Kenya
Eastern Province
Mwingi 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
Mwingi District



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Multiple Indicator Cluster Survey 2008

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

This survey was conducted as part of the third round of MICS surveys (MICS3), carried out around the world in more than 50 countries, during 2005-2006. The first two rounds of MICS surveys were conducted in 1995 and the year 2000. Survey tools are 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 www.childinfo.org.

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List of Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
BCG	Bacillus Calmette Guerin (Tuberculosis)
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 Immuno-deficiency Virus
IDD	Iodine Deficiency Disorders
ITN	Insecticide Treated Net
IUD	Intra-Uterine Device
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
ORS	Oral Rehydration Salts
ORT	Oral Rehydration treatment
OVC	Orphans and Vulnerable Children
PPM	Parts Per Million
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
WFFC	World Fit for Children
WHO	World Health Organization

Foreword

The Mwingi district Multiple Indicator Cluster Survey (MICS) 2008 is one of the largest representative sample surveys conducted in the district. The survey covered 1,152 households selected using appropriate statistical procedures.

The objective of the district level MICS was to provide estimates relating to the well-being of children and women at the district level, to enable policymakers, planners, researchers and program managers to take actions based on credible evidence. The Mwingi district Multiple Indicator Cluster Survey collected information on specific sectors such as reproductive health, child mortality, child health, nutrition, child protection, water and sanitation, education, and HIV/AIDS and orphans and vulnerable children.

The results indicate that infant and child mortality in Mwingi district is high, and that there is a high proportion of under-weight children. It is also worth noting that the proportion of children aged 0-5 years who are exclusively breastfed is one of the lowest in the country.

I wish to acknowledge the efforts of various organizations and individuals who contributed immensely towards the success of this 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 UNICEF is also acknowledged for successfully completing the survey and making the results available.

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



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Executive Summary

The Mwingi 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 1,152 households was collected using structured questionnaires. This 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, i.e., households with a child below 3 years at the time of the household listing, and those with no children below 3 years.[1] The stratification at EA level was done to increase the number of children and women who have given birth in the recent years in order to reduce the standard errors of child and women based estimates. The data were collected by two teams each comprising of five members; one supervisor, one editor/measurer and three interviewers. The survey was implemented by the Kenya National Bureau of Statistics (KNBS), with support from UNICEF Kenya. A 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 for Mwingi district is 64 deaths per 1,000 live births and infant mortality rate is 44 deaths per 1,000 live births.

Nutritional Status and Breastfeeding

A little more than one quarter (28 per cent) of children aged 6-59 months in Mwingi district are either severely or moderately underweight. The proportion of stunted children was much higher at about 39 per cent. Sixty nine per cent of the children are timely breastfed (given breast milk within an hour of birth), while 32 per cent of children age 0-5 months are exclusively breastfed. The proportion of children who are weighed at birth is estimated at 61 per cent. About 89 per cent of the households in the district are using iodized salt for cooking.

Immunization

Only 61 per cent of children age 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 was reportedly given to about 92 per cent of children aged 12-23 months while the measles vaccine was received by 72 per cent of children. This indicates a high dropout rate in the coverage of measles compared to that of BCG. Close to 60 per cent of mothers who had given birth during the two years preceding the survey reportedly received the tetanus toxoid (TT) injection.

Care during Illness

Only 38 per cent of the children with diarrhoea during the two weeks preceding the survey received oral re-hydration therapy with seven per cent reporting home management of diarrhoea. Among children who had suspected pneumonia, 59 per cent sought treatment, while 34 per cent were given antibiotic treatment.

Malaria Prevention

In Mwingi district, about 55 per cent of the households have at least one insecticide treated mosquito net, while only 31 per cent of children below five years sleep under a treated mosquito net. Only 14 per cent of children under five with fever during the two weeks preceding the survey were given an anti-malarial treatment. About half of the women who had given birth during the two years preceding the survey reported 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

Approximately 21 per cent of the Mwingi district population uses drinking water from an improved source, while one third of all households reportedly treat the water before drinking. Only 19 per cent of the population uses improved sanitation facilities while in about 40 per cent of the cases, children's stool is disposed off safely.

Reproductive Health

The total fertility rate in Mwingi District for the three years preceding the survey is estimated at 5.4 children per woman. Teenage pregnancy (women aged 15-19) is estimated at 14 per cent. More than 90 per cent of mothers who gave birth in the past two years benefited from ante-natal care. However, only 38 per cent of the mothers gave birth in a health facility. Slightly over 30 per cent of women aged 20-49 years were married before reaching age 18 years, while 11 per cent of women aged 15-19 years are currently married or in union.

Education

In Mwingi district, only 44 per cent of the children of primary school entry age are actually attending primary school. The net primary school attendance rate stands at about 86 per cent whereas that of secondary school is only 13 per cent. This indicates a high discontinuation rate from primary to secondary school. Female adult literacy rate in the district is estimated at 84 per cent.

Child Protection

Only 45 per cent of children under-five in Mwingi district have had their births registered. Meanwhile, one in five (almost 20 per cent) children aged 5-14 years are engaged in child labour activities. A very high proportion of children aged 2-14 years (94 per cent) experienced some form of psychological or physical punishment in the one month prior to the survey.

HIV and AIDS

About 40 per cent of young women aged 15-24 years in Mwingi district have comprehensive knowledge about HIV/AIDS prevention. Almost all women in Mwingi district (98 per cent) have knowledge about mother-to-child transmission of HIV. However, less than half (45.9 per cent) of all women aged 15-49 years have been tested for HIV. About 59 per cent of women who delivered a child in the two years preceding the survey received counselling on prevention of mother-to-child transmission of HIV, while 68 per cent had an HIV test.

Orphans and Vulnerable Children

One out of ten children below 18 years (10 per cent) in Mwingi district is an orphan, while up to seven per cent are considered as vulnerable children. Slightly more than seven per cent of children below 18 years were not living with either of their biological parents.

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

Almost all women aged 15-49 years in Mwingi district (about 99 per cent) have heard about female genital mutilation (FGM/C), while 67 per cent have undergone some form of FGM/C, and six per cent have experienced some extreme form or other of FGM/C. Only 14 per cent of women who have heard of FGM/C believe that the practice should be continued.

Up to 57 per cent of women in Mwingi district believe that husbands are justified to beat their wives for various reasons including going out without seeking permission from him, neglect of children, arguing with the husband, refusal to have sex with him, or burning food while cooking.

Summary of Findings

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

Topic	MICS Indicator Number	MDG Indicator Number	Indicator	Value & Unit	
CHILD MORTALITY					
Child mortality	1	13	Under-five mortality rate	64	per thousand live births
	2	14	Infant mortality rate	44	per thousand live births
NUTRITION					
Nutritional status			Underweight prevalence (below -2 SD)	28.2	per cent
			Stunting prevalence (below -2 SD)	38.7	per cent
			Wasting prevalence (below -2 SD)	4.3	per cent
Breastfeeding	45		Timely initiation of breastfeeding	69.1	per cent
	15		Exclusive breastfeeding rate	32.1	per cent
	16		Continued breastfeeding rate		
			at 12-15 months	90.6	per cent
			at 20-23 months	53.9	per cent
	17		Timely complementary feeding rate	65.3	per cent
	18		Frequency of complementary feeding	76.0	per cent
	19		Adequately fed infants	50.1	per cent
Salt iodization	41		Iodized salt consumption	84.4	per cent
Vitamin A	42		Vitamin A supplementation (under-fives)	65.1	per cent
	43		Vitamin A supplementation (post-partum mothers)	29.1	per cent
Low birth weight	9		Low birth weight infants	7.2	per cent
	10		Infants weighed at birth	60.8	per cent
CHILD HEALTH					
Immunization	25		Tuberculosis immunization coverage (by 12 months)	91.5	per cent
	26		Polio immunization coverage (by 12 months)	85.8	per cent
	27		DPT immunization coverage (by 12 months)	86.7	per cent
	28	15	Measles immunization coverage (by 12 months)	71.7	per cent
	31		Fully immunized children (by 12 months)	61.3	per cent
Tetanus toxoid	32		Neonatal tetanus protection	67.6	per cent
Care of illness	33		Use of oral re-hydration therapy (ORT)	38.1	per cent
	34		Home management of diarrhoea	7.1	per cent
	35		Received ORT or increased fluids, and continued feeding	19.3	per cent
	23		Care seeking for suspected pneumonia	59.0	per cent
	22		Antibiotic treatment of suspected pneumonia	34.4	per cent
Solid fuel use	24	29	Solid fuels	97.3	per cent
Malaria	36		Households having insecticide-treated nets (ITNs)	45.5	per cent
	37	22	Under-fives sleeping under insecticide-treated nets	27.0	per cent
	38		Under-fives sleeping under mosquito nets	34.3	per cent
	39	22	Anti-malarial treatment (under-fives)	14.3	per cent
	40		Intermittent preventive malaria treatment (pregnant women)	47.7	per cent
ENVIRONMENT					
Water and Sanitation	11	30	Use of improved drinking water sources	18.6	per cent
	13		Water treatment	33.3	per cent
	12	31	Use of improved sanitation facilities	14.7	per cent
	14		Disposal of child's faeces	39.8	per cent

Topic	MICS Indicator Number	MDG Indicator Number	Indicator	Value & Unit	
REPRODUCTIVE HEALTH					
Contraception and unmet need	21	19c	Contraceptive prevalence	46.8	per cent
	98		Unmet need for family planning	6.8	per cent
Maternal and newborn health	20		Antenatal care	94.1	per cent
	44		Content of antenatal care		
			Blood test taken	75.3	per cent
			Blood pressure measured	73.2	per cent
			Urine specimen taken	48.0	per cent
			Weight measured	87.0	per cent
	4	17	Skilled attendant at delivery	38.7	per cent
	5		Institutional deliveries	37.5	per cent
			Total fertility rate	5.4	Rate
EDUCATION					
Education	52		Pre-school attendance	30.4	per cent
	53		School readiness	87.4	per cent
	54		Net intake rate in primary education	44.1	per cent
	55	6	Net primary school attendance rate	85.6	per cent
	56		Net secondary school attendance rate	12.7	per cent
			Adult literacy rate (female)	84.4	Per cent
CHILD PROTECTION					
Birth registration	62		Birth registration	44.6	per cent
Child labour	71		Child labour	19.6	per cent
	72		Labourer students	96.0	per cent
	73		Student labourers	20.3	per cent
Child discipline	74		Any psychological/physical punishment	93.9	per cent
Early marriage and polygyny	67		Marriage before age 15	6.1	per cent
			Marriage before age 18	30.7	per cent
	68		Young women aged 15-19 currently married/in union	10.5	per cent
Female genital mutilation/ Cutting	66		Approval for FGM/C	13.6	per cent
	63		Prevalence of female genital mutilation/cutting (FGM/C)	66.7	per cent
	64		Prevalence of extreme form of FGM/C	6.3	per cent
	65		FGM/C prevalence among daughters	21.1	per cent
Domestic violence	100		Attitudes towards domestic violence	56.5	per cent
HIV/AIDS, SEXUAL BEHAVIOUR, AND ORPHANED AND VULNERABLE CHILDREN					
HIV/AIDS knowledge and attitudes	82	19b	Comprehensive knowledge about HIV prevention among young people	23.9	per cent
	89		Knowledge of mother- to-child transmission of HIV	98.0	per cent
	86		Attitude towards people with HIV/AIDS	11.5	per cent
	87		Women who know where to be tested for HIV	89.8	per cent
	88		Women who have been tested for HIV	45.9	per cent
	90		Counselling coverage for the prevention of mother-to-child transmission of HIV	58.8	per cent
	91		Testing coverage for the prevention of mother-to-child transmission of HIV	68.1	per cent
Support to orphaned and vulnerable children	75		Prevalence of orphans	10.3	per cent
	78		Children's living arrangements	7.4	per cent
	76		Prevalence of vulnerable children	6.6	per cent
	77	20	School attendance of orphans versus non-orphans	0.98	Ratio
	81		External support to children orphaned and made vulnerable by HIV/AIDS	36.2	per cent

Introduction 1

1.1 Background

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

In signing these international agreements, governments committed themselves to improving conditions for their children and to monitoring progress towards that undertaking. UNICEF was assigned a supporting role in this task (see box 1 below).

BOX 1: A Commitment to Action:
National and International Reporting Responsibilities

Member country governments that signed the Millennium Declaration and the World Fit for Children Declaration and Plan of Action committed themselves to monitoring progress towards the goals and objectives contained in these international agreements:

"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 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 local community capacity for monitoring, assessment and planning." (**A World Fit for Children**, paragraph 60.)

"…We will conduct periodic reviews, at 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 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 entire people and particularly that of women and children who are more vulnerable to social and economic hardships. With regard to children, the Government of Kenya (GoK) formulated the National Plan of Action (NPA) for children in 1992 soon after the World Summit for Children (WSC) which was held in 1990. The main objective of this programme was to identify issues affecting children and to design appropriate 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. For Kenya, the call for consolidated

and accelerated efforts in the overall development of the country has more recently been expressed in the *Kenya Vision 2030* document.

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

A sizeable component of the GOK/UNICEF programme is devoted to the production of high quality and sufficiently disaggregated data for effective policy formulation and programme implementation.

This report presents the results from MICS 2008 in Mwingi district of Eastern Province, Kenya.

1.2 Survey Objectives

The 2008 Mwingi district Multiple Indicator Cluster Survey had its primary objectives as:

- To provide up-to-date information for assessing the situation of children and women in Mwingi district;
- To furnish essential data required for monitoring progress toward the goals established in the Millennium Declaration, the goals of A World Fit For Children (WFFC), other internationally agreed goals, and the *Kenya Vision 2030*, as a basis for future action;
- To contribute to the general improvement of data and monitoring systems in Kenya and to strengthen the technical expertise in the design, implementation and analysis of such systems.

Sample and Survey Methodology 2

2.1 Sample Design

The sample for the Mwingi 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. A total of 50 clusters (census enumeration areas (EA)) were selected within the district using the probability proportional to population size approach. A household listing was then carried out in all the selected EAs. The households were stratified into two groups; first, those with at least one child below three years, and second strata with those not having children below three years. From each selected cluster (EA), a circular 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 is not self-weighting. For reporting the results, sample weights are 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 15-49 years; and 3) an under-five questionnaire, administered to mothers or caretakers of all children under-five living in the household. The questionnaires included the following modules:

The Household Questionnaire, which was used to collect information on all household members, included the following modules:

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

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

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

The Questionnaire for Children below five years was administered to mothers or caretakers of children below five years of age[2] living in the households. 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
- 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, which are the predominant languages spoken in Eastern Province.

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

2.3 Training and Fieldwork

Training for the fieldwork was conducted in two parts during June 2008; three days training for the mapping and listing teams, and 12 days training for the main survey teams. Training included lectures on interviewing techniques and detailed discussions on 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 day doing practice on actual field interviews carried out in different locations of Embu district, before finally moving to different districts to collect data from the sampled households.

The household listing was carried out by three teams, each comprising of a lister and a mapper. These three teams were supervised by the District Statistical Officer (DSO) and the whole listing operation was continually monitored by a district co-ordinator from the KNBS headquarters.

The data collection was undertaken by two teams, each comprising of three interviewers, one driver, one editor/measurer and a supervisor. Fieldwork was started in late June 2008 and was concluded by the end of August 2008.

2.4 Data Processing

Data capture was carried out at a central location using the CSPro software. In order to ensure quality control, all questionnaires were double-entered and internal consistency checks were performed, with the entire process being monitored by two supervisors. Procedures and standard programs developed under the global MICS 3 project and adapted to the modified questionnaires were used throughout the data processing activity. Data entry began simultaneously with data collection in July 2008 and was completed in September 2008. Data were analysed using the Statistical Package for Social Sciences (SPSS) software program, and the model syntax and tabulation plans developed by UNICEF were customized for this purpose.

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

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

3.1 Sample Coverage

Table 3.1 (HH.1) presents information on the extent of the survey's coverage for the entire district. A total of 1,200 households were selected for inclusion in the survey, out of which 1,198 were occupied. Among the selected households, 1,152 were successfully interviewed, representing a response rate of 96 per cent. Within these households, 1,367 eligible women (age 15-49) were identified out of whom 90 per cent were successfully interviewed. Information was collected from 1,244 children out of a possible maximum number of 1,268, and 1,223 women out of the targeted 1,367, giving an overall responses rate of 94 per cent and 86 per cent, respectively.

