	11.3	0.2	29.3	461
Age						
0-23 months	32.4	2.6	8.4	0.1	28.9	401
24-59 months	69.7	4.2	15.3	0.3	32.1	515
Mother's education						
None	60.3	3.9	11.4	0.3	63	99
Primary	50.8	3.4	12.8	0.2	24.8	559
Secondary+	56.2	3.6	11.4	0.2	31.1	258
Father's education						
None	52.6	3.6	21.6	0.2	0	55
Primary	52.3	3.4	17	0.3	0	419
Secondary +	63.1	3.7	16.7	0.4	0	159
Father not in household	49.5	3.4	0.4	0	100	281
Wealth index						
Low	55.2	3.6	6.5	0.2	30.9	175
Medium	50.3	3.4	10.2	0.2	31	440
High	56.8	3.6	18.7	0.3	30.1	300
Total	**53.3**	**3.5**	**12.3**	**0.2**	**30.7**	**916**

* Any adult has engaged in 4 or more activities to promote learning and school readiness in the past 3 days.

** Father has provided one or more activities to promote learning and school readiness.

10.1 Pre-School Attendance and School Readiness

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

Results from Meru South district shows that 21 per cent of children aged between 36-59 months are attending pre-school as shown in table 10.1 (ED.1). The proportion of children currently attending early childhood is slightly higher for males (24 per cent) compared to females (19 per cent). A big variation is evident in socioeconomic status where 41 per cent of children living in high wealth index households attend pre-school, while the figure drops to 19 per cent in low wealth index households. As expected, children of young age group 36-47 months are less likely (four per cent) to attend pre-school in comparison to 48-59 months old (36 per cent). Overall, nearly all children attend pre-school program before joining the first grade education level.

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 percentage of first graders who attended pre-school, MICS Meru South District, 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 first grade who attended preschool program in previous year**	Number of children attending first grade
Sex				
Male	23.8	153	96.2	26
Female	18.5	152	98.4	28
Age of child				
36-47 months	4.4	148	NA	0
48-59 months	36.8	158	NA	0
6 years	NA	0	97.4	54
Mother's education				
None	24.6	18	100	7
Primary	17	206	97	30
Secondary+	30.8	82	97	17
Wealth index				
Low	18.9	56	100	1
Medium	10.3	157	96.8	29
High	40.9	92	98	24
Total	**21.1**	**306**	**97.4**	**54**

*** MICS Indicator 52**
**** MICS Indicator 53**

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 and A World Fit for Children. Education is a vital prerequisite for combating poverty, empowering women, protecting children from hazardous and exploitative labour and sexual exploitation, promoting human rights and democracy, protecting the environment, and influencing population growth.

The indicators for primary and secondary school attendance include:

- Net intake rate in primary education
- 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

The distribution of results of children who are of primary school entry age in Meru South District is presented in table 10.2 (ED.2). Nearly six out of ten children aged 6 years (primary school entry age) are attending the first grade of primary school with more female children attending (70 per cent) in comparison to males (49 per cent). Children from high wealth index households are more likely to be in school at the recommended age than those from more poor households. For instance, over three quarters of primary school entry age children from the high wealth index households are attending grade 1 in primary school versus only 58 per cent for those from the medium wealth index households.

Table 10.2 (ED.2): Primary school entry

Percentage of children of primary school entry age (6 years old) attending grade 1, MICS Meru South District, 2008

Characteristics	Percentage of children of primary school entry age currently attending grade 1 *	Number of children of primary school entry age
Sex		
Male	49.4	64
Female	69.7	55
Age		
6	58.8	119
Mother's education		
None	(*)	13
Primary	49.6	76
Secondary+	76.8	31
Wealth index		
Low	(*)	15
Medium	58.3	60
High	76.6	45
Total	**58.8**	**119**

*** MICS Indicator 54**
(*): Based on less than 25 un-weighted cases, hence not shown.

Table 10.3 (ED.3) provides the percentage of children of primary school age (6 – 13 years) attending primary or secondary school. The majority (91 per cent) of children of primary school age are attending school with most ages reporting a proportion of over 97 per cent except those aged 6 years (60 per cent) and 7 years (77 per cent). This disparity could be because of late entry to the schooling system. It is worthy to note that the girl child has access to school and have a higher attendance rate (94 per cent) than boys (88 per cent). The mother's level of education and socio-economic status is a factor that influences primary or secondary school attendance. More educated mothers and those from households in the upper wealth index have higher proportions of children attending school compared to lower wealth index households or where mothers are less educated.

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), MICS Meru South District, 2008

	Net attendance ratio*			Number of children		
Characteristics	Male	Female	Total	Male	Female	Total
Age						
6	51.4	69.7	59.8	64	55	119
7	73.6	81.4	77.0	61	48	109
8	96.5	98.6	97.8	41	64	105
9	95.3	99.2	97.2	56	56	112
10	96.0	100.0	98.2	53	65	118
11	100.0	99.4	99.6	44	70	115
12	99.4	98.5	99.0	73	57	131
13	100.0	98.3	99.2	58	53	111
Mother's education						
None	84.9	96.1	90.9	60	70	130
Primary	85.4	91.2	88.3	267	275	542
Secondary+	95.0	98.2	96.6	122	124	246
Wealth index						
Low	75.1	86.7	81.4	78	92	169
Medium	86.3	93.9	90.0	211	203	414
High	96.4	97.4	96.9	163	174	337
Total	**88.0**	**93.8**	**91.0**	**452**	**469**	**921**

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

The secondary school Net Attendance Ratio is presented in Table 10.4 (ED.4). It is noted that, only 30 per cent of the children of secondary school age (14 – 17 years) are attending secondary school. A gender distribution shows opposite trend of Net Attendance Ratio for those aged 6 – 13 years in primary or higher. Boys have higher NAR (32 per cent) compared to girls (29 per cent). As expected, the better the socio-economic status of the household, the higher the proportion attending secondary schools. A look at the ages reveals that only 56 per cent of children aged 17 years are attending secondary school or higher. This could mean that most of the children either attend secondary school late or do not go up to secondary level.

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), MICS Meru South District, 2008

	Net attendance ratio*			Number of children		
Characteristics	Male	Female	Total	Male	Female	Total
Age						
14	10.3	8.4	9.1	40	75	115
15	12.0	46.5	26.0	57	39	95
16	50.9	33.1	43.1	61	48	108
17	55.8	55.5	55.7	32	22	54
Mother's education						
None	38.3	19.4	27.4	30	41	72
Primary	29.8	17.2	24.0	92	78	170
Secondary+	29.5	56.6	42.8	29	27	56
Mother not in Household	31.7	42	36.7	39	37	76
Wealth index						
Low	8.6	9.7	9.2	30	33	63
Medium	29.6	21.7	26.0	113	97	210
High	50.6	52.5	51.6	47	53	100
Total	**31.5**	**28.5**	**30.0**	**190**	**183**	**373**

*** MICS indicator 56**

Table 10.5 (ED.4w) presents percentage of children of secondary school age attending primary school. It is evident that children in low wealth index progress to secondary school at an advanced age in comparison to higher wealth categories. This is shown by highest proportion (47 per cent) of secondary school age children who are still in primary schools. This figures declines gradually to 10 per cent for those from high wealth index households. This scenario is also evident with mother's education status where children of mothers with low education tend to have a higher proportion of students of secondary school age still in primary school.

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, MICS Meru South District, 2008

Characteristics	Percentage attending primary school			Number of children		
	Male	Female	Total	Male	Female	Total
Age						
14	43.8	38.4	40.3	40	75	115
15	29.3	3.8	19.0	57	39	95
16	22.0	20.9	21.5	61	48	108
17	5.8	0.0	3.5	32	22	54
Mother's education						
None	36.4	32.2	34.0	30	41	72
Primary	26.1	25.1	25.6	92	78	170
Secondary +	15.9	9.7	12.9	29	27	56
Mother not in HH	25.5	12.9	19.4	39	37	76
Wealth index						
Low	56.6	37.4	46.5	30	33	63
Medium	23.0	25.0	23.9	113	97	210
High	14.1	6.9	10.3	47	53	100
Total	**26.1**	**22.0**	**24.1**	**190**	**183**	**373**

* 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.