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 Mwingi district, Eastern Province, Kenya 2008

Number of households	
Sampled (H_s)	1,200
Occupied (H_o)	1,198
Interviewed (H_i)	1,152
Response rate (H_r)	96.2
Number of women	
Eligible (W_e)	1,367
Interviewed (W_i)	1,223
Response rate (W_r)	89.5
Overall response rate (W_{or})	86.0
Number of children under 5	
Eligible (C_e)	1,268
Information collected (C_i)	1,244
Response rate (C_r)	98.1
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 Demographic Characteristics of Households

Table 3.2 (HH.2) shows the age and sex distribution of the survey population in the district. Out of the 1,152 households successfully interviewed, 5,733 members were listed comprising of 2,977 females and 2,756 males, respectively. These figures indicate a sex ratio of approximately 93 males for every 100 females. The age-sex distribution is illustrated further in Figure 3.1 (HH.1) which is a typical bell-shaped pyramid indicating a youthful population. About half (48 per cent) of the population is aged below 15 years, while 48 per cent fall within the age group 15-64 years. The population aged 65 years and above constitute only of four per cent of the total population. The child population (aged between 0-17 years) constitutes 56 per cent of the total population. The observed population age structure indicates a high dependency ratio.

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 Mwingi district, Eastern Province, Kenya 2008

	Males		Females		Total	
Characteristics	Number	Percentage	Number	Percentage	Number	Percentage
Age						
0-4	503	18.2	468	15.7	970	16.9
5-9	481	17.5	433	14.5	914	15.9
10-14	426	15.5	438	14.7	864	15.1
15-19	373	13.5	322	10.8	695	12.1
20-24	202	7.3	281	9.4	483	8.4
25-29	129	4.7	191	6.4	319	5.6
30-34	114	4.1	183	6.2	297	5.2
35-39	99	3.6	140	4.7	240	4.2
40-44	91	3.3	95	3.2	186	3.2
45-49	84	3.1	78	2.6	162	2.8
50-54	52	1.9	91	3.0	143	2.5
55-59	61	2.2	87	2.9	148	2.6
60-64	32	1.2	46	1.6	78	1.4
65-69	19	0.7	44	1.5	62	1.1
70+	83	3.0	70	2.3	153	2.7
Missing/DK	7	0.3	12	0.4	19	0.3
Dependency age groups						
< 15	1410	51.2	1338	44.9	2748	47.9
15-64	1237	44.9	1514	50.9	2751	48.0
65 +	102	3.7	114	3.8	216	3.8
Missing/DK	7	0.3	12	0.4	19	0.3
Children aged 0-17	1652	59.9	1531	51.4	3183	55.5
Adults 18+/Missing/ DK	1104	40.1	1446	48.6	2551	44.5
Total	**2756**	**100.0**	**2977**	**100.0**	**5733**	**100.0**

Figure 3.1: Age and Sex Distribution of Household Population, MICS Mwingi District, 2008

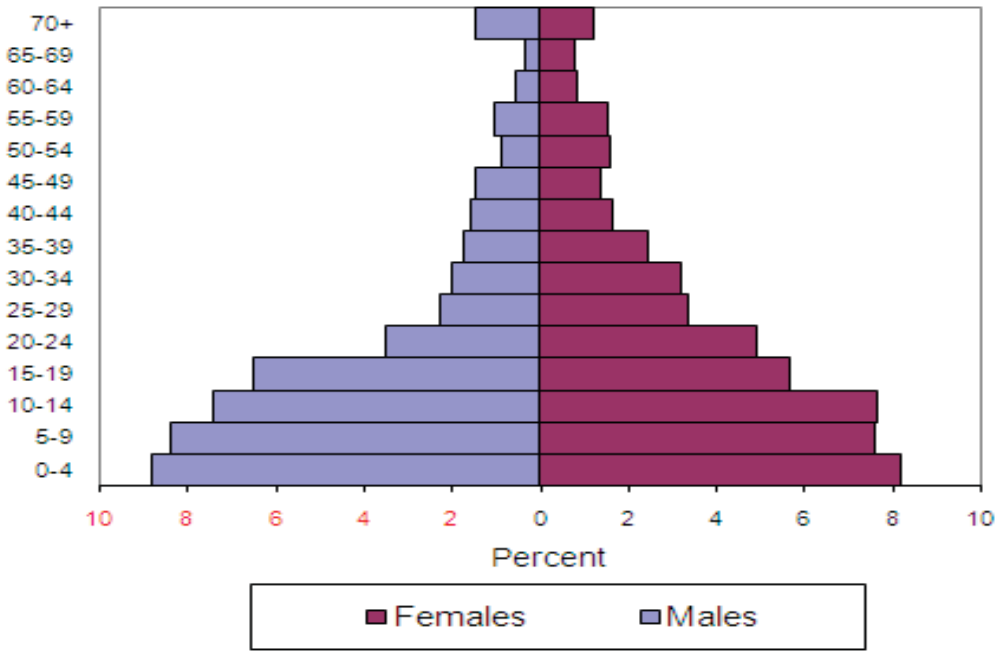


Table 3.3 (HH.3) provides basic background information on households by selected characteristics. The weighted and un-weighted numbers of total households are equal since sample weights were normalized (See Appendix A). Forty-five per cent of the households in the district are headed by females. The mean household size is five persons with about five per cent of the households having 10 or more members. About 53 per cent of the households have at least a child aged below five years, while 80 per cent of all households have at least a child aged below 18 years. About 79 per cent of households have at least one woman within the reproductive age group 15-49 years.

Table 3.3 (HH.3): Household composition

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

Characteristics	Weighted percentage	Number of households	
		Weighted	Un-weighted
Sex of household head			
Male	54.6	629	639
Female	45.4	523	513
Number of household members			
1	11.6	133	88
2-3	19.8	228	199
4-5	26.6	306	318
6-7	24.6	283	309
8-9	12.6	145	168
10+	4.9	57	70
Mean household size	5.0	NA	NA
At least one child aged < 18 years	80	1152	1152
At least one child aged < 5 years	53.2	1152	1152
At least one woman aged 15-49 years	79.3	1152	1152

3.3 Characteristics of Female Respondents

Table 3.4 (HH.4) provides information on the background characteristics of female respondents aged 15-49 years. The characteristics include age, marital status, motherhood status, education,[4] and household wealth index.[5]

The majority of the female population interviewed are aged between 15-19 years, typically reflecting a young population. About 61 per cent of the women aged 15-49 years are currently married while 31 per cent have never been married or been in union. About 28 per cent of the female population interviewed have never given birth. The majority of the respondents have attended school only up to primary level (70 per cent), with only 18 per cent having attained secondary or higher level of education.

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

[5] Principal components analysis was performed by using information on the ownership of household goods and amenities (assets) to assign weights to each household asset, and obtain wealth scores for each household in the sample (The assets used in these calculations were as follows: number of sleeping rooms, type of floor, type of roof, type of walls, type of fuel used for cooking, electricity, radio, television, telephone (mobile or land line), refrigerator, computer, internet connection, watch, bicycle, motorcycle or scooter, animal drawn cart, car or truck, boat with motor, source of drinking water and type of sanitation). Each household was then weighted by the number of household members, and the household population was divided into three groups, based on the wealth scores of households they were living in. The wealth index is assumed to capture the underlying long-term wealth through information on the household assets, and is intended to produce a ranking of households by wealth, from poorest to richest. The wealth index does not provide information on absolute poverty, current income or expenditure levels, and the wealth scores calculated are applicable for only the particular data set they are based on. Further information on the construction of the wealth index can be found in Rutstein and Johnson, 2004, and Filmer and Pritchett, 2001.

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

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

Characteristics	Weighted percentage	Number of women	
		Weighted	Un-weighted
Age			
15-19	21.7	266	250
20-24	20.3	249	266
25-29	15.5	189	214
30-34	15.5	190	199
35-39	12.1	148	141
40-44	8.2	100	88
45-49	6.7	82	65
Marital/Union status			
Currently married/in union	60.8	743	785
Formerly married/in union	8.5	104	98
Never married/in union	30.8	376	340
Motherhood status			
Ever gave birth	71.6	875	930
Never gave birth	28.4	348	293
Education			
None	11.4	140	126
Primary	70.3	859	889
Secondary +	18.2	222	207
Non standard curriculum	(0.2)	2	1
Wealth index			
Low	43.5	532	556
Medium	31.7	387	391
High	24.9	304	276
Total	**100.0**	**1,223**	**1,223**

() Based on 25-50 un-weighted figures.

3.4 Characteristics of Children below Five years

Table 3.5 (HH.5) presents information on the background characteristics of children less than five years of age. There are slightly more male children than females with a majority aged between 24-35 months. About 12 per cent of the children have mothers who have never been to school. Slightly over half (53 per cent) of children belong to households categorised as low wealth index households.

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

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

Characteristics	Weighted percentage	Number of under-5 children	
		Weighted	Un-weighted
Sex			
Male	52.0	647	639
Female	48.0	597	605
Age			
< 6 months	12.0	121	156
6-11 months	9.2	143	118
12-23 months	18.5	230	239
24-35 months	20.8	258	262
36-47 months	20.3	253	250
48-59 months	19.2	239	219
Mother's education			
None	12.3	153	145
Primary	72.1	897	908
Secondary +	15.6	194	191
Wealth index			
Low	53.2	662	644
Medium	30.6	381	393
High	16.2	202	207
Total	**100.0**	**1,244**	**1,244**

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 by two thirds by 2015. The MDGs called for the reduction in under-five mortality by two-thirds between 1990 and 2015. Monitoring progress towards this goal is an important objective. In this survey, the direct approach was used to estimate the levels of child mortality based on information derived from birth histories. The birth histories obtained from women aged between 15-49 years include the total number of children ever born and living by sex and date of birth of each child born alive. If the child is not alive at the time of survey, information on age of the child at the time of death is obtained. This method is also used by Demographic Health Surveys (DHS) worldwide, including that of Kenya Demographic Health Survey (KDHS). It therefore allows comparison of estimates with those obtained from the Demographic Health Surveys.

The mortality estimates used for this study are defined as follows:

- infant mortality: the probability of dying before reaching the first birthday;
- under-five mortality (U5MR): the probability of dying before the fifth birthday;
- neonatal mortality: the probability of dying before one month of life;
- post neonatal mortality: the probability of dying between one month and one year of life; and
- child mortality: the probability of dying between the first and fifth year of life.

All mortality measures are expressed per 1,000 live births, except for child mortality, which is expressed per 1,000 children surviving up to 12 months of age.

Although direct estimates of mortality obtained from birth histories are among the best, the quality of these estimates depends on the completeness of information obtained in the birth histories. In many cases, women tend to avoid reporting their dead children and this underestimates the mortality levels.

4.1 Levels of Childhood Mortality

Table 4.1 presents estimates of childhood mortality for the ten year period preceding the survey. The infant mortality rate is 44 per 1000 live births, while the under-five mortality rate (U5MR) is 64 per 1000 live births. It shows that for every 1,000 children born in this district, 44 do not live up to their first birthday and 64 do not live up to their fifth birthday.

Table 4.1: Child Mortality

Infant, neonatal, post-neonatal, child and under-five mortality rates for 10-year period preceding the survey, MICS Mwingi District, Eastern Province, Kenya 2008

Periods of analysis of 10 years	Infant mortality rate	Neonatal mortality rate	Post-neonatal mortality rate	Child mortality rate	Under-five mortality rate
0-9	44	25	19	21	64
10-19	56	34	22	45	98

Nutrition 5

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

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, they are more likely to have recurring sicknesses and faltering growth. 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 below five years of age by at least one-third (between 2000 and 2015). A reduction in the prevalence of malnutrition contributes towards achievement of 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. The extent of under-nourishment in a population can be gauged by comparing measures of nutritional status of children in a given population to that of the reference population. This report adopts WHO/CDC/NCHS reference. Three standard indices of physical growth that describe nutritional status of children under five are: weight-for-age (underweight), height-for-age (stunting) and weight-for-height (wasting). Each of the three nutritional status indicators is expressed in standard deviations (often referred to as z-scores) from the median of the reference population.

Height-for-age is a measure of linear growth. Children whose height-for-age is more than two standard deviations below the median of the reference population are considered short for their age and are classified as *moderately 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 resulting from failure to receive adequate nutrition over a long period of time, and possibly followed by recurrent or chronic illness.

Children whose weight-for-height is more than two standard deviations below the median of the reference population are classified as *moderately 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 in consumption associated with changes in the availability of food or with disease prevalence.

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

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

Table 5.1 (NU.1) shows the distribution of children classified into each of the above categories. However, for weight–for-height, the proportion whose measurement is above two standard deviations has been included. Such children are considered to be overweight.

A total of three per cent of the children are excluded from the analysis due to either lack of measurements, or missing age information, or measurements lying outside the plausible range.

More than one quarter (28 per cent) of children aged between 6-59 months are moderately underweight while four per cent are severely underweight. About, 39 per cent of the children are moderately stunted while 10 per cent are either severely stunted. Four per cent of the children aged between 6-59 months are moderately wasted with one per cent considered as being over-weight. Male children appear to be more likely to be stunted, underweight, and wasted than their female counterparts. The age pattern shows that a higher percentage of children aged between 12-23 months are undernourished, according to all the three indices in comparison to children who are younger or older (Figure 5.1). This pattern is expected and is related to the age at which many children cease breastfeeding and are introduced to other food supplements which may not readily be available and might be exposed to contamination through water, food and the environment.

Table 5.1 (NU.1): Child malnourishment

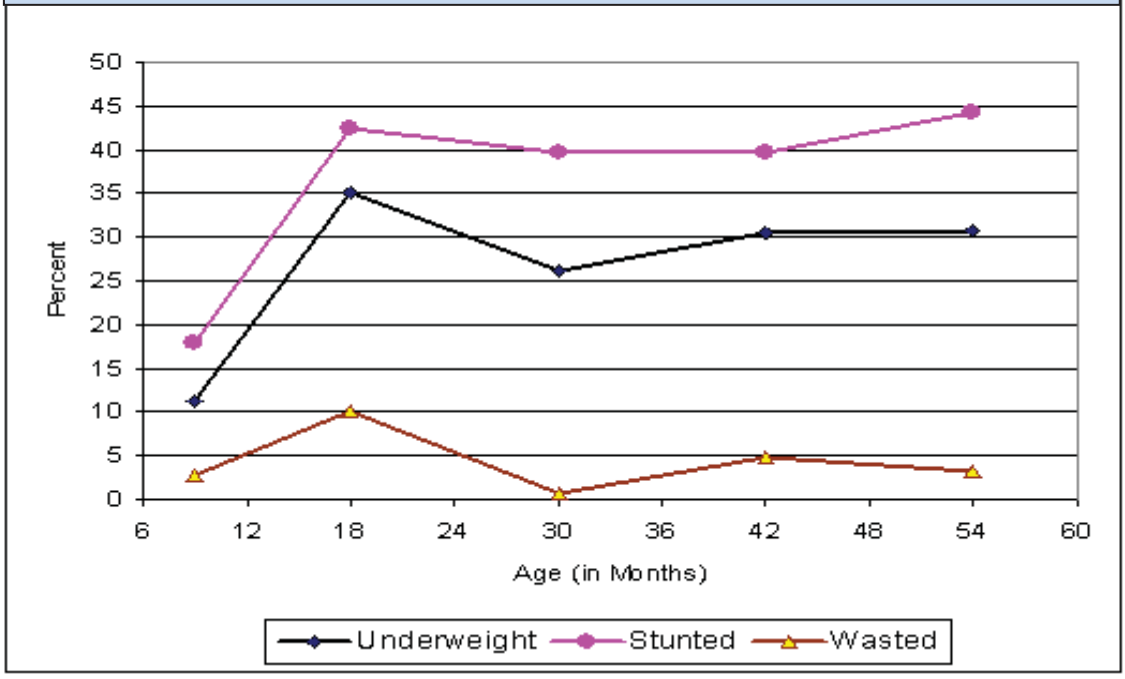
Percentage of children aged 6-59 months who are severely or moderately malnourished, MICS Mwingi district, Eastern Province, Kenya 2008

	Weight-for-age		Height-for-age		Weight-for-height			Number of children aged 6-59 months
Characteristics	% below - 2 SD	% below - 3 SD	% below - 2 SD	% below - 3 SD	% below - 2 SD	% below - 3 SD	% above + 2 SD	
Sex								
Male	28.9	4.9	42.3	11.2	5.3	0.6	1.0	551
Female	27.5	2.7	34.8	7.7	3.4	0.3	1.4	527
Age								
6-11 months	12.8	1.5	19.3	4.5	3.1	0.0	6.4	112
12-23 months	35.1	8.1	42.5	12.7	10.0	1.4	1.1	225
24-35 months	26.1	3.5	39.6	8.5	0.7	0.3	0.9	251
36-47 months	30.4	3.4	39.6	9.2	4.8	0.4	0.4	244
48-59 months	30.8	1.8	44.3	10.7	3.1	0.0	0.0	232
Mother's education								
None	31.3	2.6	36.2	10.9	2.5	0.0	1.2	134
Primary	29.8	4.3	40.0	9.8	4.3	0.5	1.0	778
Secondary +	18.4	2.7	34.5	6.7	6.1	0.5	1.9	165
Wealth index								
Low	33.8	5.5	43.0	11.5	5.5	0.6	1.1	566
Medium	27.7	2.7	40.0	10.4	3.7	0.2	1.5	336
High	11.4	0.5	22.1	1.3	2.0	0.5	1.0	175
Total	**28.2**	**3.8**	**38.7**	**9.5**	**4.3**	**0.4**	**1.2**	**1077**

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 weight is 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.

Clearly, the proportion of children who are under-weight declines with increasing levels of the mother's education as well as by increasing levels of the household wealth index. For example, 34 per cent of children from low wealth index households are moderately under-weight compared to only 11 per cent among those from high wealth index households. This pattern is also consistent with the levels of stunting by household wealth index; 43 per cent for children from low wealth index households versus 22 per cent among those from high wealth index households. It is also important to note that 1.2 per cent of children from Mwingi district are overweight, and this proportion does not vary much by levels of household wealth index.

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



5.2 Breastfeeding

Breastfeeding for the first few years of life protects children from infection, provides an ideal source of nutrients, is economical and safe. However, many mothers stop breastfeeding before the recommended period and there is often pressure to switch to infant formulas which can contribute to growth faltering and micronutrient deficiency. This method of feeding young children may also be unsafe especially where clean water is not readily available. The World Fit for Children goal states that children should be exclusively breastfed for six months and continue to be breastfed with safe, appropriate and adequate complementary feeding for up to at least two years of age.

The WHO and 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: two times per day for 6-8 month olds; three times per day for 9-11 month olds

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

The indicators for 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)

Table 5.2 (NU.2) provides the proportion of women who started breastfeeding their infants within one hour of birth, and within one day of birth (which includes those who started within one hour) respectively. About 94 per cent of the mothers started breastfeeding their new-borns within one day of birth, with about 69 per cent doing so within one hour of birth. The proportion of women initiating breastfeeding within one hour of birth was highest among women with primary level education (71 per cent) and lowest among those with secondary or higher level of education (59 per cent). Similarly, the proportion initiating breastfeeding within an hour was highest among women from low wealth index households (75 per cent) and lowest among those from high wealth index households (61 per cent). The proportional differences in women who initiated breastfeeding within one day of birth by levels of mother's education and household wealth index were slightly less than those observed for initiating breastfeeding within an hour of birth, although the proportions were still in favour of women with no education and those from low wealth index households.

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 Mwingi district, Eastern Province, Kenya 2008

Characteristics	Percentage who started breastfeeding within one hour of birth	Percentage who started breastfeeding within one day of birth	Number of women with a live birth in the two years preceding the survey
Months since birth			
< 6 months	71.7	95.8	94
6-11 months	65.2	93.4	109
12-23 months	69.9	96.6	186
More than 23 months	(70.5)	(78.6)	29
Mother's education			
None	(67.4)	(90.7)	41
Primary	71.3	95.2	318
Secondary +	58.7	92.2	59
Wealth index			
Low	74.8	96.9	222
Medium	63.6	91.6	127
High	60.9	90.8	69
Total	**69.1**	**94.3**	**418**

( ): Based on un-weighted cases. 25-50
(*): Based on less than 25 un-weighted cases.

Tables 5.3a and 5.3b (NU.3) shows breastfeeding status of children as reported by mothers or caretakers and children's consumption of food and fluids in the 24 hours prior to the interview. Exclusively breastfed refers to infants who received only breast milk (and vitamins, mineral supplements, or medicine).

About 44 per cent of children aged 0-3 months are exclusively breastfed. However, when the age bracket is expanded to less than six months, only 32 per cent are exclusively breastfed. Overall female children are more likely to be exclusively breastfed.

Table 5.3a (NU.3): Breastfeeding

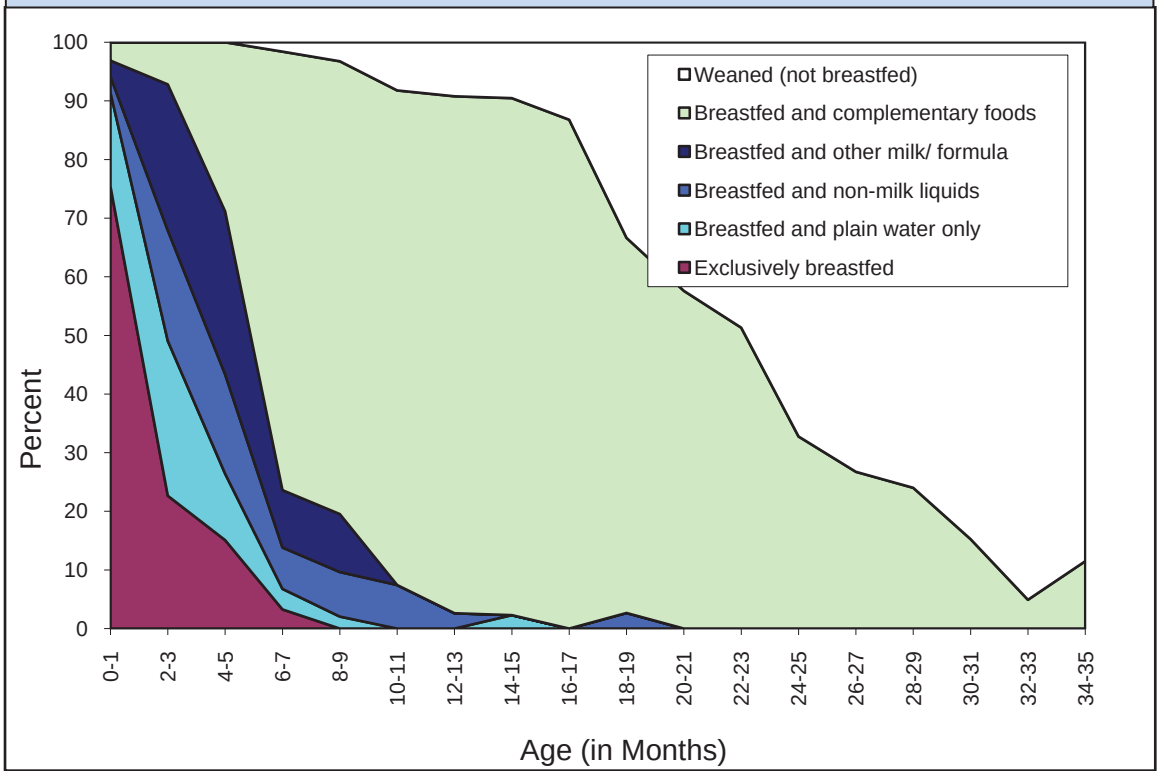
Percentage of living children according to breastfeeding status at each age group, MICS Mwingi district, Eastern Province, Kenya 2008

	Children age 0-3 months		Children age 0-5 months	
Characteristics	Percentage exclusively breastfed	Number of children	Percentage exclusively breastfed	Number of children
Sex				
Male	(39.7)	42	28.4	67
Female	(49.6)	30	36.7	54
Mother's education				
None	(*)	6	(*)	9
Primary	43.7	54	33.3	89
Secondary +	(*)	12	(*)	23
Wealth index				
Low	50.9	44	36.5	73
Medium	(*)	18	(25.6)	26
High	(*)	10	(*)	22
Total	**43.8**	**72**	**32.1**	**121**

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 un-weighted cases. 25-50
(*): Based on less than 25 un-weighted cases.

Figure 5.2 gives a diagrammatic representation of the feeding patterns of children aged three years and below. The figure shows that exclusive breastfeeding declines sharply to three months of age, during which time the majority of children are receiving liquids or foods other than breast milk. By the end of the sixth month, the percentage of children exclusively breastfed is below five per cent.

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



At the ages between 6-9 months, 76 per cent of children are receiving breast milk and solid or semi-solid foods while within the ages between 12-15 months, 91 per cent of the children are still being breastfed. However, a lower proportion of (54 per cent) children aged between 20-23 months were still being breastfed. The results of breastfeeding practices show that less than half of children in the district are receiving the recommended breastfeeding levels by WHO and UNICEF.

Table 5.3b (NU.3): Complementary Feeding

Percentage distribution of children by breastfeeding status and age group, MICS Mwingi district, Eastern Province, Kenya 2008

	Children age 6-9 months		Children age 12-15 months		Children age 20-23 months	
Characteristics	Per cent receiving breast milk and solid/ mushy food	Number of children	Percentage breastfed	Number of children	Percentage breastfed	Number of children
Sex						
Male	73.1	58	93.1	38	51.2	46
Female	79.9	42	88.0	37	(57.6)	35
Mother's education						
None	(*)	11	(*)	10	(*)	8
Primary	75.7	78	91.1	53	58.6	57
Secondary +	(*)	12	(*)	12	(*)	15
Wealth index						
Low	(76.9)	56	94	36	(59.1)	38
Medium	(*)	27	(*)	24	(42.6)	28
High	(*)	17	(94.1)	15	(*)	14
Total	**76.0**	**101**	**90.6**	**75**	**53.9**	**80**

(*) Based on 0-25 un-weighted figures and has been suppressed.

The adequacy of feeding in children less than 12 months old is provided in Table 5.4 (NU.4). Several criteria/definitions of adequate feeding are used depending on the age of the child. For infants aged 0-5 months, exclusive breastfeeding is considered as adequate feeding. Infants aged 6-8 months are considered to be adequately fed if they receive breast milk and complementary food at least two times per day. Infants aged 9-11 months are considered to be adequately fed if they receive breast milk and eat complementary food at least three times a day.

Only 32 per cent of infants aged 0-5 months are exclusively breastfed and are therefore considered adequately fed. Among children aged 6-11 months, 65 per cent are adequately fed. Among all infants aged 0-11 months, only half of them can be considered to be receiving adequate feeding. Female children were more likely to receive adequate feeding compared to their male counterparts. The effect of the education status of the child's mother or caretaker was unclear. Surprisingly, the proportion of infants who are appropriately fed is much higher for mothers from low wealth index households than for those from medium wealth index households.

Table 5.4 (NU.4): Adequately Fed Infants

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

	Percentage of infants					
Characteristics	0-5 months exclusively breastfed	6-8 months who received breast milk and complementary food at least 2 times in prior 24 hours	9-11 months who received breast milk and complementary food at least 3 times in prior 24 hours	6-11 months who received breast milk and complementary food at least the minimum recommended number of times per day	0-11 months who were appropriately fed	Number of infants aged 0-11 months
Sex						
Male	28.4	63.5	57.7	60.9	46.5	151
Female	36.7	79.2	62.2	71.5	54.9	113
Mother's education						
None	(*)	(*)	(*)	(*)	(*)	21
Primary	33.3	67.1	62.6	65	51.2	204
Secondary +	(18.2)	(70.2)	(43.8)	(57.9)	(35.0)	39
Wealth index						
Low	36.5	72.3	56.2	64.4	51.3	155
Medium	25.6	59.4	62.8	60.9	46.8	65
High	(25.5)	(78.0)	(72.5)	(76.5)	(50.8)	44
Total	**32.1**	**69.9**	**59.6**	**65.3**	**50.1**	**264**

(*) Based on 0-25 un-weighted figures and has been suppressed.
( ) Based on 25-50 un-weighted figures.

5.3 Salt Iodization

Iodine Deficiency Disorders (IDD) is a leading cause of preventable mental retardation and impaired psychomotor development in young children. In its most extreme form, iodine deficiency can cause cretinism. It also increases the risk of stillbirth and miscarriage in pregnant women. Iodine deficiency is most commonly and visibly associated with goitre. IDD manifests itself through impaired mental growth and development, contributing in turn to poor school performance, reduced intellectual ability, and impaired work performance. The international goal was to achieve sustainable elimination of iodine deficiency by 2005. The indicator for achieving sustainable elimination of iodine deficiency is the percentage of households consuming adequately iodized salt ($\geq$15 parts per million).

Cooking Salt was tested in 86 per cent of households for iodine content, using salt test kits to check for the presence of potassium iodide. Table 5.5 (NU.5) shows that slightly more than nine per cent of households had no salt available at the time of the survey, the situation being nearly three times more prevalent among low than high wealth index households. Out of all the households where salt was tested, 89 per cent were found to have salt containing 15 parts per million (ppm) or more of iodine, i.e., adequately iodized salt. As expected, households from high wealth index households had more iodized salt than the medium or low wealth index households.

Table 5.5 (NU.5): Iodized salt consumption

Percentage of households consuming adequately iodized salt, MICS Mwingi district, Eastern Province, Kenya 2008

Wealth index	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
Low	81.4	511	13.9	1.8	84.4	100.0	483
Medium	89.4	353	6.6	2.2	91.3	100.0	338
High	90.8	287	4.4	1.3	94.3	100.0	273
Total	**86.2**	**1152**	**9.3**	**1.8**	**89.0**	**100.0**	**1094**

5.4 Vitamin A Supplements

Vitamin A is essential for eye health and the proper functioning of the body's immune system. This type of vitamin is normally obtained from foods such as milk, liver, eggs, red and orange fruits, red palm oil and green leafy vegetables. However, the amount of vitamin A readily available to the body from these sources varies widely. In developing regions of the world where vitamin A is mainly 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 common in the developing world, particularly in countries with the highest burdens of under-five mortality.

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 in child health and body immunity makes control of this deficiency a primary component of child survival efforts and therefore critical to the achievement of the fourth Millennium Development Goal of reducing by two-thirds the under-five mortality by the year 2015.

For countries exhibiting high levels of vitamin A deficiency, current international recommendations call for administering a high-dose vitamin A supplementation every four to six months targeted to all children between the ages of 6 to 59 months. Providing young children with two high-dose vitamin A capsules a year is a safe, efficient and cost-effective 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 supply of vitamin A which is depleted during pregnancy and lactation. For countries with vitamin A supplementation programs, the indicator is the percentage of children 6-59 months old receiving at least one high dose vitamin A supplement in the last six months.

Based on UNICEF/WHO guidelines, the Government of Kenya through the Ministry of Health recommends that every 6 months, children aged 6-11 months should be given one high-dose Vitamin A capsule while those aged 12-59 months should be given an ordinary vitamin A capsule. 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.

Within the six months prior to the survey, only 21 per cent of children aged 6-59 months had received a high-dose Vitamin A supplement (Table 5.6(NU.6)). About 44 per cent of the children did not receive the supplement within the previous six months but did receive one prior to that time. Just over five per cent of children received Vitamin A supplementation at some time in the past but their mother/caretaker was unable to specify when. There appears to be minimal variation in vitamin A supplementation coverage between female and male children.

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 Mwingi district, Eastern Province, Kenya 2008

	Percentage of children who received vitamin A:							
Characteristics	Within last 6 months*	Prior to last 6 months	Not sure when	Not sure if received vitamin A	Never received vitamin A	Missing	Total	Number of children aged 6-59 months
Sex								
Male	20.0	44.7	3.7	2.6	29.0	0.3	100	579
Female	21.6	43.9	7.1	1.2	26.1	0.3	100	544
Age								
6-11 months	42.0	8.8	1.5	2.2	45.5	2.5	100	115
12-23 months	35.2	35.3	2.2	1.2	26.2	0.0	100	230
24-35 months	13.3	54.7	8.0	1.4	22.8	0.0	100	259
36-47 months	11.7	51.7	6.4	2.0	28.2	0.0	100	253
48-59 months	13.1	56.5	6.8	3.3	20.3	0.0	100	239
Mother's education								
None	15.2	38.2	2.4	6.7	37.6	0.0	100	143
Primary	20.9	44.3	4.2	1.2	29.2	0.2	100	809
Secondary +	25.0	49.5	13.0	1.6	10.9	1.0	100	172
Wealth index								
Low	18.2	42.7	3.4	1.6	34.2	0.5	100	589
Medium	24.1	45.3	6.7	1.3	22.6	0.3	100	354
High	22.6	47.7	9.3	4.4	16.0	0.0	100	180
Total	**20.8**	**44.3**	**5.3**	**2.0**	**27.6**	**0.3**	**100**	**1123**

The age pattern of Vitamin A supplementation shows that in the last six months, supplementation declines from a high of 42 per cent among children aged 6-11 months to a low of 12 per cent among children aged 36-47 months.

Children with mothers who have attained a secondary of higher education level are more likely to receive vitamin A supplementation than those with less educated mothers or mothers with no education. For example, the proportion receiving a supplement in the last six months increases from 15 per cent among children whose mothers have no education to 21 per cent for mothers with primary education and 25 per cent among children with mothers educated to secondary or higher education levels. The proportions of children receiving Vitamin A by levels of household wealth index show that 24 per cent of the children from medium wealth index households received Vitamin A supplementation as compared to 23 per cent of those from high wealth index households and 18 per cent for those from low wealth index households.