The ratio of girls to boys attending primary and secondary education is provided in Table 10.6 (ED.7). These ratios are better known as the Gender Parity Index (GPI). Notice that the ratios included here are obtained from Net Attendance Ratios rather than Gross Attendance Ratios. The last ratios provide an erroneous description of the GPI mainly because in most of the cases the majority of over-aged children attending primary education tend to be boys.

The table shows that gender parity for primary school is close to 1:1, indicating not much of a difference in the attendance of girls and boys to primary school. The same conclusion is made for secondary education, even though the indicator decreases to 0.9. As expected, the attendance ratio increases with the level of wealth index of the household and educational level of the mother. However, a very striking difference is observed in the school attendance for both boys and girls with respect to the household wealth index. The secondary school net attendance ratio for both boys and girls who live in low wealth index households are below 10 compared with over 50 among those who live in 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, MICS Meru South District, 2008

Characteristics	Primary school net attendance ratio (NAR)		Gender parity index (GPI) for primary school NAR*	Secondary school net attendance ratio (NAR)		Gender parity index (GPI) for secondary school NAR*
	Girls	Boys		Girls	Boys	
Sex						
Male	NA	88.0	NA	NA	31.5	NA
Female	93.8	NA	NA	28.5	NA	NA
Mother's education						
None	96.1	84.9	1.1	19.4	38.3	0.5
Primary	91.2	85.4	1.1	17.2	29.8	0.6
Secondary +	98.2	95.0	1.0	56.6	29.5	1.9
Mother not in Household	NA	NA	NA	42.0	31.7	1.3
Wealth index						
Low	86.7	75.1	1.2	9.7	8.6	1.1
Medium	93.9	86.3	1.1	21.7	29.6	0.7
High	97.4	96.4	1.0	52.5	50.6	1.0
Total	**93.8**	**88.0**	**1.1**	**28.5**	**31.5**	**0.9**

* 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

One of the World Fit for Children goals is to achieve adult literacy. Adult literacy is also an MDG indicator, relating to both men and women. In MICS, since only a women's questionnaire was administered, the results are based only on females aged 15-24. Literacy was assessed on the ability of women to read a short simple statement or on school attendance.

The adult literacy rates for the two age group (15-19) and (20 -24) for women in Meru South district is presented in table 10.7. Overall, 87 per cent of women aged 15-24 years are literate in the district. The proportions of those who are literate are higher among the younger age group 15-19 years (92 per cent) compared with the older age group 20-24 years (82 per cent). The level of literacy increases with increasing levels of the household wealth index (from a low of 82 among the low wealth index group to a high of 91 among the high wealth index category).

Table 10.7 (ED.8): Adult literacy

Percentage of women aged 15-24 years that are literate*, MICS Meru South District, 2008

Characteristics	Percentage literate*	Percentage not known**	Number of women aged 15-24 years
Education			
None	(*)	(*)	13
Primary	84.5	0.0	224
Secondary +	100	0.0	104
Age			
15-19	92.3	0.0	170
20-24	82.4	0.0	171
Wealth index			
Low	82.2	0.0	66
Medium	87.0	0.0	164
High	90.7	0.0	111
Total	**87.3**	**0.0**	**340**

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

** The percentage not known includes those for whom no sentence in the required language was available or for whom no response was reported. If the percentage 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.

(*): Based on less than 25 un-weighted cases, hence not shown.

Child Protection 11

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 of the children. A World Fit for Children has a goal to develop systems to ensure the registration of every child at or shortly after birth, and fulfil his or her right to acquire a name and a nationality, in accordance with national laws and relevant international instruments. The indicator is the percentage of children under five years of age whose birth is registered.

The birth registration for children age 0 – 59 months for Meru South district is presented in table 11.1 (CP.1). Over three quarters of children are registered, with those aged between 12-23 months having the highest proportion (79 per cent) of registration. In general, there are no much variations in birth registration across age and sex. However, mother's education seems to influence birth registration with those who are past primary education having a higher proportion (85 per cent) and those without education having slightly lower proportions (64 per cent) of their children registered. A similar pattern is exhibited with wealth categories.

Among those whose births are not registered, various reasons were cited as hindrances to the registration of children. This included high cost (21 per cent), lack of knowledge of place to register (20 per cent), lack of awareness of need of registration (36 per cent), avoidance of paying fine for being late, long travel distances and others. For mothers without education, 40 per cent cited high costs involved as the main reason why they did not have their children registered.

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, MICS Meru South District, 2008

Characteristics	Birth is registered *	Don't know if birth is registered	Number of children aged 0-59 months	Birth is not registered because: 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	75.8	0.5	455	14.1	16.5	37.1	2.6	17.5	5.7	6.4	100.0	65
Female	75.7	0.6	461	28.0	10.0	34.0	0.0	22.0	3.7	2.4	100.0	69
Age (month)												
0-11	79.1	0.0	178	(25.1)	(10.7)	(41.9)	(0.0)	(16.3)	(6.0)	(0.0)	100.0	28
12-23	78.0	0.0	204	(13.8)	(16.8)	(35.5)	(3.0)	(20.8)	(7.5)	(2.6)	100.0	27
24-35	78.0	0.9	214	(12.2)	(26.3)	(46.3)	(0.0)	(8.5)	(6.7)	(0.0)	100.0	27
36-47	71.8	0.4	153	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	25
48-59	70.3	1.4	167	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	26
Mother's education												
None	63.7	3.1	99	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	26
Primary	73.8	0.1	559	18.2	14.1	38.7	0.9	22.3	5.0	0.8	100.0	90
Secondary+	84.6	0.4	258	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	17
Wealth index												
Low	65.8	0.9	175	(28.0)	(6.3)	(25.0)	(4.0)	(20.0)	(6.8)	(9.9)	100.0	42
Medium	75.8	0.2	440	23.8	15.6	29.8	0.0	25.5	4.0	1.3	100.0	67
High	81.5	0.8	300	(2.6)	(18.4)	(69.3)	(0.0)	(3.6)	(3.1)	(3.0)	100.0	24
Total	**75.8**	**0.5**	**916**	**21.3**	**13.2**	**35.5**	**1.3**	**19.8**	**4.7**	**4.3**	**100.0**	**133**

MICS Indicator 62
(*):Figures based on less than 25 un-weighted cases
( ): Figures based on 25 -49 un-weighted cases

11.2 Child Labour

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

Ages 5-11: at least 1 hour of economic work or 28 hours of domestic work per week.
Ages 12-14: at least 14 hours of economic work or 28 hours of domestic work per week.