Table 5.7 (NU.7) shows the distribution 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 eight weeks old or not. About 29 per cent received a high-dose Vitamin A supplement within eight weeks of birth, with a negligible proportion not sure whether they received the supplement or not. It is clear that uptake of the high-dose Vitamin A supplement increases with increasing levels of mother's educational attainment.

Table 5.7 (NU.7): Post-partum Mothers' Vitamin A Supplementation

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

Characteristics	Received vitamin A supplement*	Not sure if received vitamin A	Number of women aged 15-49 years
Education			
None	(16.6)	(5.2)	41
Primary	29.4	0	318
Secondary +	35.9	0	59
Wealth index			
Low	25.1	0	222
Medium	35.4	0	127
High	30.1	3.1	69
Total	**29.1**	**0.5**	**418**

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

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.

5.5 Low Birth Weight

Weight at birth is a good indicator not only of a mother's health and nutritional status, but also of the newborn's chances of survival, growth, long-term health and psychosocial development. Low birth weight (less than 2,500 grams) carries a range of grave health risks for children. Babies who were undernourished in the womb face increased risk of dying during their early months of life. Those who survive are likely to have impaired immune function and increased risk of disease; they are likely to remain undernourished, with reduced muscle strength throughout their lives, and to suffer a higher incidence of diabetes and heart disease in later life. Children born underweight also tend to have cognitive disabilities, which can affect their performance in school and their adult working life.

In the developing world, low birth weight stems primarily from the mother's poor health and nutrition. Three factors have the most impact: the mother's poor nutritional status before conception, her short stature (due mostly to under nutrition and infections during her childhood), and her 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 at birth. In the past, most estimates of low birth weight for developing countries were based on data compiled from health facilities. However, these estimates are biased for most developing countries because the majority of newborns are not delivered in facilities. Therefore those delivered in health facilities and weighed are only a small sample of all births, undermining the usefulness of such data for estimation of low birth weight prevalence.

For MICS, therefore, the percentages of births weighing below 2500 grams is estimated from two items in the questionnaire: the mother's assessment of the child's size at birth (i.e., very small, smaller than average, average, larger than average, very large) and the mother's recall of the child's weight or the weight as recorded on a health card if the child was weighed at birth.[6]

Sixty two per cent of the births in the district were weighed at birth and approximately seven per cent of infants in the district were estimated to weigh less than 2500 grams at birth (Table 5.8 (NU.8**)**. The proportion of children weighed at birth increases with mother's education and by increasing levels of the household wealth index.

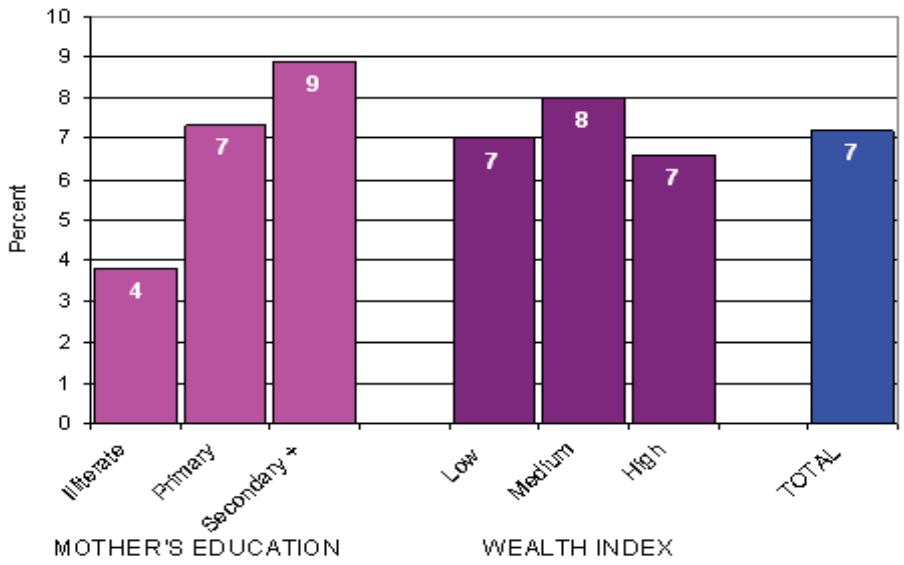
Table 5.8 (NU.8): Low Birth Weight Infants

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

	Percentage of live births:		
Characteristics	Below 2500 grams	Weighed at birth	Number of live births
Mother's education			
None	(3.5)	(61.4)	41
Primary	7.2	59.8	318
Secondary +	8.9	74.9	59
Wealth index			
Low	7.0	51.8	222
Medium	7.6	71.0	127
High	6.0	79.0	69
Total	**7.0**	**62.1**	**418**

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

Figure 5.3: Percentages of children weighing less than 2,500 grams at birth, MICS Mwingi, 2008



5.6 Food Relief

Table 5.9 (NU.11) shows the distribution of households in the district registered as beneficiaries of the food relief program. Only six per cent of the households reported to be beneficiaries of the food relief distribution program in the district, with, less than one per cent reporting meeting their food needs. Among those registered, 23 per cent received food supplies during the last one month, another eight per cent received food relief between 1-3 months prior to the survey and a reduced proportion of four per cent received supplies over the previous 3-6 months. More than half of the benefiting households had received food rations more than six months ago. With only six per cent of households registered as food relief beneficiaries, and half of them having received the food rations more than six months before the survey that the implications are that the coverage and effectiveness of the programme in addressing malnutrition in the district is still limited. Registered food relief beneficiaries were more likely to be from low wealth index households.

Table 5.9 (NU11): Food Relief

Proportion of households registered as beneficiaries of food relief program, and time of last receipt of food and whether meeting their full requirement or not, Mwingi district, Eastern Province, Kenya 2008

Wealth index	Percentage households registered as beneficiary of food relief	Total number of households	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 relief
			Within 1 month	Between 1-3 months	Between 3-6 months	Before 6 months	Total per cent		
Low	9.3	511	32.3	4.0	5.7	38.6	100.0	0.7	48
Medium	4.8	353		25.2		74.8	100.0	0.3	17
High	2.6	287				100.0	100.0	0.5	8
Total	**6.3**	**1152**	**22.7**	**8.0**	**4.0**	**51.7**	**100.0**	**0.5**	**72**

6.1 Immunization

The Millennium Development Goal (MDG) number 4 aims at reducing child mortality by two thirds between 1990 and 2015. Immunization is an integral component of this goal. Immunizations have managed to save the lives of millions of children in the past three decades since the launch of the Expanded Programme on Immunization (EPI) in 1974. Worldwide there are still 27 million children not reached by routine immunization and as a result, vaccine-preventable diseases cause more than 2 million deaths every year.

A World Fit for Children goal is to ensure that 90 per cent of children below one year of age are fully immunized 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 child 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, 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 cards was obtained using a set of structured direct questions on immunization. The immunization coverage shown in this report includes information from cards as well as re-calls, unless mentioned otherwise.

Ninety two per cent of children aged 12-23 months received a BCG vaccination by the age of 12 months while 90 per cent received the first dose of DPT (see Table 6.1 and Figure 6.1). By the end of the first 12 months of life, 87 per cent and 86 per cent had received the third doses of diphtheria and polio, respectively. Out of the four types of vaccinations, measles had the lowest rate of coverage at 72 per cent. However, an additional 10 per cent received the measles vaccine outside the recommended 12 month period. Sixty one per cent of all the children in the age group 12-23 months had received all the recommended vaccinations by the time of their first birthday while 5 per cent of the children had reportedly not received any of the vaccines. Seventy three per cent of the children aged 12-23 months had received all the vaccinations though some received their vaccinations outside the recommended 12 month period.

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, Mwingi District, Eastern Province, Kenya 2008

	Percentage of children who received:											Number of children aged 12-23 months
Vaccinated at any time before the survey	BCG	DPT1	DPT2	DPT3	Polio0	Polio 1	Polio 2	Polio 3	Measles	All*	None	
According to:												
Vaccination card	81	82.2	82.5	80	58.7	84	82.5	80.1	73.2	69.8	0	230
Mother's report	10.5	9.1	7.6	7.2	5.1	9.8	7.5	6.5	8	3.1	5.2	230
Either	91.5	91.3	90.1	87.1	63.7	93.8	90	86.6	81.3	72.9	5.2	230
Vaccinated by 12 months of age	91.5	89.6	90.1	86.7	63.7	93.8	89.1	85.8	71.7	61.3	5.2	230

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.

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

Figure 6.1: Percentage of children aged 12-23 months who received the recommended vaccinations by 12 months, MICS Mwingi district, 2008

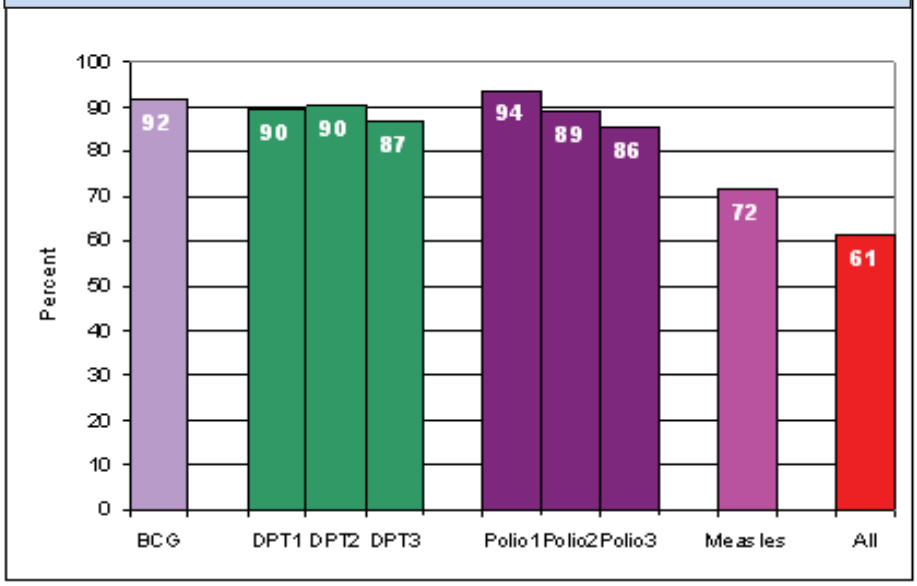


Table 6.2 (CH.2) shows vaccination coverage rates among children aged 12-23 months disaggregated by background characteristics. Eighty three per cent of the children had health cards. For the cases where there was no card for the child, the mother was asked to recall the number of times and whether or not the child had received each of the vaccinations for DPT and Polio. These figures indicate the proportions of children receiving the vaccinations at any time prior to the date of the survey, and are based on information from both the vaccination cards and mothers'/caretakers' reports. In the district, 73 per cent of children aged 12-23 months are fully vaccinated. The immunization coverage rate is comparable for male and female children. The proportion of children

who are fully immunized appears to increase with increasing levels of the mother's education attainment. Surprisingly, the proportion of children fully immunized was highest among children from medium wealth index households (78 per cent) and lowest among those from low wealth index households (69 per cent) as expected.

Table 6.2 (CH.2): Vaccinations by Background Characteristics

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

	Percentage of children who received:												
Characteristics	BCG	DPT 1	DPT 2	DPT 3	Polio 0	Polio 1	Polio 2	Polio 3	Measles	All	None	Percent-age with health card	Number of children aged 12-23 months
Sex													
Male	91.3	91.5	89.1	86.5	64.9	94.7	91.2	88.2	81.2	72.8	3.5	89.4	125
Female	91.9	91.1	91.2	87.9	62.4	92.8	88.6	84.7	81.4	73.0	7.2	79.7	105
Mother's education													
None	(90.2)	(87)	(87.3)	(80.3)	(54.4)	(92.9)	(89.9)	(80.3)	(78.7)	(71.5)	(7.1)	(84.6)	32
Primary	91.9	92.3	89.9	87.0	62.9	93.7	89.2	86.8	80.9	72.4	5.0	85.5	160
Secondary +	91.1	91	93.3	93.3	75.2	95.4	93.3	91.3	84.7	76.1	4.6	82.8	38
Wealth index													
Low	91.1	91.6	88.8	84.4	57.7	93.5	88.7	82.4	79.1	68.6	5.2	83.7	110
Medium	92.5	92.3	92.5	92.4	67.6	95.7	93.6	92.5	84.2	78.2	3.4	87.1	82
High	90.7	88.3	88.5	83.6	73.1	90.7	85.9	86.0	81.3	74.0	9.3	84.0	37
Total	**91.5**	**91.3**	**90.1**	**87.1**	**63.7**	**93.8**	**90**	**86.6**	**81.3**	**72.9**	**5.2**	**85.0**	**230**

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

6.2 Tetanus Toxoid

The Millenium Development Goal 5 (target number 6) seeks to reduce by three quarters the maternal mortality ratio (MMR), with one strategy being to eliminate maternal tetanus. In addition, A World Fit for Children goal was to eliminate maternal and neonatal tetanus by 2005.

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

- Received at least two doses of tetanus toxoid vaccine, the last within the immediate past three years;
- Received at least three doses, the last within the immediate past five years;
- Received at least four doses, the last within the past 10 years; or
- Received at least five doses during their lifetimes.

Table 6.3 (CH.3) shows the protection status from tetanus of women who have had a live birth within the last 12 months. About 68 per cent of all women in the district who had a birth during the 12 months preceding the survey had adequate protection against tetanus, with 59 per cent of the mothers receiving the minimum two doses during pregnancy. Younger women are more likely to be protected and to have received the minimum two doses during pregnancy compared to older mothers (30 years and above). There are slight differences on protection against tetanus by level of education and

household wealth index. Clearly, women from high wealth index (65 per cent) and those with secondary or higher level of education (65 per cent) were more protected.

Table 6.3 (CH.3): Neonatal Tetanus Protection

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

	Percentage of mothers with a birth in the last 12 months who:						
Characteristics	Received at least 2 doses during last pregnancy	Received at least 2 doses, the last within prior 3 years	Received at least 3 doses, last within prior 5 years	Received at least 4 doses, last within prior 10 years	Received at least 5 doses during lifetime	Protected against tetanus*	Number of mothers
Age							
15-19	(72.1)	(.0)	(.0)	(.0)	(.0)	(72.1)	(26)
20.-24	64.9	6.9	0.0	0.0	0.0	71.8	127
25-29	66.2	9.0	0.0	0.0	0.0	75.3	108
30-34	49.1	8.9	0.8	0.0	0.0	58.8	81
35-49	44.6	10.9	0.0	0.0	2.4	57.8	77
Education							
None	(59.8)	(7.2)	(0)	(0)	(0)	(67)	41
Primary	57.7	9.1	0.2	0.0	0.6	67.6	318
Secondary +	64.5	3.8	0.0	0.0	0.0	68.3	59
Wealth index							
Low	58.2	11	0.0	0.0	0.8	70	222
Medium	56.8	4.7	0.5	0.0	0.0	62.1	127
High	65.1	5.2	0.0	0.0	0.0	70.3	69
Total	**58.9**	**8.1**	**0.2**	**0.0**	**0.4**	**67.6**	**418**

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.
(*) Based on 0-25 un-weighted figures and has been suppressed.
( ) Based on 25-50 un-weighted figures.

6.3 Oral Rehydration Treatment

Diarrhoea is one of the leading causes 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 through 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 international goals for reducing diarrhoea include: 1) reduce by one half deaths due to diarrhoea among children under five by 2010 compared to 2000 (A World Fit for Children); and 2) reduce by two thirds the mortality rate among children under five by 2015 compared to 1990 (Millennium Development Goals).

The indicators are:

- Prevalence of diarrhoea
- Oral Rehydration Therapy (ORT)
- Home management of diarrhoea
- ORT or increased fluids and continued feeding

In the MICS questionnaire, mothers (or caretakers) were asked to report whether their child had diarrhoea in the two weeks prior to the survey. 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 what the child usually ate and/or drank.

About 13 per cent of children below five years had diarrhoea in the two weeks preceding the survey (Table 6.4 (CH.4)). The prevalence of diarrhoea was highest among children below 12 months of age. Table 6.4 (CH.4) also provides information on the proportion of children receiving various types of recommended liquids during the episode of diarrhoea. Since most mothers were able to name more than one type of liquid, the percentages do not necessarily add up to 100. About 21 per cent received fluids from ORS packets; 22 per cent received recommended homemade fluids while 14 per cent received pre-packaged ORS fluids. Overall, 38 per cent of children who had diarrhoea received one or more of the recommended home treatments (i.e., were treated with ORS or RHF), while 62 per cent were reported to have received no treatment during the illness.