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

Table 11.2 (CP.2) presents the results of analysis of child labour. Overall, seven per cent of children in Meru South district are participating in child labour with a higher proportion of males. The proportion of children in child labour is higher in households from the low wealth index at 13 per cent compared to six percent for those from the high wealth index

Table 11.2 (CP.2): Child labour

Percentage of children aged 5-14 years who are involved in child labour activities by type of work, MICS Meru South District, 2008

Characteristics	Working outside household		Household chores for 28+ hours/week	Working for family business	Total child labour *	Number of children aged 5-14 years
	Paid work	Unpaid work				
Sex						
Male	1.1	0.1	2.0	4.8	7.9	567
Female	0.9	0.1	2.0	3.7	6.8	617
Age						
5-11 years	0.5	0.1	2.0	5.6	8.0	826
12-14 years	2.2	0.0	2.1	1.0	5.9	357
School participation						
Yes	1.0	0.1	2.1	4.2	7.4	1134
No	0.9	0.0	0.8	4.3	6.0	50
Mother's education						
None	1.1	0.0	3.9	4.5	9.5	178
Primary	1.1	0.1	2.0	4.2	7.4	709
Secondary+	0.7	0.2	0.9	4.2	5.9	294
Wealth index						
Low	2.1	0.0	7.0	4.1	12.6	210
Medium	0.5	0.1	0.7	5.0	6.7	560
High	1.2	0.1	1.3	3.2	5.6	413
Total	**1.0**	**0.1**	**2.0**	**4.2**	**7.4**	**1184**

*** MICS Indicator 71**

Table 11.3 (CP.3) presents the distribution of children classified as student labourers or as labourer students. Student labourers are the children attending school that were involved in child labour activities at the time of the survey. Out of the 96 per cent of the children age 5-14 years attending school, seven per cent are also involved in child labour activities. On the other hand, out of the seven per cent of the children classified as child labourers, majority of them are also attending school (97 per cent). The results show that labourer students and student labourers have nearly the same proportions across selected background characteristics.

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

Percentage of children aged 5-14 years who are labourer students and student labourers, MICS Meru South District, 2008

Characteristics	Percentage of children in child labour *	Percentage of children attending school ***	Number of children aged 5-14	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	7.9	95.6	567	95.2	45	7.9	542
Female	6.8	96.0	617	98.0	42	7.0	592
Age							
5-11 years	8.0	94.8	826	96.8	66	8.2	783
12-14 years	5.9	98.1	357	96.0	21	5.7	351
Mother's education							
None	9.5	95.4	178	100.0	17	9.9	170
Primary	7.4	94.6	709	(95.1)	53	7.5	670
Secondary+	5.9	99.1	294	(*)	17	5.8	291
Wealth index							
Low	12.6	90.9	210	90.3	26	12.5	191
Medium	6.7	96.2	560	(*)	37	6.9	539
High	5.6	97.8	413	(*)	23	5.7	404
Total	**7.4**	**95.8**	**1184**	**96.6**	**87**	**7.4**	**1134**

**** MICS Indicator 72**
****** MICS Indicator 73**
(*):Figures based on less than 25 un-weighted 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 the Meru South district MICS, mothers/caretakers of children age 2-14 years were asked a series of questions on the ways parents discipline their children. Note that for the child discipline module, one child aged between 2-14 years per household was selected randomly during fieldwork. Out of these questions, the two indicators used to describe aspects of child discipline are: 1) the number of children 2-14 years that experience psychological aggression as punishment or minor physical punishment or severe physical punishment; and 2) the number of parents/caretakers of children 2-14 years of age that believe that in order to raise their children properly, they need to physically punish them.

The results of the aspects of child discipline for Meru South district are presented in table 11.4 (CP.4). Approximately, eight in every ten children aged between 2-14 years are subjected to at least one form of psychological or physical punishment by their mothers/caretakers or other household members. Most punishments were mostly minor physical (60 per cent) or psychological (62 per cent) while non-violent discipline and severe physical punishment each accounts for 19 per cent.

About 88 per cent of mothers/caretakers believed that children should be physically punished, which corroborates with the high proportion of children who were subjected to minor physical punishment (60 per cent). Generally, psychological or physical punishment meted on children reduces

with age as shown by 79 per cent among the 10-14 age group versus 83 per cent among the 2-4 years age category. On the other hand, severe physical punishment increases with increasing child age. Results by gender show that, boys and girls are equally more likely to receive the non-severe punishments, with severe physical punishment being more common among girls.

Table 11.4 (CP.4): Child discipline

Percentage of children aged 2-14 years according to method of disciplining the child, MICS, Meru South District, 2008

Characteristics	Percentage of children 2-14 years of age who experience:								
	Only non-violent discipline	Psycho-logical punishment	Minor physical punish ment	Severe physical punish ment	Any psycho-logical or physical punishment *	No discipline or punishment	Missing	Mother/care taker believes that the child needs to be physically punished	Number of children aged2-14 years**
Sex									
Male	19.8	62.8	59.4	15.1	79.7	0.4	0.0	89.2	672
Female	18.9	60.5	60.9	22.7	81.1	0.0	0.0	87.0	752
Age									
2-4 years	16.4	54.8	67.7	14.8	83.2	0.3	0.0	87.4	246
5-9 years	19.2	60.7	61.6	15.9	80.5	0.3	0.0	85.8	599
10-14 years	20.7	65.4	55.5	24.3	79.3	0.1	0.0	90.7	579
Mother's education									
None	33.9	55.9	50.0	8.4	66.1	0.0	0.0	80.1	197
Primary	18.0	63.9	59.8	22.6	81.7	0.2	0.0	91.5	867
Secondary+	14.5	59.0	66.6	16.6	85.3	0.2	0.0	84.0	359
Wealth index									
Low	21.0	64.7	58.2	26.6	78.2	0.8	0.0	88.6	255
Medium	16.8	65.3	63.6	22.5	83.2	0.0	0.0	92.5	686
High	22.1	54.7	56.4	10.3	77.7	0.2	0.0	81.5	484
Total	**19.3**	**61.6**	**60.2**	**19.1**	**80.5**	**0.2**	**0.0**	**88.1**	**1425**

*** 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

11.4 Early Marriage

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

In some parts of the world parents encourage the marriage of their daughters while they are still children in hopes that the marriage will benefit them both financially and socially. In actual fact, child marriage is a violation of human rights, compromising the development of girls and often

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

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

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

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

The distribution of early marriage by age, education and wealth index for Meru South district is presented in table 11.5(CP.5). Among women aged 15 -49, 12 per cent have never gone to school. Among the women aged 20-49, 13 per cent were married before age 18. Within this age category, only seven per cent with secondary school or higher education were married before age 18. Overall, nine per cent of women are currently married or in union. Differentials according to wealth index shows that a higher proportion (11 per cent) of women aged between 15-49 years from low wealth index households are currently married or in union compared to other wealth categories that have less than nine per cent.

Table 11.5 (CP.5): Early Marriage

Percentage of women aged 15-49 years in marriage or union before their 15th birthday, percentage of women aged 20-49 years in marriage or union before their 18th birthday, and percentage of women aged 15-19 years currently married or in union, MICS, Meru South District, 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 years married/in union **	Number of women aged 15-19 years	Number of women aged 15-49 currently married/in union
Age							
15-19	(*)	170	.	0	(*)	170	15
20-24	5.7	171	16.7	171	.	0	89
25-29	1.6	174	16.4	174	.	0	122
30-34	4.8	213	13.1	213	.	0	157
35-39	2.4	143	6.1	143	.	0	118
40-44	2.7	122	14.6	122	.	0	96
45-49	7.7	87	12.3	87	.	0	73
Education							
None	12.2	83	19.4	80	(*)	3	65
Primary	3.5	661	16.1	535	8.1	126	398
Secondary +	1.1	335	7.0	294	3.5	41	206
Wealth index							
Low	3.6	149	18.5	111	10.6	38	79
Medium	3.6	485	16.7	396	8.1	89	304
High	3.2	446	8.8	402	7.9	43	287
Total	**3.4**	**1079**	**13.4**	**909**	**8.6**	**170**	**669**

*** MICS Indicator 67**
**** MICS Indicator 68**
*** MICS Indicator 70
(*):Figures based on less than 25 un-weighted cases

Another indicator is the spousal age difference which is shown by the percentage of married/in union women with an age difference of 10 or more years between them and their current spouse. Analysis of spousal age difference is presented in table 11.6. About 41 per cent of the married or in union women aged between 15-24 years have partners who are within four years age difference, with this proportion being 38 per cent among women aged 20-24 years. Eight per cent of married or in union women aged 15-24 years in Meru South district have a partner who is 10 or more years older than them.