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 Mwingi district, Eastern Province, Kenya 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	13.5	647	20.2	20.0	17.3	61.8	38.2	87
Female	12.7	597	21.2	23.8	10.5	62.0	38.0	76
Age								
<6 months	(24.6)	(121)	(13.1)	(11.9)	(9.2)	(68.8)	(31.2)	36
6-11 months	(24.3)	143	(20.6)	(21.6)	(21.7)	(61.6)	(38.4)	29
12-23 months	16.4	230	19.8	21.2	14.1	59.3	40.7	38
24-35 months	10.6	259	34.4	34.2	17.7	49.5	50.5	27
36-47 months	(*)	(*)	(*)	(*)	(*)	(*)	(*)	25
48-59	(*)	(*)	(*)	(*)	(*)	(*)	(*)	9
Mother's education								
None	9.8	153	23.3	30.2	22.7	47.5	52.5	15
Primary	13.8	897	20.9	21.5	12.3	64.0	36.0	123
Secondary +	12.8	194	17.9	18.0	18.2	60.3	39.7	25
Wealth index								
Low	13.1	662	23.9	25.2	17.0	57.4	42.6	87
Medium	14.3	381	15.7	17.0	13.8	66.7	33.3	55
High	(*)	(*)	(*)	(*)	(*)	(*)	(*)	22
Total	**13.1**	**1244**	**20.7**	**21.8**	**14.2**	**61.9**	**38.1**	**163**

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.

Table (CH.5) presents information on the home management of diarrhoea among children below five years of age who had diarrhoea during the two weeks preceding the survey. About 18 per cent drank more than usual, while 82 per cent drank the same or less amounts of fluids. About 43 per cent were reported to have eaten somewhat less, same or more (i.e. continued feeding), while 57 per cent were said to have eaten much less or almost nothing. Among all the children who had diarrhoea, 19 per cent received increased fluids and at the same time continued feeding, indicating a very low level of proper home management of diarrhoea episodes. Surprisingly, children with mothers with some level of education were less likely to receive ORT or increased fluids and continued feeding during the diarrhoea episode compared to those with mothers who had no education (29 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, Mwingi district, Eastern Province, Kenya 2008

Characteristics	Had diarrhoea in last two weeks	Number of children aged 0-59 months	Children with diarrhoea who: Drank more	Drank the same or less	Ate somewhat less, same or more	Ate much less or none	Home management of diarrhoea	Received ORT or increased fluids AND continued feeding	Number of children aged 0-59 months with diarrhoea
Sex									
Male	13.5	647	15	84	44.1	54.9	6.0	19.6	87
Female	12.7	597	21.4	78.6	41.4	58.6	8.4	19.0	76
Age									
0-11 months	24.2	244	10.9	89.1	31.6	68.4	0.0	9.1	59
12-23 months	(18.2)	230	(20.4)	(77.6)	(45.6)	(52.3)	(12.8)	(25.5)	42
24-35 months	(9.8)	262	(27.7)	(72.3)	(62.7)	(37.3)	(13.9)	(39.3)	26
36-47 months	10.8	247	20.7	79.3	39.2	60.8	6.6	13.4	27
48-59 months	3.8	261	17.2	82.8	56.8	43.2	9.3	18.2	10
Mother's education									
None	9.8	153	6.5	93.5	43.9	56.1	0.0	28.8	15
Primary	13.8	897	18.5	80.8	44.6	54.7	8.7	18.5	123
Secondary +	12.8	194	22.4	77.6	33.7	66.3	3.8	17.4	25
Wealth index									
Low	13.1	662	17.3	81.7	44.3	54.7	6.2	23.1	87
Medium	14.3	381	16.2	83.8	39.0	61.0	6.4	11.4	55
High	10.9	202	25.0	75.0	46.8	53.2	12.5	23.9	22
Total	**13.1**	**1244**	**18.0**	**81.5**	**42.9**	**56.6**	**7.1**	**19.3**	**163**

(*) Based on 0-25 un-weighted figures and has been suppressed.
( ) Based on 25-50 un-weighted figures.

6.4 Care Seeking and Antibiotic Treatment of Pneumonia

Pneumonia is another leading cause of death among young children and the use of antibiotics for treating suspected cases is a key intervention. One of the goals of A World Fit for Children 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/or a blocked nose. The following indicators are used to examine both the prevalence of suspected pneumonia and care seeking behaviour:

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

Table 6.6 (CH.6) presents information regarding the prevalence of suspected pneumonia among children aged 0-59 months. Seven per cent of children aged 0-59 months were reported to have had symptoms of pneumonia during the two weeks preceding the survey. Among these children who had symptoms of pneumonia, 59 per cent were taken to an appropriate health service provider. Among those taken to a health service provider, 54 per cent were taken to a government facility, (or service was provided by a government health worker) with another five per cent receiving services from the private sector, and the remaining cases (about three per cent) received services from other sources, such as over the counter medication from the shop or just friends. A much higher proportion of male children (57 per cent) were taken to government facilities than female children (42 per cent).

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

Percentage of children aged 0-59 months with suspected pneumonia in the last two weeks taken to a health provider, Mwingi district, Eastern Province, Kenya 2008

Characteristics	Had acute respiratory infection	Number of children aged 0-59 months	Children with suspected pneumonia who were taken to: Public sources: Govt. Hospital	Govt. health centre	Govt. health post	Other public*	Private sources: Private hospital/ clinic	Other source: Shop	Any appropriate provider	Number of children aged 0-59 months with suspected pneumonia
Sex										
Male	7.5	647	22.5	27.5	7.3	0.0	5.6	5.1	62.9	48
Female	6.7	597	17.2	25.0	2.2	5.7	4.2	0.0	54.2	40
Age										
0-11 months	(*)	264	(*)	(*)	(*)	(*)	(*)	(*)	(*)	20
12-23 months	(*)	230	(*)	(*)	(*)	(*)	(*)	(*)	(*)	24
24-35 months	(*)	262	(*)	(*)	(*)	(*)	(*)	(*)	(*)	13
36-47 months	(*)	247	(*)	(*)	(*)	(*)	(*)	(*)	(*)	17
48-59 months	(*)	261	(*)	(*)	(*)	(*)	(*)	(*)	(*)	15
Mother's education										
None	(*)	153	(*)	(*)	(*)	(*)	(*)	(*)	(*)	5
Primary	8.2	897	20.7	21.8	5.0	3.1	3.7	3.3	54.2	74
Secondary +	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	10
Wealth index										
Low	(*)	662	(*)	(*)	(*)	(*)	(*)	(*)	(*)	48
Medium	6.8	381	23.2	23.9	0.0	0.0	6.9	2.9	54	26
High	(*)	202	(*)	(*)	(*)	(*)	(*)	(*)	(*)	15
Total	**7.1**	**1,244**	**20.1**	**26.3**	**5.0**	**2.6**	**5.0**	**2.8**	**59.0**	**88**

(*): Based on less than 25 un-weighted cases.
( ): Based on un-weighted cases 25-50
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.
* Includes village health worker or mobile/outreach clinic.

Table 6.7 (CH.7) presents information on the use of antibiotics for the treatment of suspected pneumonia among children under-five years by sex, age, and socio-economic factors. In Mwingi district, 34 per cent of children under-five years with suspected pneumonia had received an antibiotic treatment during the two weeks prior to the survey. Male children were more likely than female children to receive antibiotics. Surprisingly, the proportion of children receiving antibiotics reduced with increasing levels of mother's education attainment.

Table 6.7 (CH.7): Antibiotic Treatment of Pneumonia

Percentage of children aged 0-59 months with suspected pneumonia who received antibiotic treatment, Mwingi district, Eastern Province, Kenya 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	36.7	48
Female	31.7	40
Age		
0-11 months	37.3	20
12-23 months	32.2	24
24-35 months	52.3	13
36-47 months	30.7	17
48-59 months	23.1	15
Mother's education		
None	40.5	5
Primary	35.3	74
Secondary +	25.4	10
Wealth index		
Low	29.8	48
Medium	43.6	26
High	33.1	15
Total	**34.4**	**88**

Issues related to knowledge of danger signs of pneumonia are presented in Table 6.8 (CH.8). Only one per cent of women know of the two danger signs of pneumonia – fast and difficult breathing. The most commonly identified symptom for taking a child to a health facility by the mothers or caretakers is developing fever. An estimated two and four per cent of all mothers/caretakers identified fast breathing and difficult breathing, respectively, as the main symptoms that would push them to seek immediate health care for a child at a health facility.

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, Mwingi district, Eastern Province, Kenya 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	16.3	26.8	83.7	3.4	2.7	2.4	4.9	83.3	1.8	153
Primary	22.4	21.3	91.8	1.7	3.2	1.2	4.2	74.3	.9	897
Secondary +	28.0	21.8	93.0	3.0	7.3	4.9	9.3	74.9	1.6	194
Wealth index										
Low	17.6	23.7	89.7	1.3	1.9	.3	3.4	78.3	.6	662
Medium	26.7	18.9	92.4	3.4	4.3	2.1	6.1	70.8	2.1	381
High	30.9	22.4	92.7	2.2	8.8	6.9	8.7	75.3	1.3	202
Total	**22.5**	**22.0**	**91.0**	**2.1**	**3.8**	**1.9**	**5.1**	**75.5**	**1.1**	**1244**

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

Overall, the use of solid fuels for cooking is near universal in Mwingi district, with 97 per cent of the households reportedly using this form of energy. As shown on Table 6.9 (CH.8), all households in the low wealth index use solid fuels. The education level of household head appears to have little effect in the usage of solid fuels, with only a marginal share of households categorised as high wealth index opting for other sources of energy. Use of firewood for cooking is the leading contributor of the high level of solid fuel use; followed by charcoal.

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, Mwingi district, Eastern Province, Kenya 2008

Characteristic	Percentage of households using: Liquefied Petroleum Gas (LPG)	Natural Gas	Kerosene	Char-coal	Wood	Other source	Total	Solid fuels for cooking *	Number of house-holds
Education of household head									
None	1.1	0.5	2.8	6.2	88.9	0.0	100.0	95.1	362
Primary	0.0	0.0	0.6	4.0	94.7	0.7	100.0	98.7	613
Secondary +	0.0	0.4	2.3	12.8	83.7	0.8	100.0	96.5	167
Non standard curriculum	(*)	(*)	(*)	(*)	(*)	0.0	100.0	100.0	9
Wealth index									
Low	0.0	0.0	0.0	0.6	99.4	0.0	100.0	100.0	511
Medium	0.0	0.0	0.2	0.7	98.6	0.5	100.0	99.3	353
High	1.4	.9	5.8	22.0	67.8	1.4	100.0	89.9	287
Total	**0.3**	**0.2**	**1.5**	**6.0**	**91.3**	**0.5**	**100.0**	**97.3**	**1152**

(*) Based on less than 25 un-weighted cases.

6.6 Malaria

Malaria is a known leading cause of death among children below five years in Kenya. It also contributes to anaemia in children and is a common cause of school absenteeism. Preventive measures, especially the use of Insecticide Treated Nets (ITNs), can dramatically reduce malaria infection and 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 MICS 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 among pregnant women. In Mwingi district, the findings indicate that more than half of the households (55 per cent) have at least one insecticide treated net with a similar proportion having at least one net even if it is untreated (Table 6.10 (CH.10) and Figure 6.2). Close to 30 per cent of the households reported to have two or more mosquito nets. The proportion of households with mosquito nets increases with increasing levels of the educational attainment of the household head as well as increasing levels of the household wealth index.

Table 6.10 (CH.10): Availability of Insecticide Treated Nets

Percentage of households with at least one insecticide treated net (ITN), Mwingi district, Eastern Province, Kenya 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	48.6	26.0	47.7	357
Primary	56.0	26.3	55.9	607
Secondary +	68.7	47.7	68.2	178
Non standard curriculum	(*)	(*)	(*)	10
Wealth index				
Low	41.6	16.2	41.6	494
Medium	59.1	33.5	58.5	333
High	71.9	45.2	71.1	325
Total	**55.2**	**29.4**	**54.8**	**1152**

(*): Based on less than 25 un-weighted cases.

Figure 6.2: Percentage of households with at least one treated mosquito net, MICS Mwingi district, 2008

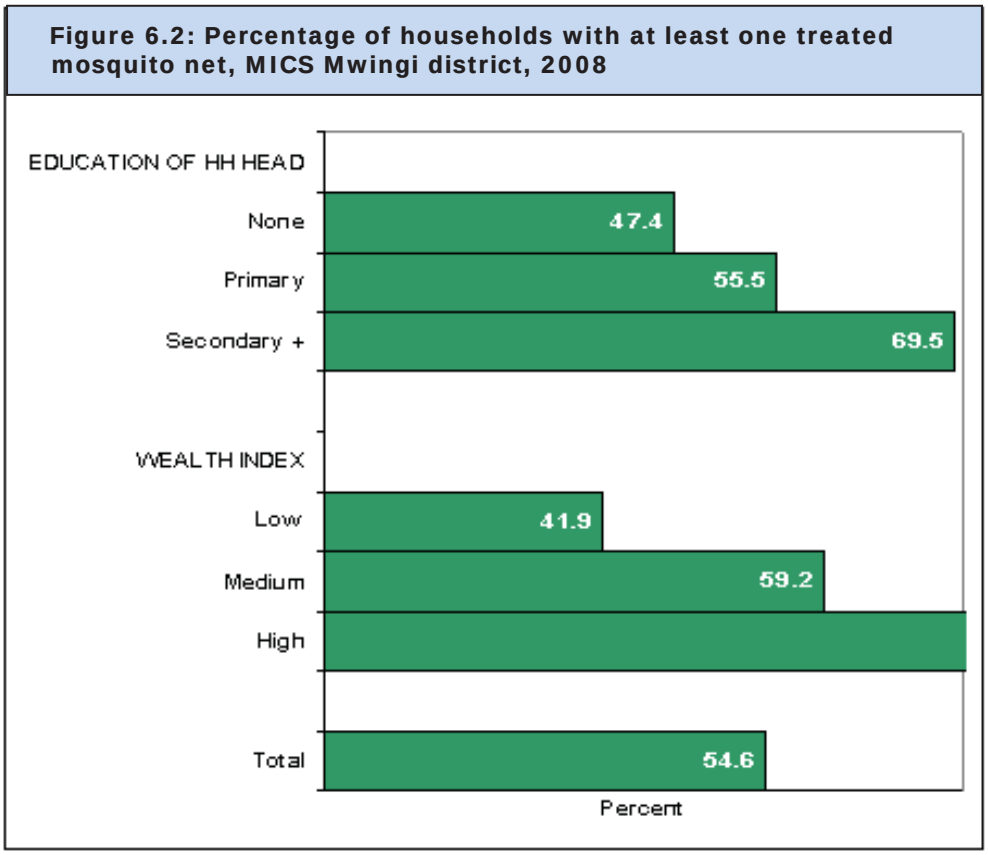


Table 6.11 (CH.11) shows the distribution of children aged 0-59 months that slept under mosquito nets in the night prior to survey. The results indicate that 31 per cent of all children under the age of five years sleep under mosquito net (either treated or untreated). Almost a similar proportion (about 31%) slept under an insecticide treated net. However, nearly 69 per cent of children

under five years did not sleep under any net. There are minimal disparities in ITN use among children below five years by age or sex. However, non-use of mosquito net rises with increasing age of children, while it declines by increasing levels of the household wealth index.

Table 6.11 (CH.11): Children Sleeping Under Bed-nets

Percentage of children aged 0-59 months who slept under mosquito nets in the previous night, Mwingi district, Eastern Province, Kenya 2008

Characteristics	Percentage of children who: Slept under a bed net*	Slept under an insecticide treated net**	Did not sleep under a bed net	Number of children aged 0-59 months
Sex				
Male	30.2	30.0	69.8	647
Female	31.8	31.7	68.2	597
Age				
0-11 months	36.5	37.2	63.5	244
12-23 months	36.9	36.9	63.1	230
24-35 months	27..7	27.7	72.3	262
36-47 months	25.5	25.0	74.5	247
48-59 months	29.1	29.1	70.9	261
Wealth Index Quintiles				
Low	23.8	23.8	76.2	662
Medium	38.3	37.9	61.7	381
High	40.8	40.4	59.2	202
Total	**31.0**	**30.8**	**69.0**	**1244**

Questions on the prevalence and treatment of fever were asked for all children aged less than five years. About one in four (24 per cent) children below five years were ill with fever in the two weeks prior to the survey (Table 6.12 (CH.12)). Mothers were asked to report all the medicines given to a child to treat the fever, including medicines given at home and medicines given or prescribed at a health facility. Overall, only 19 per cent of children with fever in the two weeks prior to the survey were treated with an “appropriate” anti-malarial drug, while 14 per cent received an appropriate anti-malarial drug within 24 hours of onset of symptoms. The proportion of children receiving an appropriate anti-malarial drug within 24 hours of onset of symptoms was highest among children with mothers having education up to secondary or higher and those from high wealth index households.

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

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

			Children with a fever in the last two weeks who were treated with:													
			Anti-malarial:							Other medications:						
Characteristics	Had a fever in last two weeks	Number of children aged 0-59 months	SP/ Fansidar	Chloro-quine	Amodia-quine	Qui-nine	Artemisin based combinations	Other anti-malarial	Any appropriate anti-malarial drug	Paracetamol/ Panadol/ Acetamino-phen	Aspirin	Ibu-profen	Other	Don't know	Any appropriate anti-malarial drug within 24 hours of onset of symptoms*	Number of children with fever in last two weeks
Sex																
Male	23.2	647	3.8	1.2	7.1	0.0	2.9	1.7	16.7	54.6	7.9	10.0	15.5	10.3	12.4	150
Female	23.9	597	3.1	2.4	8.5	0.6	1.2	4.7	20.4	45.4	12.1	8.4	14.4	12.7	16.3	143
Age																
0-11 months	19.8	244	3.4	0.0	11.8	0.0	0.0	1.9	17.1	55.5	9.2	9.9	14.8	5.5	15.5	48
12-23 months	29.3	230	5.1	2.6	7.8	0.0	1.3	7.6	24.5	46.1	11.7	8.1	15.6	15.1	22.0	67
24-35 months	21.9	262	3.9	4.6	1.6	1.4	1.6	1.6	14.7	54.4	9.3	6.1	13.6	5.9	7.7	57
36-47 months	25.8	247	1.5	1.2	11.2	0.0	5.4	2.4	21.7	51.3	7.1	5.6	18.7	12.3	16.6	64
48-59 months	(*)	261	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	56
Mother's education																
None	(*)	153	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	29
Primary	24.0	897	3.5	2.0	5.9	0.0	2.4	1.5	15.3	46.3	10.5	10.7	12.7	12.2	11.1	215
Secondary +	(*)	194	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	48
Wealth index																
Low	21.6	662	2.7	3.0	4.1	0.0	1.8	0.0	11.5	42.8	14.8	7.4	11.9	15.7	9.4	143
Medium	26.4	381	3.6	0.9	9.1	0.8	0.9	4.8	20.1	60.5	5.3	16.3	20.4	5.8	12.5	101
High	(*)	202	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	49
Total	**23.5**	**1,244**	**3.5**	**1.8**	**7.7**	**0.3**	**2.1**	**3.2**	**18.5**	**50.1**	**9.9**	**9.2**	**15**	**11.5**	**14.3**	**293**

(*) Based on less than 25 un-weighted cases.

In this survey, "appropriate" anti-malarial drugs include chloroquine, SP/Fansidar, artemisinin combination drugs, etc. In Mwingi District, four per cent of children with fever were given SP/fansidar while eight per cent were given Amodiaquine. A large proportion of children were given other types of medicines that are not anti-malarials, including anti-pyretics such as paracetamol, aspirin, or ibuprofen. A slight difference was noted between male and female children in the proportion receiving appropriate anti-malarial drugs.

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 getting anemia, having a premature delivery and possibly a stillbirth. Their babies are likely to be of low birth weight, which diminishes their chances of surviving their first year of life. For this reason, deliberate steps have to be taken to protect pregnant women against malaria by distributing insecticide-treated mosquito nets and treating them with drugs that prevent malaria infection (a strategy known as intermittent preventive treatment, or IPT) during antenatal check-ups. During the MICS survey, women were asked about any medicines they had received in their last pregnancy during the two years preceding the survey. Women are considered to have received intermittent preventive therapy if they received at least 2 doses of SP/Fansidar during the term of the pregnancy.

Information on Intermittent preventive treatment for malaria in pregnant women who gave birth in the two years preceding the survey is presented in Table 6.13 (CH.13). Close to 50 per cent (48%) of mothers who delivered a child during this period received medicine to prevent malaria during pregnancy. Slightly over 20 per cent of women in this group received SP/Fansidar only once; six per cent of the women received the same two or more times. Slightly over 10 per cent of the mothers reported that they could not remember if they took such preventive medicine. The proportion of women who received medicine to prevent malaria during pregnancy increased with increasing levels of the woman's education attainment and also improving levels of the household wealth index.

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

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

	Percentage of pregnant women who took:						Number of women who gave birth in prior two years
Characteristics	Medicine to prevent malaria during pregnancy	SP/Fansidar only one time	SP/Fansidar two or more times*	Chloroquine	Other medicines	Don't know	
Education							
None	(32.9)	(8.4)	(5.1)	(1.5)	(5.8)	(12.2)	41
Primary	46.4	19.5	7.2	2.2	4.7	12.8	318
Secondary +	65	39.3	3.3	1.2	13.6	8.9	59
Wealth index							
Low	40.7	17.6	4.2	1.5	5.2	12.1	222
Medium	51.1	21.2	9.3	2.1	7.4	11.1	127
High	64.1	32.8	8.1	3.3	6.5	14.6	69
Total	**47.7**	**21.2**	**6.4**	**2**	**6.1**	**12.2**	**418**

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

7.1 Water

Safe drinking water is a basic necessity for good health. Unsafe drinking water can be a significant carrier of diseases such as trachoma, cholera, typhoid, and schistosomiasis. Drinking water can also be tainted with chemical, physical and radiological contaminants which have harmful effects on human health. In addition to its association with disease, the source of water for drinking and other domestic uses may be particularly important for women and children who bear the primary responsibility for carrying water, often for long distances especially in rural areas.

One of the MDG goals aims at reducing, 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 following indicators were used in MICS to assess the water and sanitation situation:

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

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

The distribution of the population by source of drinking water is shown in Table 7.1(EN.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/bore hole, 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.

Only 20 per cent of the population in Mwingi district is using an improved source of drinking water, primarily from a tap (7 per cent) and tube-well (6.2 per cent). The proportion of the population using an improved source of drinking water increases with educational status of the head of the household as well as by household wealth index. The main source of drinking water is surface water accounting for about 69 per cent of users.

Figure 7.1: Percentage distribution of household members by source of drinking water, MICS, Mwingi district, 2008

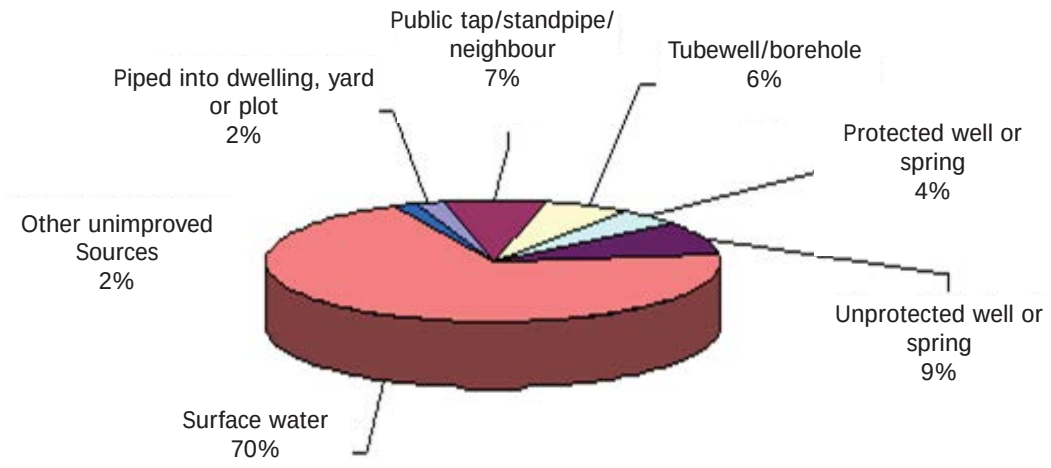


Table 7.1 (EN.1): Use of improved water sources

Percentage distribution of household population according to main source of drinking water and percentage of household population using improved drinking water sources, MICS Mwingi district, 2008

	Main source of drinking water															
	Improved sources							Unimproved sources								
Characteristics	Piped into dwelling	Piped into yard/ plot	Public tap/ stand-pipe	Piped water from neigh-bour	Tube-well/ bore-hole	Pro-tected well	Prote-cted spring	Unpro-tected well	Unpro-tected spring	Tanker truck	Cart with tank/ drum	Surface water	Other	Total	Improved source of drinking water	Number of household members
Education of household head																
None	0.5	4.3	7.4	0.0	4.5	5.0	0.8	11.2	0.0	0.0	0.0	66.1	0.0	100.0	21.7	1,638
Primary	0.0	0.2	7.1	0.4	7.0	3.2	0.0	8.8	0.6	0.2	0.9	71.1	0.1	100.0	15.7	3,219
Secondary +	0.7	2.5	7.3	0.0	6.8	5.0	0.0	4.5	0.0	0.0	0.2	67.7	0.0	100.0	24.2	838
Non-Standard Curriculum	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(6.3)	(0.0)	(0.0)	(0.0)	(93.7)	(0.0)	(0.0)	(0.0)	38
Wealth index																
Low	0.0	0.0	6.9	0.0	5.4	4.0	0.0	5.6	0.6	0.0	0.1	77.5	0.0	100.0	15.3	2,637
Medium	0.0	0.0	6.3	0.7	5.6	2.9	0.0	10.6	0.0	0.0	1.4	72.3	0.1	100.0	12.4	1,808
High	1.2	7.7	9.1	0.0	8.9	5.4	1.0	13.1	0.3	0.5	0.1	48.3	0.0	100.0	33.9	1,288
Total	**0.3**	**1.7**	**7.2**	**0.2**	**6.2**	**4.0**	**0.2**	**8.9**	**0.3**	**0.1**	**0.5**	**69.3**	**0.0**	**100.0**	**18.6**	**5,733**

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

Households were asked about the methods they use to treat water at home to make it safer to drink (i.e. boiling, adding bleach or chlorine, using a water filter, and using solar disinfection were considered as proper treatment of drinking water). The results are presented in Table 7.2.

Nearly one third of households (33 per cent) use an appropriate water treatment method. Sixty six per cent of the households reported that they did not treat their water irrespective of the source. While 23 per cent of the households reported that they boiled their water. Among those using drinking water from unimproved sources, close to 32 per cent use an appropriate water treatment method. While among those using drinking water from improved sources close to 37 per cent use an appropriate water treatment method. The proportions of households using appropriate water treatment method irrespective of the source, increases with increasing levels of the household wealth index and partially by improving levels of the education attainment of the household head.

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 Mwingi 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	Use water filter	Let it stand and settle	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	64.5	22.0	17.2	0.7	0.9	34.6	1638	45.3	371	31.5	1,267
Primary	70.5	22.0	10.5	0.1	0.8	29.1	3219	23.7	578	30.3	2,641
Secondary +	54.7	28.6	24.1	1.7	0.2	45.3	838	55.6	231	41.4	607
Other*	(32.7)	(51.2)	(47.7)	(0.0)	(31.6)	(67.3)	38	0.0	0.0	67.3	38
Wealth index											
Low	81	16.1	3.9	0.1	0.6	18.4	2637	13.4	429	19.4	2,208
Medium	64	23.3	15.6	0.7	1.4	35.4	1808	27.6	267	36.8	1,541
High	39.2	37.5	35.3	1.1	1.0	60.8	1288	62.5	484	59.9	804
Total	**66.2**	**23.2**	**14.7**	**0.5**	**0.9**	**33.3**	**5733**	**36.7**	**1,180**	**32.4**	**4,553**

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

Table 7.3 (EN.3) provides information on the time it takes to obtain water for domestic use. These times refer to one round trip from home to the drinking water source and back, with the mean time to source of drinking water being calculated only for those households that do not have water on their premises.

Five per cent of households have their drinking water source within their premises. For about seven per cent of households, a round trip to collect water takes an average of less than 15 minutes. A similar proportion of households take between 15 and 30 minutes for a round trip to collect water. Majority of households (65 per cent) take more than one hour for a round trip to collect water. The average time to the source of drinking water is estimated as 104 minutes. The proportion of households taking more than one hour to collect water is highest among households from low wealth index households and lowest among those from high wealth index households.

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

Percentage distribution of households according to time to go to source of drinking water, get water and return, and mean time to source of drinking water, MICS Mwingi district 2008

	Time to source of drinking water								
Characteristics	Water on premises	Less than 15 minutes	15 minutes to less than 30 minutes	30 minutes to less than 1 hour	1 hour or more	Don't know	Total	Mean time to source of drinking water*	Number of households
Education of household head									
None	7.9	6.2	5.3	17.5	63.1	0.0	100.0	107.1	362
Primary	2.0	6.2	7.3	16.1	68.1	0.3	100.0	106.6	613
Secondary +	8.4	10.7	10.0	15.8	55.2	0.0	100.0	89.9	167
Other*	(0.0)	(0.0)	(0.0)	(0.0)	(100.0)	(0.0)	(100.0)	107.1	9
Wealth index									
Low	0.3	3.5	4.1	15.9	76.1	0.0	100.0	125.9	511
Medium	0.5	5.9	7.1	16.6	69.4	0.5	100.0	99.4	353
High	17.8	13.7	12.1	16.8	39.6	0.0	100.0	65.6	287
Total	**4.8**	**6.8**	**7.0**	**16.4**	**64.9**	**0.2**	**100.0**	**104.4**	**1,152**

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

Table 7.4 (EN.4) shows that for the majority of households in the district, the responsibility of fetching drinking water usually falls on an adult female person. Adult men collect water in 26 per cent of the cases, while female children and male children collect water in 11 and 10 per cent of all cases, respectively. In 13 per cent of the cases, a child below 15 years of age together with an adult female were responsible for water collection. The proportion of adult women collecting water declined with increasing levels of the household wealth index. For example, in 89 per cent of households from low wealth index, an adult woman was responsible for collect water versus only 66 per cent for those from high wealth index households.

Table 7.4 (EN.4): Person Collecting Water

Percentage distribution of households according to the person collecting drinking water used in the household, MICS Mwingi district, 2008

Characteristics	Person collecting drinking water*								Number of households
	Adult woman	Adult man	Female child under age 15	Male child under age 15	Adult woman and child	Adult man and child	Adult man and woman	Don't know	
Education of household head									
None	80.6	24.9	13.2	9.7	13.7	6.9	15.3	0.0	362
Primary	86.4	24.9	10.6	9.6	13.9	5.2	14.9	0.0	613
Secondary +	70.9	32.4	7.6	8.6	11.0	7.3	13.8	0.0	167
Non-standard curriculum	(79.7)	(34.8)	(.0)	(14.5)	(14.5)	(14.5)	(14.5)	(0.0)	9
Wealth index									
Low	88.5	24.4	10.7	9.8	12.8	4.9	15.6	0.0	511
Medium	86.9	25.3	11.8	9.3	14.9	6.9	14.7	0.0	353
High	65.5	30	10.2	9.4	12.8	7.4	13.7	0.0	287
Total	**82.3**	**26.1**	**10.9**	**9.5**	**13.4**	**6.1**	**14.9**	**0.0**	**1,152**

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

7.2 Sanitation

Improper 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, flush to septic tank, or to a latrine; ventilated improved pit latrine, pit latrine with slab, and composting toilet.

Only about 15 per cent of the population use improved sanitation facilities (Table 7.5 (EN.5). About 34 per cent of the households use pit latrines without slab while about 46 per cent of the population have no toilet facility. The proportion without toilets is higher among low wealth index households. While the proportion of households using sanitary means of excreta disposal increases with increasing levels of the household wealth index.

Table 7.5 (EN.5): Use Of Sanitary Means of Excreta Disposal

Percentage distribution of households according to type of toilet facility used, and the percentage of households using sanitary means of excreta disposal, MICS Mwingi district, 2008

	Type of toilet facility used by household										
	Improved sanitation facility				Unimproved sanitation facility						
	Flush/pour flush to:										
Characteristics	Piped sewer system	Pit latrine	Ventilated improved pit latrine	Pit latrine with slab	Pit latrine without slab/open pit	Pit latrine with slab and cover	Other	No facility/ bush/field	Total	Percentage using sanitary means of excreta disposal*	Number of household members
Education of household head											
None	0.1	0.0	3.2	10.0	32.6	5.4	1.4	47.4	100.0	18.6	1,638
Primary	0.0	0.0	1.4	10.3	34.0	2.4	0.9	51.1	100.0	14.1	3,219
Secondary +	0.0	0.7	11.0	17.8	36.6	6.3	0.0	27.5	100.0	35.9	838
Non-standard curriculum.			(0.0)	(0.0)	(49.4)	(31.6)	(0.0)	(19.0)	100.0	(31.6)	38
Wealth index											
Low	0.0	0.0	0.0	1.8	14.7	0.4	0.6	82.6	100.0	2.2	2,637
Medium	0.0	0.0	0.8	15.6	54.7	2.3	1.9	24.7	100.0	18.7	1,808
High	0.3	0.5	13.6	24.3	44.8	13.9	0.0	2.7	100.0	52.5	1,288
Total	**0.1**	**0.1**	**3.3**	**11.2**	**34.1**	**4.0**	**0.9**	**46.4**	**100.0**	**18.7**	**5,733**

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

Safe disposal of a child's faeces refers to rinsing the stool into a toilet or latrine, or disposing off the stool by letting the child use a toilet facility. Information on disposal of children's faeces is presented in Table 7.6 (EN.6). Only about 40 per cent of young children in Mwingi district are reported to have had their stool disposed off safely. Almost all these children had their stool rinsed into a toilet or latrine. The proportion of children's stools disposed off safely increased with increasing levels of the mother's education attainment and also by increasing levels of the household wealth index.