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, MICS, Meru South District, 2008

	Percentage of currently married/in union women whose husband or partner is:					
	0-4 years older	5-9 years older	10+ years older*	Husband' s age unknown	Total	Number of women currently married/ in union
Age						
15-19	(*)	(*)	(*)	(*)	100	15
20-24	38.0	52.9	8.3	0.8	100	89
Total	**40.5**	**50.2**	**8.0**	**1.3**	**100**	**104**

(*):Figures based on less than 25 un-weighted cases
( ): Figures based on 25 -49 un-weighted cases

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 be married and, sometimes, to women who are pregnant with their first child or who have just given birth. It is often performed by traditional practitioners, including midwives and barbers, without anaesthesia, using scissors, razor blades or broken glass.

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

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. Tables 11.7(CP.7) present the prevalence of FGM/C among women and the type and extent of the procedure as well as the woman's attitudes towards FGM/C.

Knowledge of FGM/C is nearly universal across all ages. About 27 per cent reported that they had undergone some form of FGM/C. The most common form of FGM/C is the one where flesh is removed (94 per cent). Differentials in the level of FGM/C were noticed with respect to educational level of the women and wealth index of the households. For example, 21 per cent of the illiterate women age 15-49 years had FGM/C compared with 14 per cent among those who had education up to secondary or higher. More or less similar pattern is observed with respect to the level of wealth index.

Among women who had the FGM/C, about five per cent had an extreme form of FGM/C, i.e., both the removal of flesh from the genital area and sewn closed. Also, a lower proportion of women from high wealth index households and those with a secondary or higher education level reported extreme form of FGM/C compared to those with no education and those from low wealth index households.

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 percentage who have had the extreme form of FGM/C (infibulation), MICS, Meru South district, 2008

Characteristics	Percent of women aged 15-49 years who have heard of FGM/C	Had any form of FGM/C *	Number of women aged 15-49 years	Percentage of women with FGM/C who: Had flesh removed	Were nicked	Were sewn closed	Form of FGM/C not determined	Total
Age								
15-19	92.3	12.1	170	86.8	13.2	0.0	0.0	100
20-24	98.6	25.9	171	85.9	1.0	13.0	0.0	100
25-29	100.0	21.0	174	90.5	1.7	6.3	1.5	100
30-34	100.0	30.7	213	96.1	0.0	3.2	0.7	100
35-39	97.3	26.6	143	98.2	0.0	1.8	0.0	100
40-44	97.4	39.8	122	100.0	0.0	0.0	0.0	100
45-49	100.0	44.8	87	91.8	0.0	8.2	0.0	100
Education								
None	96.9	21.1	83	94.0	0.0	6.0	0.0	100
Primary	97.1	34.4	661	92.7	1.7	5.2	0.4	100
Secondary +	99.7	14.2	335	97.5	0.0	2.5	0.0	100
FGM/C experience								
No FGM/C	97.1	0.0	787	0.0	0.0	0.0	0.0	0.0
Had FGM/C	100.0	100.0	292	93.6	1.3	4.8	0.3	100
Wealth index								
Low	97.2	47.7	149	94.9	0.0	5.1	0.0	100
Medium	97.8	30.4	485	92.9	0.0	6.5	0.7	100
High	98.3	16.6	446	93.7	5.1	1.2	0.0	100
Total	**97.9**	**27.1**	**1079**	**93.6**	**1.3**	**4.8**	**0.3**	**100**

Table 11.8 provides a summary of the attitudes towards FGM/C practices. Nearly all (95 per cent) of women believe that FGM/C should be discontinued. Slightly over one in every ten (12 percent) of those women who had FGM/C believes that the practice should continue. Although approval for discontinuation is highest among those from the high wealth index households, overall, approval for discontinuation of FGM practice is high even among women from low and high wealth index households.

Table 11.8 (CP.8): 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, MICS Meru South district , 2008

Characteristics	Percent of women aged 15-49 years who have heard of FGM/C	Percentage distribution of women who believe the practice of FGM/C should:			Total	Number of women aged 15-49 years who have heard of FGM/C
		Continue ***	Be discontinued	Depends on situation		
Age						
15-19	92.3	7.1	92.5	0.4	100	157
20-24	98.6	4.1	95.6	0.3	100	168
25-29	100.0	2.1	97.9	0.0	100	174
30-34	100.0	4.2	93.5	2.4	100	213
35-39	97.3	3.4	95.8	0.8	100	139
40-44	97.4	2.9	93.9	3.3	100	119
45-49	100.0	3.4	96.6	0.0	100	87
Education						
None	96.9	5.2	94.8	0.0	100	80
Primary	97.1	5.4	92.9	1.6	100	642
Secondary +	99.7	0.7	99.1	0.2	100	334
FGM/C experience						
No FGM/C	97.1	0.8	98.8	0.4	100	764
Had FGM/C	100.0	12.1	85.1	2.8	100	292
Wealth index						
Low	97.2	7.5	90.4	2.2	100	145
Medium	97.8	4.8	94.1	1.1	100	474
High	98.3	1.8	97.5	0.7	100	438
Total	**97.9**	**3.9**	**95.0**	**1.1**	**100**	**1056**

The proportion of women reporting a daughter who has undergone any form of FGM/C is low in this district. Results in Table 11.9 shows that only 3 per cent of women have a daughter who has had any form of FGM/C. Older women were more likely to report having a daughter who has undergone any form of FGM/C.

Table 11.9 (CP.9): 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 percentage by type of FGM/C of the daughters, MICS, Meru South District, 2008

Characteristics	Daughter had any form of FGM/C *	Number of women aged 15-49 years	Percentage of women whose daughters:	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						
15-24	0.0	79	(*)	(*)	.	0
25-34	0.6	233	(*)	(*)	(*)	1
35-49'	4.9	318	(*)	(*)	(*)	16
Education						
None	2.8	51	(*)	(*)	(*)	1
Primary	3.8	390	(*)	(*)	(*)	15
Secondary +	0.3	189	(*)	(*)	(*)	1
Wealth index						
Lowest	1.8	78	(*)	(*)	(*)	1
Middle	3.8	302	(*)	(*)	(*)	11
Upper	1.6	250	(*)	(*)	(*)	4
Total	**2.7**	**630**	**(*)**	**(*)**	**(*)**	**17**

MICS Indicator 65
(*): Figures based on 25 un-weighted cases.

11.6 Domestic Violence

A number of questions were asked of women age 15-49 years to assess their attitudes towards whether husbands are justified to hit or beat their wives/partners for a variety of scenarios. These questions were asked to have an indication of cultural beliefs that tend to be associated with the prevalence of violence against women by their husbands/partners. The main assumption here is that women that agree with the statements indicating that husbands/partners are justified to beat their wives/partners under the situations described in reality tend to be abused by their own husbands/partners. The responses to these questions can be found in Table 11.10 (CP.10).

In Meru South district, 58 per cent of the women aged 15-49 believe that a husband is justified in beating his wife/partner when she goes out without telling him or neglects children or argues with him or if she refuses sex with him or if she burns food. About 43 per cent of women believe that a man is justified to beat his wife if she neglects the children. There is a big disparity on perceptions according to those who are married/in union or previously married/in union and those who have never been married/in union. For those who have never been married/in union, 47 per cent agreed that a husband is justified to beat his wife for any of the reasons. The results by ages show that older women approve wife beating more than the young ones. Generally, women from high wealth index households are less likely to approve wife beating (54 per cent) compared to those from the low wealth index households (62 per cent).

Table 11.10 (CP.10): 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, MICS, Meru South District, 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	21.6	34.6	10.9	13	2.5	50.1	170
20-24	26.3	38.8	22.5	22.9	5.1	55.1	171
25-29	31.1	44	20.6	20.4	4.2	55.7	174
30-34	28.5	38.1	23.5	32.5	3.9	60.8	213
35-39	31.2	56.3	29.5	29.6	1	67.8	143
40-44	35.6	45.3	27.9	22.9	1.8	57.8	122
45-49	41.8	49.2	33.1	34.2	7.5	64.3	87
Marital/Union status							
Currently married/in union	33.2	47.5	28.2	28.3	3.7	62.6	669
Formerly married/in union	36.4	41.2	26.8	28.1	5.7	62.9	113
Never married/in union	19.4	32.5	9.8	14.9	2.5	46.7	297
Education							
None	20.6	41	17	20.3	0.6	44.6	83
Primary	34.7	47.1	27.2	26.1	5	65.7	661
Secondary +	22.2	34.4	16	22.9	1.6	46.9	335
Wealth index							
Low	34.8	42.9	31	23.7	4.6	62.2	149
Medium	32.9	45.1	25.4	24.7	5.7	61	485
High	24.6	40.1	17.6	24.8	0.9	54	446
Total	**29.7**	**42.7**	**23**	**24.6**	**3.6**	**58.3**	**1079**

* MICS Indicator 100

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

One indicator which is both an MDG and UNGASS indicator is the per cent of young women who have comprehensive and correct knowledge of HIV prevention and transmission. Women were asked whether they knew of the three main ways of HIV transmission; having only one faithful uninfected partner, using a condom every time one has sex, and abstaining from sex. The results are presented in Table 12.1 (HA.1).

It is encouraging that all women in Meru South district have heard of AIDS. However, the percentage of women who know of all three main ways of preventing HIV transmission stands at only 54 per cent. About 88 per cent of women mentioned having one faithful uninfected sex partner, 62 per cent mentioned using a condom every time while having sex, and 86 per cent mentioned abstaining from sex as the main ways of preventing HIV transmission. Knowledge of at least one way to preventing transmission of HIV among women in Meru South is near universal (98 per cent). As expected, the level of knowledge about preventing transmission of HIV increases with education and the level of household wealth index. About half of the younger women are aware of all the three HIV transmission modes.

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, MICS, Meru South District, 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	100	83.1	57.6	82.6	50.4	93.2	6.8	170
20-24	100	91	66.7	86	57.4	99	1	171
25-29	100	88.4	60.3	88.6	52.2	99.2	0.8	174
30-34	100	89.9	65.9	79.9	55.1	97.3	2.7	213
35-39	100	91.9	63	89.3	54.1	100	0	143
40-44	100	84.8	59.1	87.6	52.4	95.2	4.8	122
45-49	100	85	62.1	93.1	57.8	99.5	0.5	87
Education								
None	100	87	53.3	84.6	44.1	95.9	4.1	83
Primary	100	87	60.8	86.6	52.8	97.4	2.6	661
Secondary +	100	90.5	67.7	84.8	58.9	98.1	1.9	335
Wealth index								
Low	100	89.2	67.5	90.2	60	98.2	1.8	149
Medium	100	89.7	62.8	84.9	55.1	97.4	2.6	485
High	100	85.9	60.2	85.4	51	97.4	2.6	446
Total	**100**	**88.1**	**62.4**	**85.9**	**54**	**97.5**	**2.5**	**1079**

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

Identification of misconception about HIV/AIDS is important in the prevention of the disease. The results of identification of misconception about HIV/AIDS are presented in table 12.2 (HA.2). The indicator is based on the two most common and relevant misconceptions, that HIV can be transmitted by supernatural means and mosquito bites. The table also provides information on whether women know that HIV cannot be transmitted by sharing food, and that HIV can be transmitted by sharing needles.

Nearly 65 per cent of the women correctly rejected the two most common misconceptions. About 84 per cent knew that HIV cannot be transmitted by supernatural means, and 89 per cent of women knew that HIV cannot be transmitted by sharing food, while 97 per cent of women know that a healthy-looking person can be infected. It is evident that a higher proportion of educated women have correct knowledge about HIV/AIDS compared to those with no education or those educated up to primary level. The figures show that 58 per cent of the women who have no education rejected the two most common misconceptions and knew that a healthy-looking person can be infected while the corresponding figure was 76 per cent among those educated up to secondary level or higher.

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

Percentage of women aged 15-49 years who correctly identify misconceptions about HIV/AIDS, MICS, Meru South District, 2008

Characteristics	Percentage who know that:				Percentage who know that:		Number of women
	HIV cannot be transmitted by supernatural means	HIV cannot be transmitted by mosquito bites	A healthy looking person can be infected	Reject two most common misconceptions and know a healthy-looking person can be infected	HIV cannot be transmitted by sharing food	HIV can be transmitted by sharing needles	
Age							
15-19	92.6	81.8	96.7	73.8	86.7	99.7	170
20-24	88.6	79.1	96	69.4	91.3	96.7	171
25-29	86.9	75.7	97.2	69	93.5	97.7	174
30-34	85	78.4	95.6	67.7	85.6	94.9	213
35-39	86.9	76.1	95.3	66.6	92.1	99.8	143
40-44	68.6	73.3	99.2	51.9	89.2	97.8	122
45-49	67.7	53	98.2	41.8	83.5	98.6	87
Education							
None	81.5	72.1	96.1	58.2	87.5	95.2	83
Primary	81.3	71.5	95.8	60.1	88.8	98	661
Secondary +	90.3	84.9	98.5	76.8	90	97.6	335
Wealth index							
Low	77.6	67.3	97.5	58.9	85.8	99.6	149
Medium	82.2	76.9	94.7	63.5	87.7	97.7	485
High	88.3	77.2	98.5	69	91.6	96.9	446
Total	**84.1**	**75.7**	**96.7**	65.1	89.1	97.7	**1079**

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

Comprehensive knowledge of HIV/AIDS transmission includes knowledge of at least two ways of preventing HIV transmission and correctly identifying the three misconceptions about HIV transmission. Table 12.3 (HA.3) shows that comprehensive knowledge is still low with a rate of 41 per cent among women. The highest category is among those with at least secondary school level of education at 56 per cent while the lowest is among those aged between 44-49 years at 27 per cent. The summary of results in figure 12.1 shows that correct identification of three misconceptions about HIV transmission increases with increasing levels of household wealth index while knowledge of two ways of prevention of HIV transmission and comprehensive knowledge of HIV appears to decline with increasing levels of household wealth index.

Figure 12.1: Percentage of women who have comprehensive knowledge of HIV/AIDS transmission, Meru South, 2008

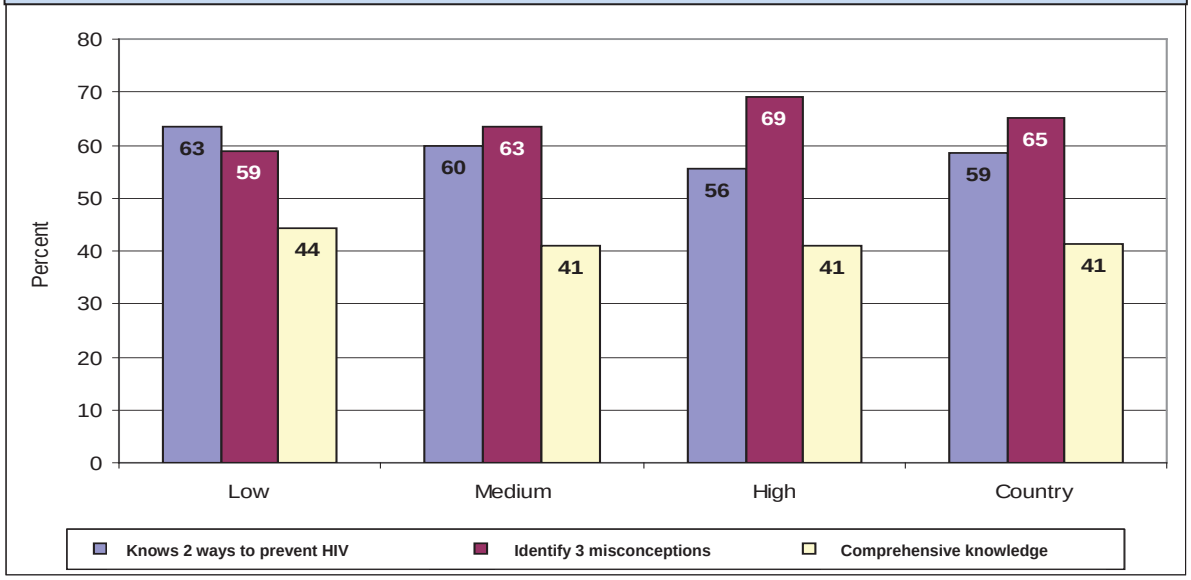


Table 12.3 (HA.3): Comprehensive knowledge of HIV/AIDS transmission

Percentage of women aged 15-49 years who have comprehensive knowledge of HIV/AIDS transmission, MICS, Meru South District, 2008