Table 7.6 (EN.6): Disposal of Children'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 Mwingi district, 2008

	Place of disposal of child's faeces										
Characteristics	Child used toilet	Put/rinsed into toilet or latrine	Put/ rinsed into drain or ditch	Thrown into garbage	Buried	Left in the open	Other	Don't know/ missing	Total	Proportion whose stools are disposed of safely	Number of children aged 0-2 years
Mother's education											
None	0.0	23.8	23	10.1	8.6	4.3	30.2	0.0	100.0	23.8	80
Primary	1.6	34.1	22.3	5.3	6.8	6.0	23.5	0.5	100.0	35.7	555
Secondary +	2.8	65.3	7.2	2.7	6.1	4.4	10.9	0.6	100.0	68.1	127
Wealth index											
Low	0.5	11.3	28.3	7.0	10.0	7.1	35.2	0.5	100.0	11.8	402
Medium	2.3	60.6	13	4.1	3.4	4.4	11.5	0.6	100.0	62.9	235
High	4.3	82.3	5.4	2.2	3.2	2.6	0.0	0.0	100.0	86.6	125
Total	**1.6**	**38.2**	**19.8**	**5.3**	**6.9**	**5.5**	**22.1**	**0.5**	**100.0**	**39.8**	**762**

A comparison of the proportion of households using improved sources of drinking water and sanitary means of excreta disposal is presented in Table 7.7 (EN.7). The share of households using improved sources of drinking water and sanitary means of excreta disposal is about 11 per cent. The proportion of households using improved sources of drinking water and sanitary means of excreta disposal increases with educational level of the head of the household as well as improving levels of the household wealth index. For instance, less than two per cent of households from low wealth index households reported using improved sources of drinking water and sanitary means of excreta disposal versus 32 per cent for those from high wealth index households.

Table 7.7 (EN.7): Use of Improved Water Sources and Improved Sanitation

Proportion of households using both improved drinking water sources and sanitary means of excreta disposal, MICS Mwingi district, Eastern Province, Kenya 2008

Characteristics	Percentage of household population: Using improved sources of drinking water	Using sanitary means of excreta disposal	Using improved sources of drinking water and sanitary means of excreta disposal	Number of household members
Education of household head				
None	22.6	46.3	12.2	1,638
Primary	18.4	45.9	7.0	3,219
Secondary +	27.6	66.1	21.2	838
Non-standard curriculum	(0.0)	(49.4)	(0.0)	38
Wealth index				
Low	16.3	16.5	1.3	2,637
Medium	15.5	71.4	8.7	1,808
High	37.6	84.1	31.9	1,288
Total	**20.8**	**49.0**	**10.5**	**5,733**

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

Reproductive Health 8

This chapter presents information on fertility, marriage, contraception, unmet need for contraceptives and antenatal care.

8.1 Fertility

Achievement of many national development goals is directly linked to the fertility and resources available to support a country's health programmes. Studies have shown that in most developing countries there is a scarcity of resources required to support the population and hence it is very important to control population growth.

In MICS, birth histories from women aged 15-49 years from the sampled households were collected in order to estimate the fertility level in Mwingi 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.1) presents estimates of current fertility levels in the district for the three-year period preceding the survey which corresponds to the period from mid-2005 to mid-2008. Current fertility is given using measures such as age-specific fertility rates (ASFRs) and total fertility rate (TFR). ASFRs are calculated by dividing the number of births to women in a specific age group by the number of women years lived during a given period. On the other hand, 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.

Table 8.1 (RH.1): Current Fertility

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

Age group	Total
15-19	**84**
20-24	**276**
25-29	**287**
30-34	**196**
35-39	**143**
40-44	**87**
45-49	**15**
TFR	**5.4**

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

The total fertility rate in Mwingi district is currently estimated at 5.4 children per woman for the three year period preceding the survey (mid-2005 to mid 2008). Unlike most areas where fertility is highest in the age group 20-24 years, the fertility rate in Mwingi district peaks at the 25-29 years age group. An analysis of the age-specific fertility rates shows that slightly over 50 per cent of the total fertility rate is contributed by women aged 20-29 years, while the contribution of older women (aged 40-49 years) is less than 10 per cent. The contribution of adolescent age group, i.e., 15-19 years to total fertility is eight per cent.

Table 8.2(RH.2) presents the percentage distribution of all women and those currently married by number of children ever born and living. It provides information on lifetime fertility. The mean number of children ever born to all women aged 15-49 years is 4.4, while the mean number of surviving children is 4. The mean number of children ever born to currently married women is 4.3. About eight per cent of currently married women aged 40-49 years have never had live births. The proportion of currently married women with no children in this age group is a proxy indicator for the level of infertility. This indicates a high level of infertility among women in the district. Slightly more than 40 per cent of currently married women aged 45-49 years have eight or more children ever born.

Table 8.2 (RH.2): Children Ever- born and Living

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

Age group	Number of children ever born										Number of women	Mean number of children	
	0	1	2	3	4	5	6	7	8+	Total		Ever born	Living
						All women							
15-19	88.4	10.7	0.6	0.3	0.0	0.0	0.0	0.0	0.0	100.0	266	1.1	1.1
20-24	34.0	23.2	24.3	12.0	5.1	1.1	0.0	0.0	0.2	100.0	249	2.1	2.0
25-29	9.4	17.5	18.3	22.0	20.7	7.2	3.2	1.7	0.0	100.0	189	3.0	2.8
30-34	1.0	5.8	14.5	16.0	20.1	21.7	13.0	5.9	1.9	100.0	190	4.2	3.9
35-39	1.3	2.5	2.0	10.4	17.3	16.3	16.8	14.4	19.0	100.0	148	5.8	5.3
40-44	5.4	1.4	2.1	12.0	5.8	11.5	13.3	15.2	33.3	100.0	100	7.0	6.2
45-49	1.8	0.0	5.2	9.1	14.9	14.4	7.6	6.3	40.7	100.0	82	7.9	7.2
Total	**28.4**	**11.1**	**10.9**	**11.2**	**10.9**	**8.6**	**6.1**	**4.6**	**8.1**	**100.0**	**1,223**	**4.4**	**4.0**
						Currently Married Women							
15-19	(32.6)	(61.9)	(3.0)	(2.5)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(100.0)	28	0.8	0.7
20-24	9.8	25.1	37.6	17.3	8.0	1.9	0.0	0.0	0.4	100.0	141	2.0	1.9
25-29	2.6	15.2	17.4	26.7	25.0	7.9	3.6	1.7	0.0	100.0	148	3.1	2.8
30-34	1.2	4.9	12.2	15.6	21.1	21.5	15.0	6.5	2.2	100.0	164	4.3	4.0
35-39	1.5	0.0	2.3	9.7	16.2	18.5	14.9	16.2	20.8	100.0	127	5.9	5.4
40-44	5.6	2.1	0.0	4.3	4.0	14.7	17.0	15.9	36.5	100.0	70	7.0	6.4
45-49	2.2	0.0	3.3	5.6	18.8	14.2	8.6	6.6	40.8	100.0	65	7.8	7.0
Total	**4.8**	**11.4**	**14.1**	**14.7**	**15.9**	**12.4**	**8.9**	**6.6**	**11.1**	**100.0**	**743**	**4.3**	**4.0**

8.2 Teenage Pregnancy and Motherhood

Reducing the pregnancy among adolescents is one of the flagship programs of Government of Kenya. Information regarding teenage pregnancy and motherhood is presented in Table 8.3 (RH.3) by selected background characteristics. Twelve per cent of women aged 15-19 years have given birth to at least one child, while two per cent are currently pregnant with the first child. As expected, the proportion of teenage women who have ever given birth increases with age, which also applies to the proportion of those who have began childbearing.

Table 8.3 (RH.3): 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 Mwingi district, Eastern Province, Kenya 2008

Characteristic	Percentage who		Percentage who have began child bearing	Number of women
	Have had a live birth	Are pregnant with first child		
Age				
15	(*)	(*)	(*)	54
16	(3.7)	(0.0)	(3.7)	72
17	(11.7)	(5.8)	(17.5)	40
18	22.4	2.9	25.2	51
19	21.8	4.8	26.6	48
Education				
None	0.0	0.0	0.0	4
Primary	13.0	1.7	14.7	220
Secondary +	5.3	5.5	10.8	42
Wealth index				
Low	13.0	1.3	14.3	111
Medium	11.0	2.6	13.6	88
High	10.0	3.5	13.5	66
Total	**11.6**	**2.3**	**13.8**	**266**

( ): Based on un-weighted cases. 25-50
(*): Based on less than 25 un-weighted cases.

8.3 Contraception

Access to appropriate family planning is important to the health of women and children by: (1) preventing pregnancies that are unwanted; (2) spacing the period between desired births; (3) limiting the number of children. Elements of family planning – specifically condoms – are also beneficial in reducing the risk of sexually transmitted diseases which can undermine reproductive capability and threaten the health of a foetus. A World Fit for Children goal is to ensure access by all couples to information and services to prevent pregnancies that are too early, too closely spaced, too late or too many.

Information on current use of contraception among currently married women of reproductive age is presented in Table 8.5 (RH.4). About 47 per cent of the currently married women or in union are using any method of contraception. About 32 per cent of currently married women use any modern method with 15 per cent relying on traditional methods. The most popular method is the injection (20 per cent) followed by Lactational Amenorrhoea Method (LAM) at 15 per cent.

The use of any modern method of contraception rises from about 18 per cent among women aged 15-19 years to about 39 per cent among women in the age group 35-39 years. However, younger women (age 15-19) are the highest users of traditional methods (23 per cent). However, the use of injections is still common among the younger women. The proportion of women using any modern contraception increases with increasing levels of education and also by household wealth index.

Table 8.5 (RH.4): 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, Mwingi district, Eastern Province, Kenya 2008

Characteristics	Not using any method	Percent of women (currently married or in union) who are using: Female sterilization	Pill	IUD	Injections	Implants	Condom	Diaphragm/ foam/ jelly	LAM	Other	Total	Any modern method	Any traditional method	Any method*	Number of women
Age															
15-19	59.4	0.0	2.7	0.0	12.6	0.0	0.0	2.7	22.6	0.0	100.0	17.9	22.6	40.6	28
20-24	(58.1)	(0.0)	(6.3)	(0)	(21.3)	(0.0)	(0.0)	(2.5)	(11.9)	(0.0)	100.0	(30.1)	(11.9)	(41.9)	141
25-29	56.3	0.6	5.5	0.5	17.8	0.5	0.4	1.1	17.3	0.0	100.0	26.4	17.3	43.7	148
30-34	47.9	2.9	8.3	0.0	25.0	0.0	0.0	2.2	13.7	0.0	100.0	38.4	13.7	52.1	164
35-39	42.3	3.6	9.4	0.0	23.5	0.0	1.7	1.2	17.7	0.6	100.0	39.4	18.3	57.7	127
40-44	56.1	3.9	3.3	2.6	18.0	0.0	0.0	1.5	14.5	0.0	100.0	29.4	14.5	43.9	70
45-49	64.8	15.8	1.1	0.0	6.9	0.0	0.0	0.0	11.3	0.0	100.0	23.9	11.3	35.2	65
Number of living children**															
0	(91.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(9)	(0.0)	100.0	(0)	(9)	(9)	42
1	57.0	0.0	6.2	0.0	17.2	0.0	0.6	4.4	14.6	0.0	100.0	28.4	14.6	43	98
2	49.7	0.0	10.6	0.0	21.3	0.0	0.0	0.7	17.7	0.0	100.0	32.6	17.7	50.3	104
3	43.1	1.8	7.9	0.6	30.1	0.6	0.0	1.6	14.3	0.0	100.0	42.5	14.3	56.9	123
4+	52.4	5.6	5.2	0.5	19.1	0.0	0.6	1.4	15.1	0.2	100.0	32.3	15.3	47.6	376
Education															
None	53.2	6.9	6.0	0.0	9.9	0..0	0.6	1.7	21.7	0.0	100.0	25.2	21.7	46.8	98
Primary	54.9	2.2	5.5	0.5	19.3	0.1	0.4	1.6	15.4	0.1	100.0	29.6	15.5	45.1	526
Secondary+	45.1	3.9	10.0	0.0	31.4	0.0	0.0	2.0	7.6	0.0	100.0	47.3	7.6	54.9	117
Non-Standard Curriculum	(100.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(100.0)	(0.0)	(0.0)	(0.0)	2
Wealth index															
Low	61.6	0.7	1.6	0.6	13.3	0.0	0.0	2.6	19.4	0.2	100.0	18.8	19.7	38.4	312
Medium	51.0	5.6	7.6	0.0	21.8	0.3	0.8	0.6	12.3	0.0	100.0	36.7	12.3	49.0	263
High	41.3	3.7	12.6	0.4	29.2	0.0	0.4	1.6	10.9	0.0	100.0	47.9	10.9	58.7	168
Total	**53.2**	**3.1**	**6.2**	**0.3**	**19.9**	**0.1**	**0.4**	**1.6**	**14.9**	**0.1**	**100.0**	**31.7**	**15.0**	**46.8**	**743**

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

Note: Male sterilization, female condoms and withdrawal method are used by less than 0.05 percent and are not shown.

8.4 Unmet Need

Unmet need for contraception[7] refers to fecund women who are not using any method of contraception, but 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 behaviour and preferences pertaining to contraceptive use, fecundity and fertility.

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

Women with an unmet need for limiting are those who are currently married (or in union) and are fecund (are currently pregnant or think that they are physically able to become pregnant), are 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 a child.

Total unmet need for contraception is simply the sum of unmet need for spacing and unmet need for limiting.

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

Table 8.6 (RH.5) shows the results of the Mwingi district survey on contraception, unmet need and the demand for contraception that is satisfied. The proportion of current use of contraception is 47 per cent. The proportion of women currently using contraception increases with increasing levels of woman's education and household wealth index. Unmet need is mostly for spacing as opposed to limiting in Mwingi district. The overall level of unmet need for contraception is estimated at seven per cent. Approximately 87 per cent of the total demand for contraception is satisfied.

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

Table 8.6 (RH.5): 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 Mwingi district, Eastern Province, Kenya 2008

Characteristics	Current use of contraception	Unmet need for contraception			Number of women currently married or in union	Percentage of demand for contraception satisfied**** *	Number of women currently married or in union with need for contraception
		For spacing **	For limiting ***	Total ****			
Age							
15-19	(*)	(*)	(*)	(*)	28	(*)	14
20-24	41.9	6.8	0.9	7.8	141	84.4	70
25-29	43.7	5.9	2.1	8.0	148	84.4	77
30-34	52.1	4.5	4.4	8.9	164	85.4	100
35-39	57.7	1.9	3.4	5.3	127	91.6	80
40-44	43.9	1.9	2.8	4.7	68	90.3	34
45-49	(*)	(*)	(*)	(*)	65	(*)	23
Education							
None	(46.8)	(2.1)	(3.0)	(5.1)	98	(90.2)	51
Primary	45.1	4.8	2.0	7.4	526	85.9	276
Secondary +	54.9	4.6	1.0	5.6	117	90.7	71
Non-standard curriculum	(*)	(*)	(*)	(*)	1	(*)	0
Wealth index							
Low	38.4	5.4	3.2	8.6	312	81.7	147
Medium	49.0	4.9	2.5	7.5	263	86.8	148
High	58.7	1.8	0.7	2.5	168	96.0	103
Total	**46.8**	**4.4**	**2.4**	**6.8**	**743**	**87.3**	**398**

( ): Based on un-weighted cases. 25-50
(*): Based on less than 25 un-weighted cases.
** Unmet need for spacing is defined as women who are fecund and not currently using contraception and want to space their births.
*** Unmet need to limit is defined as women who are fecund and not currently using contraception and want to limit their births.
***** Proportion of demand satisfied is defined as the proportion of currently married or in union women who are currently using contraception of the total demand for contraception.