Characteristics	Knows 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	51.2	73.8	43.7	170
20-24	62.7	69.4	46.7	171
15-24	57	71.6	45.2	340
25-29	57.8	69	39.9	174
30-34	62.4	67.7	46.3	213
35-39	60.6	66.6	44.1	143
40-44	53.7	51.9	31.6	122
45-49	59.8	41.8	27	87
Education				
None	49.6	58.2	27.8	83
Primary	56.5	60.1	36	661
Secondary +	64.8	76.8	55.5	335
Wealth index				
Low	63.4	58.9	44.2	149
Medium	59.7	63.5	41.1	485
High	55.6	69	40.9	446
Total	**58.5**	**65.1**	**41.4**	**1079**

*** MICS Indicator 82; MDG Indicator 19b**

Knowledge of mother-to-child transmission of HIV is also an important first step for women to seek HIV testing when they are pregnant to avoid infection of the baby. Women should know that HIV can be transmitted during pregnancy, delivery, and through breastfeeding. The level of knowledge among women aged 15-49 years concerning mother-to-child transmission is presented in Table 12.4 (HA.4).

Almost all (99 per cent) women knew that HIV can be transmitted from mother to child. Contrary to expectations, differentials in the correct knowledge regarding mother-to-child transmission of HIV by level of education and wealth index are not large. The proportion of respondents who knew HIV can be transmitted at delivery was 80 per cent, followed by 52 per cent who know during pregnancy, and through breast milk at 97 per cent. However, less than half (46 per cent) had knowledge of all three ways of mother-to-child transmission.

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, MICS, Meru South District, 2008

		Percentage who knew HIV can be transmitted:					
Characteristics	Know HIV can be transmitted from mother to child	During pregnancy	At delivery	Through breast milk	All three ways *	Did not know any specific way	Number of women
Age							
15-19	98.2	42.1	83.2	96.1	39.2	1.8	170
20-24	99.7	50.2	73.8	98.4	42.6	0.3	171
25-29	98.2	48.0	73.6	95.7	41.2	1.8	174
30-34	98.5	51.4	81.2	96.4	46.4	1.5	213
35-39	100.0	57.3	85.1	100.0	53.3	0.0	143
40-44	100.0	63.7	82.8	97.5	53.9	0.0	122
45-49	97.6	56.5	85.3	94.6	54.4	2.4	87
Education							
None	100.0	72.4	93.2	94.7	70.9	0.0	83
Primary	98.3	51.3	77.9	96.6	44.9	1.7	661
Secondary +	99.9	47.6	81.4	98.5	42.8	0.1	335
Wealth index							
Low	100.0	50.4	72.4	99.7	44.2	0.0	149
Medium	98.4	46.8	75.3	97.3	40.8	1.6	485
High	99.1	57.7	88	95.8	52.8	0.9	446
Total	**98.9**	**51.8**	**80.1**	**97**	**46.2**	**1.1**	**1079**

*** MICS Indicator 89**

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 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 attitude of women towards people living with HIV/AIDS. Among those who have heard about HIV/AIDS, 39 per cent agreed with the statement that if a family member is sick with HIV/AIDS, they would like to keep it a secret and that a teacher should not be allowed to work if he/she has HIV/AIDS. Thirty six per cent will not buy food from a person who has HIV/AIDS. Overall, over two thirds (70 per cent) agree with at least one of the discriminatory statements mentioned above and 29 per cent agree with none of the discriminatory statements.

Differentials by education level show that nearly half (49 per cent) of those without education agree with at least one discriminatory statement as opposed to less than 30 per cent for those with other education categories.

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, MICS, Meru South District, 2008

Characteristics	Percentage of women who:						Number of women who have heard of AIDS
	Would not care for a family member who was sick with AIDS	If a family member had HIV would want to keep it a secret	Believe that a female teacher with HIV should not be allowed to work	Would not buy fresh vegetables from a person with HIV/AIDS	Agree with at least one discriminatory statement	Agree with none of the discriminatory statements*	
Age							
15-19	5.5	49.5	43.6	47.5	78.7	21.3	170
20-24	1.9	37.6	33.6	34.4	66.3	33.7	171
25-29	0.4	35.4	43.2	38.1	71.2	28.8	174
30-34	0.8	37	35.3	28.8	64.2	35.8	213
35-39	4.8	30.4	36.5	35.7	69.8	30.2	143
40-44	2.4	39.1	41.2	36.9	71.8	28.2	122
45-49	1.3	49.3	43.8	30.3	78.8	21.2	87
Education							
None	1.6	37.4	23.1	21.1	48.6	51.4	83
Primary	2.1	38.6	43.8	39.9	73.7	26.3	661
Secondary +	3.1	40.7	33.9	32.2	70.3	29.7	335
Wealth index							
Low	2.9	31.4	48.1	39.7	72.9	27.1	149
Medium	2.8	38.4	39.9	39.5	71.8	28.2	485
High	1.8	42.5	35.3	31.2	68.9	31.1	446
Total	**2.4**	**39.2**	**39.1**	**36.1**	**70.7**	**29.3**	**1079**

* MICS Indicator 86

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

Another important indicator is the knowledge of where to be tested for HIV and use of such services. Questions related to knowledge of a facility for HIV testing and whether women have ever been tested is presented in Table 12.6 (HA.6).

Nearly all (98 per cent) of the women in Meru South district knew where to be tested while 60 per cent had actually been tested. Among these, a large proportion (99 per cent) had been informed of their results. Women in the age group 15-19 years who were tested (22 per cent) had all been told their results.

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, percentage of women who had been tested and, of those tested the percentage who had been told the result, MICS, Meru South District, 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	93.8	21.9	170	(100)	37
20-24	99.7	74.5	171	100	127
25-29	100	84.2	174	97.7	146
30-34	99.7	70.1	213	100	149
35-39	100	69.9	143	99.4	100
40-44	97.9	51.3	122	100	63
45-49	96.3	25.8	87	(*)	22
Education					
None	100	66.2	83	100	55
Primary	97.9	59.6	661	99	394
Secondary +	98.9	58.5	335	100	196
Wealth index					
Low	96.1	65.8	149	100	98
Medium	97.8	55.7	485	99.8	270
High	99.8	62.2	446	98.8	277
Total	**98.4**	**59.8**	**1079**	**99.4**	**645**

*** MICS Indicator 87**
** MICS Indicator 88
(*):Figures based on less than 25 unweighted cases
(): Figures based on 25 -49 unweighted cases

The results for women who gave birth within the two years preceding the survey and had received counselling and HIV testing during antenatal care is summarised in Table 12.7 (HA.7). It is common for mothers in Meru South district to receive any antenatal care from a health professional, although the rate is a little lower among those with no education at 93 per cent. About 88 per cent were provided information about HIV prevention and tested for HIV during antenatal care visits. Among those tested for HIV, 95 per cent received the test results.

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, MICS, Meru South District, 2008

Characteristics	Percentage of women who: Received antenatal care from a health 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 two years preceding the survey
Age					
15-19	(96.7)	(75)	(87.9)	(87.9)	13
20-24	98.6	85.2	95.5	95.5	65
25-29	96.4	90.5	96	95	72
30-34	98.9	88.1	95.3	95.3	52
35-49	98.5	93.6	97.2	97.2	49
Education					
None	(93)	(73.7)	(91.3)	(91.3)	17
Primary	97.6	86.5	95	94.6	168
Secondary +	100	97.1	98	98	66
Wealth index					
Low	99.2	85.6	93	93	55
Medium	96.4	87.6	94.2	93.6	111
High	99.1	91.3	98.7	98.7	86
Total	**97.9**	**88.4**	**95.5**	**95.2**	**252**

*** MICS Indicator 90**
**** MICS Indicator 91**
( ): Figures based on un-weighted figures 25 -49

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 those living in vulnerable households may be at an increased risk of neglect or exploitation if the parents are not available to assist them. Monitoring the variations in different outcomes for orphans and vulnerable children and comparing them to their peers gives a measure of how well communities and governments are responding to their needs.

To monitor these variations, a measurable definition of orphaned and vulnerable children was created. The UNAIDS Monitoring and Evaluation Reference Group developed a proxy definition of children affected by adult morbidity and mortality. This definition intended to capture 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, if either parent is chronically ill, or if an adult (aged between 18-59 years) in the household either died (after being chronically ill) or was chronically ill in the year prior to the survey. The frequency of children living with neither parent, mother only, and father only is presented in Table 12.8 (HA.10). Only 59 per cent of children aged 0-17 years in Meru South district live with both parents. Sixteen per cent of children live with only mother though the father is alive. Seventeen per cent of females live with their mothers only though the fathers are alive. The proportions are nearly equal in the cases of those living with father only while the mother is alive.

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

Percentage distribution of children aged 0-17 years according to living arrangements, percentage of children aged 0-17 years in households not living with a biological parent and percentage of children who are orphans, MICS, Meru South District,2008

		Living with neither parent				Living with mother only		Living with father only						
Characteristics	Living with both parents	Only father alive	Only mother alive	Both are alive	Both are dead	Father alive	Father dead	Mother alive	Mother dead	Impossible to determine	Total	Not living with a biological parent *	One or both parents dead **	Number of children
Sex														
Male	59.8	0.1	0.8	14.2	0.7	15.4	2.7	2.7	1.1	2.5	100	15.7	5.3	960
Female	58.4	0.5	0.8	13.6	0.5	17.1	3.8	2.6	1.0	1.7	100	15.4	7.2	969
Age														
0-4 years	67.1	0.0	0.0	7.4	0.0	21.3	0.5	2.1	0.1	1.4	100	7.4	0.6	488
5-9 years	59.9	0.1	0.4	17.2	0.0	16.0	1.9	2.1	1.1	1.4	100	17.7	3.9	593
10-14 years	53.7	0.4	0.9	14.8	1.5	15.5	5.3	3.8	1.0	3.1	100	17.6	9.6	590
15-17 years	54.7	1.0	2.6	16.6	1.0	8.8	7.1	2.3	3.0	2.8	100	21.2	15	258
Wealth index														
Low	53.9	0.1	0.0	17.9	0.6	18.0	4.9	2.3	1.7	0.7	100	18.6	7.2	353
Medium	61.9	0.5	1.3	12.4	0.2	14.9	2.6	2.5	1.0	2.6	100	14.4	6.1	934
High	57.9	0.1	0.4	13.9	1.2	17.3	3.3	3	0.8	2.1	100	15.5	6.0	643
Total	**59.1**	**0.3**	**0.8**	**13.9**	**0.6**	**16.2**	**3.3**	**2.6**	**1.1**	**2.1**	**100**	**15.5**	**6.3**	**1930**

*** MICS Indicator 78**
**** MICS Indicator 75**
The denominator in this table is children age 0-17 years enumerated in the household listing.

Table 12.9 shows the percentage of orphaned and vulnerable children due to AIDS for those aged between 0-17 years. The proportion of orphans and vulnerable children is highest among children aged between 15-17 years (17 per cent) and lowest among the 0-4 year age group. The proportion of households with children, and reported having chronically ill parents or had an adult death in their household were very few.

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

Percentage of children aged 0-17 years who are orphaned or vulnerable due to AIDS, MICS, Meru South District, 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	0.0	1.8	0.5	2.4	5.3	6.3	960
Female	0.4	0.5	0.8	1.8	7.2	8.4	969
Age							
0-4 years	0.1	0.7	0.7	1.4	0.6	2.0	488
5-9 years	0.0	0.8	0.2	1.1	3.9	4.1	593
10-14 years	0.3	1.7	0.9	2.9	9.6	10.9	590
15-17 years	0.8	1.7	1.1	3.6	15	16.8	258
Wealth index							
Low	0.6	2.0	0.3	2.9	7.2	8.5	353
Medium	0.0	0.9	1.0	1.9	6.1	7.3	934
High	0.4	1.0	0.4	1.8	6.0	6.8	643
Total	**0.2**	**1.2**	**0.7**	**2.1**	**6.3**	**7.3**	**1930**

*** 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 who 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

School attendance of orphaned and vulnerable children aged between 10-14 years in Meru South district is shown in table 12.10 (HA.12). All children whose parents are dead are currently attending school. The school attendance is nearly universal among children aged 10-14 years who have not lost a parent and who live with at least one parent. One of the measures for the assessment of the status of orphaned and vulnerable children relative to their peers looks at the school attendance of children aged 10-14 for children who have lost both parents (double orphans) versus children whose parents are alive (and who live with at least one of these parents). If children whose parents have died do not have the same access to school as their peers, then families and schools are not ensuring that these children's rights are being met. In Meru South district, a double orphan to non orphans' attendance ratio is 1 while the OVCs versus non OVCs school attendance stands at 0.95.

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

School attendance of children aged 10-14 years by orphan hood and vulnerability due to AIDS, MICS, Meru South District, 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 due to AIDS	School attendance of children who are orphaned or vulnerable due to AIDS	Percentage of children who arenot orphans or vulnerable due to AIDS	School attendance of children who are not orphans or vulnerable due to AIDS	OVC vs non-OVC school attendance ratio	Total number of children aged 10-14 years
Sex											
Male	1.5	100	71.7	100	1.0	8.5	98.1	91.5	99.1	0.99	270
Female	1.5	100	74.1	99	1.01	12.8	91.3	87.2	99.0	0.92	321
Wealth index											
Low	2.0	100	66.4	100	1.0	16.6	92.4	83.4	97.6	0.95	105
Medium	0.7	100	74.3	99.8	1.0	9.8	98.4	90.2	99.8	0.99	273
High	2.3	100	74.6	98.8	1.01	9.5	88.8	90.5	98.8	0.9	212
Total	**1.5**	**100**	**73**	**99.5**	**1.01**	**10.9**	**93.8**	**89.1**	**99.1**	**0.95**	**590**

*** MICS Indicator 77; MDG Indicator 20**

A double orphan is a child whose mother and father have both died.

Orphaned and vulnerable children (OVC) 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 children who are orphaned or vulnerable. Community-based organizations and governments need to ensure that families are supported to care for these children. The level and types of support provided to households caring for children orphaned and vulnerable due to AIDS is presented in Table 12.11 (HA.13).

Overall, 58 per cent of the orphaned and vulnerable children of age 0-17 receive any kind of support. The proportion of orphans receiving any form of support is highest among those from the low wealth index households at 77 per cent. About one in two (51 per cent) of the orphaned or vulnerable children received educational support within the 12 months prior to survey, eight per cent received social/material support within the 3 months preceding the survey, 17 per cent received emotional or psychological support within the 3 months preceding the survey. Support to OVCs favours males at 63 per cent. Differentials across the ages show that young OVCs are less likely to receive any support compared to older ages. This could be attributed to the fact that much of the support is required when children grow older or progress in school and the associated social/material support.

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, MICS, Meru South District, 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 support at all	Number of children orphaned or vulnerable aged 0-17 years
Sex								
Male	4.9	22.4	16.1	54.5	62.8	0.0	37.2	60
Female	0.9	12.6	1.3	48.0	55.1	0.0	44.9	81
Age								
0-4 years	(*)	(*)	(*)	(*)	(*)	(*)	(*)	10
5-9 years	(1.1)	(27.8)	(2.8)	(46.4)	(58.0)	(0.0)	(42.0)	24
10-14 years	(0.7)	(10.3)	(4.4)	(52.7)	(56.9)	(0.0)	(43.1)	64
15-17 years	(6.9)	(18.3)	(11.4)	(61.7)	(68.3)	(0.0)	(31.7)	43
Wealth index								
Lowest	(0.0)	(14.3)	(5.2)	(71.3)	(76.5)	(.00)	(23.5)	30
Middle	5.1	28	13.7	52.6	65.8	0.0	34.2	68
Upper	(0.6)	(0.9)	(0)	(33.7)	(34.4)	(0)	(65.6)	44
Total	**2.6**	**16.7**	**7.7**	**50.8**	**58.4**	**0.0**	**41.6**	**142**

*** 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.

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

(): Figures based on 25 -49 un-weighted cases

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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 Meru South 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 Meru South 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 per cent. 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 per cent, 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 Embu, 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[6] 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 n_1 and n_2, where $n_1$is the total number of households in stratum-1 (i.e., with a child below 3 years) and n_2 is the total number of households in stratum-2 (i.e., without a child below 3 years) (n_1 + n_2 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.

[6] 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.

Calculation of Sample Weights

The Meru South 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:

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

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 Meru South 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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Mr. Christopher Omolo, KNBS

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Appendix C: Estimates of Sampling Errors

The sample of respondents selected in the Meru South 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 un-weighted 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	Un-weighted Count	Confidence limits	
Iodized salt consumption	0.9588	0.00826	0.009	1.967	1.403	646	1,141	0.942	0.975
Child discipline	0.7907	0.02790	0.035	4.030	2.007	436	858	0.735	0.846

	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Population Size	Un-weighted Count	Confidence limits	
Use of improved drinking water sources	0.4557	0.03059	0.067	18.451	4.296	2,501	4,892	0.395	0.517
Use of improved sanitation facilities	0.1327	0.01924	0.145	15.730	3.966	2,501	4,892	0.094	0.171
Net primary school attendance rate	0.9017	0.01362	0.015	1.939	1.392	521	928	0.874	0.929
Net secondary school attendance rate	0.3003	0.03659	0.122	2.077	1.441	211	327	0.227	0.373
Primary completion rate	0.0233	0.00413	0.177	0.068	0.261	63	92	0.015	0.032
Child labour	0.0735	0.01581	0.215	4.433	2.105	670	1,209	0.042	0.105
Prevalence of orphans	0.0627	0.00939	0.150	3.526	1.878	1,092	2,352	0.044	0.081
Prevalence of vulnerable children	0.0206	0.00469	0.228	2.562	1.601	1,092	2,352	0.011	0.030

	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Population Size	Un-weighted Count	Confidence limits	
Skilled attendant at delivery	0.8092	0.02203	0.027	1.430	1.196	124	456	0.765	0.853
Antenatal care	0.9792	0.00598	0.006	0.797	0.893	124	456	0.967	0.991
Contraceptive prevalence	0.7297	0.02422	0.033	2.183	1.477	329	735	0.681	0.778
Adult literacy	0.8731	0.02402	0.028	1.984	1.409	167	382	0.825	0.921
Prevalence of FGM/C	0.2709	0.02055	0.076	2.306	1.518	530	1,079	0.230	0.312
Marriage before age 18	0.1670	0.04050	0.242	2.817	1.678	84	240	0.086	0.248
Comprehensive knowledge about HIV prevention among young people	0.4144	0.02968	0.072	3.914	1.978	530	1,079	0.355	0.474
Attitudes towards people with HIV/AIDS	0.2925	0.02441	0.083	3.105	1.762	530	1,079	0.244	0.341
Women who have been tested for HIV	0.5979	0.01951	0.033	1.708	1.307	530	1,079	0.559	0.637
Knowledge of mother-to-child transmission of HIV	0.4623	0.02279	0.049	2.253	1.501	530	1,079	0.417	0.508

	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Population Size	Un-weighted Count	Confidence limits	
Underweight prevalence	0.2402	0.01387	0.058	0.934	0.966	383	887	0.212	0.268
Tuberculosis immunization coverage	0.9965	0.00346	0.003	0.806	0.898	89	236	0.990	1.003
Polio immunization coverage	0.8998	0.01409	0.016	0.517	0.719	89	236	0.872	0.928
Immunization coverage for DPT	0.9744	0.01307	0.013	1.606	1.267	89	236	0.948	1.000
Measles immunization coverage	0.9378	0.01656	0.018	1.105	1.051	89	236	0.905	0.971
Fully immunized children	0.8466	0.02137	0.025	0.826	0.909	89	236	0.804	0.889
Acute respiratory infection in last two weeks	0.0875	0.01297	0.148	1.927	1.388	393	916	0.062	0.113
Antibiotic treatment of suspected pneumonia	0.3063	0.04411	0.144	0.778	0.882	34	86	0.218	0.395
Diarrhoea in last two weeks	0.0998	0.02007	0.201	4.102	2.025	393	916	0.060	0.140
Received ORT or increased fluids and continued feeding	0.1938	0.05072	0.262	1.399	1.183	39	86	0.092	0.295
Fever in last two weeks	0.2104	0.02159	0.103	2.568	1.602	393	916	0.167	0.254
Anti-malarial treatment	0.5620	0.07088	0.126	3.551	1.884	83	175	0.420	0.704
Support for learning	0.5334	0.04147	0.078	6.321	2.514	393	916	0.450	0.616
Birth registration	0.7576	0.02116	0.028	2.230	1.493	393	916	0.715	0.800

Appendix D: Data Quality Tables

Table DQ.2: Age distribution of eligible and interviewed women, Meru South District

		Household population of women age 10-54	Interviewed women age 15-49		
		Number	Number	Percent	Percentage of eligible women interviewed
Age	10-14	321	.	.	.
	15-19	177	138	15.7	77.7
	20-24	166	143	16.3	86.1
	25-29	146	141	16.1	96.5
	30-34	172	172	19.6	99.7
	35-39	118	115	13.1	97.9
	40-44	99	99	11.3	99.6
	45-49	72	70	7.9	96.9
	50-54	142	.	.	.
	15-49	950	877	100.0	92.3

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-birth weight 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

INDICATOR		NUMERATOR	DENOMINATOR
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 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

INDICATOR		NUMERATOR	DENOMINATOR
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
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	Anti-malarial 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 anti-malarial 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

INDICATOR		NUMERATOR	DENOMINATOR
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 learning and school readiness in the past 3 days	Total number of children aged 0-59 months
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

INDICATOR		NUMERATOR	DENOMINATOR
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
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

INDICATOR		NUMERATOR	DENOMINATOR
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 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

INDICATOR		NUMERATOR	DENOMINATOR
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 24months surveyed
91	Testing coverage for the prevention of mother-to-child transmission of HIV	Number of women that gave birth in the previous 24months 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
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 anti-malarials	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 anti-malarials.	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

INDICATOR		NUMERATOR	DENOMINATOR
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		No	No. of hours	Yes		No	Yes	No	No. of hours	Yes	No	No. of hours
		Paid	Unpaid			Paid	Unpaid							
		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**		



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	Skip
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, Meru South District

Multiple Indicator Cluster Survey

2008