8.5 Antenatal Care

The antenatal period presents important opportunities for reaching pregnant women with a number of interventions that may be vital to their health and well-being and that of their baby. Better understanding of foetal growth and development and its relationship to the mother's health has resulted in increased attention to the potential of antenatal care as an intervention to improve both maternal and newborn health.

The antenatal period provides an opportunity:

- To supply information on birth spacing, which is recognized as an important factor in improving infant survival,
- To administer tetanus immunization during pregnancy,
- For prevention and treatment of malaria among pregnant women, and management of anaemia during pregnancy; and
- For treatment of STIs which can significantly improve foetal outcomes and improve maternal health.

Adverse outcomes such as low birth weight can be reduced through a combination of these 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.

The World Health Organization (WHO) recommends a minimum of four antenatal visits based on a review of the effectiveness of different models of antenatal care. WHO guidelines are also specific on the content of antenatal care visits, which include:

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

The type of personnel providing antenatal care to women aged 15-49 years who gave birth in the two years preceding the survey is presented in Table 8.7 (RH.6). The coverage of antenatal care by any skilled personnel (a doctor, nurse, or midwife) is relatively high with 94 per cent of women receiving antenatal care from such personnel at least once during their pregnancy. Six per cent of the women sought no care, and these were mainly older women with lower levels of education, and mostly from low wealth index households. For a largely rural district like Mwingi, it is encouraging that a large proportion of women seeking antenatal care are attended to by a doctor (67 per cent) compared to a mere 28 per cent who saw a mid-wife or nurse.

Table 8.7 (RH.6): 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 Mwingi district, Eastern Province, Kenya 2008

	Person providing antenatal care**			No antenatal care	Total	Antenatal care by any skilled personnel*	Number of women who gave birth in the preceding two years
Characteristics	Medical doctor	Nurse/ midwife	Other				
Age							
15-19	(59.4)	(38.3)	(0.0)	(2.3)	(100.0)	(97.7)	26
20-24	71.9	24.3	0.0	3.8	100.0	96.2	127
25-29	64.7	29.2	0.0	6.2	100.0	93.8	108
30-34	68.4	26.2	0.0	5.4	100.0	94.6	81
35-49	61.5	28.1	1.0	9.5	100.0	89.5	77
Education							
None	61.1	31.5	0.0	7.3	100.0	92.7	41
Primary	68.8	24.9	0.0	6.3	100.0	93.7	318
Secondary +	59.0	38.5	1.3	1.3	100.0	97.5	59
Wealth index							
Low	67.1	25.6	0.0	7.3	100.0	92.7	222
Medium	69.0	25.5	0.6	5.0	100.0	94.5	127
High	61.2	37.1	0.0	1.7	100.0	98.3	69
Total	**66.7**	**27.5**	**0.2**	**5.7**	**100.0**	**94.1**	**418**

( ): Based on un-weighted cases. 25-50
* Skilled health personnel include doctors, nurses, midwives, and auxiliary midwives.
** If the respondent mentioned more than one provider, only the most qualified provider is considered

Table 8.8 (RH.7) shows the distribution of pregnant women by type of services received during the antenatal care visit. Among women who gave birth during the two years preceding the

survey, 75 per cent reported that their blood sample was taken during antenatal care visits, 73 per cent reported that their blood pressure was checked, 48 per cent had urine specimen taken and 87 per cent had their weight measured. Younger pregnant women are more likely to receive most of the recommended services compared to older women. The proportion of women receiving any one of the four recommended services increased with increasing levels of the woman's education and also by household wealth index.

Table 8.8 (RH.7): Antenatal Care

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

Characteristics	Percentage of pregnant women receiving ANC one or more times during pregnancy	Percentage of pregnant women who had:				Number of women who gave birth in two years preceding survey
		Blood test taken*	Blood pressure measured*	Urine specimen taken*	Weight measured*	
Age						
15-19	(97.7)	(71.8)	(75.4)	(51.1)	(85.8)	26
20-24	96.2	81.8	74.0	55.8	90.6	127
25-29	93.8	75.9	71.5	47.2	86.2	108
30-34	94.6	77.7	72.2	50.0	89.4	81
35-49	90.5	62.3	74.6	33.3	80.4	77
Education						
None	(92.7)	(82.6)	(76.9)	(53.4)	(88.5)	41
Primary	93.7	71.1	69.0	42.7	85.4	318
Secondary +	98.7	92.8	93.4	72.7	94.9	59
Wealth index						
Low	92.7	66.8	67.6	36.8	84.2	222
Medium	95.0	82.8	75.5	54.6	86.9	127
High	98.3	88.8	86.9	72.1	96.3	69
Total	**94.3**	**75.3**	**73.2**	**48.0**	**87.0**	**418**

( ): Based on un-weighted cases. 25-50
* Proportions are calculated separately: Total number of women weighed, blood pressure measured, gave urine sample, and, gave blood sample.

8.6 Assistance at Delivery

Three quarters of all maternal deaths occur either during delivery or during the immediate post-partum period. The single most critical intervention for safe motherhood is to ensure that a competent health worker with midwife skills is present at every delivery, and that transport is available to a referral facility for obstetric care in case of an emergency. An important goal for A World Fit for Children is to ensure that women have ready and affordable access to skilled attendance at delivery. The indicators used to assess this 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 Goal target of reducing the maternal mortality ratio by three quarters between 1990 and 2015.

The current survey (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.

About four in five (39 per cent) women who gave birth in the two years preceding the survey delivered with the assistance of skilled personnel (Table 8.9 (RH.5). The proportion of women who delivered with the assistance of skilled personnel increased with increasing levels of education attainment and also by household wealth index. For example, 61 per cent of women from the high wealth index household delivered with the assistance of the skilled personnel versus only 30 per cent among women from the low wealth index households. Medical doctor (21 per cent) followed by nurses or midwifes (18 per cent) were the most common skilled personnel that offered delivery assistance. Traditional birth attendants still offer a substantial level of delivery assistance in Mwingi district (13 per cent).

The Mwingi MICS also probed for the place of delivery since the government's strategy for reducing maternal mortality is not only to encourage attendance at antenatal clinics, but also promote facility deliveries. The findings show that only 38 per cent of the women aged 15-49 delivered in a health facility. The proportion of facility deliveries increases with increasing levels of women's education and also by household wealth index. Facility deliveries also appear to be more prevalent among young mothers.

Table 8.9 (RH.8): 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 Mwingi district, Eastern Province, Kenya 2008

	Person assisting at delivery										
Characteristics	Medical doctor	Nurse/ mid-wife	Tradi-tional birth atten-dant	Comm-unity health worker	Rela-tive friend	Other	No atten-dant	Total	Any skilled perso-nnel*	Deliv-ered in health facility	Number of women who gave birth in last 2 years
Age											
15-19	(28.8)	(28.1)	(13.8)	(0.0)	(29.3)	(0.0)	(0.0)	(100.0)	(56.9)	(57.8)	26
20-24	28.3	18.8	11.4	0.0	26.5	10.8	4.2	100.0	47.1	46.6	127
25-29	17.1	14.7	14.6	0.0	33.6	10.9	9.2	100.0	31.8	27.4	108
30-34	15.2	19.3	15.5	0.9	29.6	10.3	9.1	100.0	34.5	33.8	81
35-49	18.8	14.4	12.2	0.9	28.9	11.6	13.2	100.0	33.1	33.9	77
Education											
None	(33.7)	(16.2)	(7.3)	(0.0)	(25.3)	(4.7)	(12.7)	(100.0)	(49.9)	(55.1)	41
Primary	20.2	13.6	14.6	0.5	31.0	12.2	8.0	100.0	33.7	32.0	318
Secondary+	17.7	40.2	10.3	0.0	24.8	3.5	3.5	100.0	57.9	55.1	59
Wealth index											
Low	18.3	11.2	13.0	0.0	33.2	12.6	11.6	100.0	29.5	29.8	222
Medium	21.0	21.6	13.0	1.1	30.6	8.8	3.7	100.0	42.7	39.5	127
High	30.5	30.6	14.9	0.0	15.8	5.1	3.1	100.0	61.1	58.6	69
Total	**21.1**	**17.6**	**13.3**	**0.3**	**29.6**	**10.2**	**7.8**	**100.0**	**38.7**	**37.5**	**418**

( ):Based on un-weighted cases. 25-50
* Skilled health personnel include doctors, nurses, midwives, and auxiliary midwives.

9.1 Child learning

It is well recognized that a period of rapid brain development occurs in the initial three to four years of life, with the quality of home care being 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. This 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.

In Mwingi district survey, slightly more than half of all children below five years (55 per cent), a household member engaged in at least four activities that promote learning and school readiness (Table 9.1 (CD.1)). Engagement in at least four activities that promote learning and school readiness among children was marginally higher for females (57 per cent) than males (52 per cent), and clearly increased with increasing levels of mother's education and partly with increasing levels of household wealth index.

The average number of activities that adults engaged with children was about four, and this average was comparable by child gender, education of the mother/father and by household wealth index. Besides household member's involvement, the MICS survey sought to examine the separate involvement of fathers in children's activities. On average fathers involvement with children in activities that promote learning and school readiness was about 19 per cent. Father's level of involvement increased with increasing levels of mother's education, and partly by household wealth index. On average, father's involvement was limited to less than one activity (mean of 0.5), meaning that much of the interaction with children from household members was from other household members. This is also partially supported by the finding that on average, 48 per cent of children lived in a household without their natural father.

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 Mwingi district, Eastern Province, Kenya 2008

	Percentage of children aged 0-59 months					
Characteristics	For whom household members engaged in four or more activities that promote learning and school readiness*	Mean number of activities household members engage in with the child	For whom father engaged in one or more activities**	Mean number of activities the father engaged in with the child	Living in a household without their natural father	Number of children aged 0-59 months
Sex						
Male	52.3	3.5	18.5	0.4	46.2	647
Female	56.9	3.7	19.1	0.5	49.9	597
Age						
0-23 months	23.6	2.3	13.9	0.3	46.5	494
24-59 months	74.9	4.5	22.0	0.6	49.0	750
Mother's education						
None	48.8	3.4	20.0	0.5	45.8	153
Primary	53.9	3.5	16.5	0.4	47.5	897
Secondary +	62.2	4.1	28.6	0.8	52.1	194
Father's education						
None	58.7	3.8	35.3	0.9	0.0	79
Primary	53.7	3.6	34.1	0.8	0.0	463
Secondary +	54.4	3.4	37.3	0.8	0.0	105
Father not in HH	54.7	3.6	1.5	0.0	100.0	597
Wealth index						
Low	48.7	3.4	17.0	0.4	45.7	662
Medium	61.9	3.9	21.3	0.5	50.0	381
High	59.7	3.8	20.1	0.5	51.9	202
Total	**54.5**	**3.6**	**18.8**	**0.5**	**48.0**	**1,244**

* 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 for school. One of A World Fit for Children's goals (Goal 2) is the promotion of early childhood education.

The Mwingi MICS results show that 30 per cent of children aged 36-59 months are attending pre-school (Table 10.1 (ED.1)). The male attendance rate (32 per cent) was marginally greater than that for the female children (29 per cent). The proportion attending pre-school nearly doubles between the low and high wealth indices (23 against 38 per cent respectively). As expected, the proportion of children from the younger age group (36-47 months) attending school was lower (17 per cent) than that for the older age group (48-59 month) at 45 per cent. The findings additionally provide an idea of transition from pre-school to standard one in primary school. Nearly 87 per cent of the children who are currently attending standard one had gone through pre-school the previous year.

Table 10.1 (ED.1): Early childhood education

Percentage of children aged 36-59 months who are attending some form of pre-school education programme and percentage of pupils in standard one who attended pre-school, MICS Mwingi district, Eastern Province, Kenya 2008

Characteristics	Percentage of children aged 36-59 months currently attending early childhood education	Number of children aged 36-59 months	Percentage of children attending standard one who attended preschool program in previous year	Number of children attending standard one
Sex				
Male	32.4	237	(90.6)	21
Female	28.6	254	85.9	45
Age of child				
36-47 months	16.5	253	.	0
48-59 months	45.2	239	.	0
6 years*	0.0	0	87.4	66
Mother's education				
None	22.5	64	(*)	15
Primary	28.1	362	(79.7)	37
Secondary +	51.3	65	(*)	13
Wealth index				
Low	23.2	262	(88.6)	25
Medium	38.8	152	(82.5)	27
High	38.4	77	(*)	14
Total	**30.4**	**492**	**87.4**	**66**

Primary school entry age should be defined at the country level (usually based on UNESCO's ISCED1 classification). Here, it is assumed that primary education starts at age 6.
( ): Figures in parentheses are based on 25-49 unweighted cases
(*): an asterisk indicate that a figure is based on fewer than 25 unweigted cases

10.2 Primary and Secondary School Participation

Universal access to basic education and the achievement of full primary education by the world's children is one of the most important goals of the Millennium Development Goals (Goal 2, target 3) and A World Fit for Children. Education is a vital prerequisite for combating poverty, empowering women, protecting children from hazardous/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 for school progression include:

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

Table 10.2 (ED.2) shows the distribution of primary school age children (six years old) in the district at the time of survey. Among children who are of primary school entry age in Mwingi district, 44 per cent are attending standard 1 of primary school. More female children are attending standard one (62 per cent) than male children (27 per cent). Attending school seems to increase with increasing levels of household wealth index. For example, about 32 per cent of children from low wealth index households were attending standard one compared to 58 per cent for children from medium wealth index households.

Table 10.2 (ED.2): Primary school entry

Percentage of children of primary school entry age (6 years old) attending standard one, MICS Mwingi District, Eastern Province, Kenya 2008

Characteristics	Percentage of children of primary school entry age currently attending grade 1	Number of children of primary school entry age
Sex		
Male	26.7	86
Female	62.3	82
Mother's education		
None	(53.8)	29
Primary	37.0	118
Secondary +	(70.9)	21
Wealth index		
Low	32.1	86
Medium	58.4	53
High	(53.6)	29
Total	**44.1**	**168**

( ) Figures in parentheses are based on 25-49 un-weighted cases

Table 10.3 (ED.3) provides the percentage distribution of children of primary school age attending primary or secondary school. The majority of children of primary school age in the district are attending school (86 per cent). However, 15 per cent of the children are out of school when they

are expected to be in school. Female children have a slight advantage over their male counterparts, with attendance rates of 89 for females versus 82 per cent for males. For both male and female children the proportion attending school increases with mother's level of education as well as by increasing levels of the household wealth index.

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

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

	Net attendance ratio*			Number of children		
Characteristics	Male	Female	Total	Male	Female	Total
Age						
6	28.9	63.2	45.7	86	82	168
7	66.9	80.5	73	97	79	176
8	81.9	76.9	79.6	90	77	167
9	94.5	93.5	94	83	87	170
10	96.3	99.1	97.6	92	78	170
11	100	100	100	89	86	175
12	99.2	99.1	99.1	85	80	165
13	90.6	99.4	95.6	74	97	171
Mother's education						
None	78.6	91.4	85.1	142	149	292
Primary	81.2	87.3	84.1	475	435	910
Secondary +	93.3	96.7	95	78	81	159
Wealth index						
Low	75.8	84.5	79.9	336	304	640
Medium	85.7	90.8	88.2	223	210	433
High	91.5	97.1	94.4	136	153	289
Total	**82**	**89.4**	**85.6**	**695**	**666**	**1362**

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

The secondary school net attendance ratio is presented in Table 10.4 (ED.4). Only 13 per cent of the children aged 14-17 are attending secondary school with female children being more advantaged than their male counterparts. This suggests a very low primary to secondary transition rate given that primary attendance had averaged 86 per cent. The proportion of children of secondary school age attending secondary school increases with increasing levels of the household wealth index as seen by the four per cent among children from low wealth index households versus nearly 30 per cent among those from high wealth index households.

Table 10.4 (ED.4): Secondary School Net Attendance Ratio

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

Characteristics	Net attendance ratio			Number of children		
	Male	Female	Total	Male	Female	Total
Age						
14	3.2	7.7	5.6	86	96	182
15	13	8.6	10.9	74	66	140
16	9.7	21.6	15.4	86	77	163
17	20	22.8	21	82	50	131
Mother's education						
None	7.5	17.4	12	78	66	144
Primary	9.6	6.1	8	167	145	312
Secondary +	27.4	34	30.7	34	35	69
Mother not in HH	11.9	21.5	16.4	49	42	90
Wealth index						
Low	3.4	4.7	4	145	111	255
Medium	14.4	7.1	10.9	110	102	212
High	22.2	37.5	30	73	76	150
Total	11.3	14.2	12.7	328	289	617

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

The proportion of secondary school-age children (14-17 years) who are attending primary school are presented in Table 10.5 (ED.4). Nearly 42 per cent of children of secondary school age are attending primary school. This proportion is clearly higher among children from low wealth index households (55 per cent) in contrast to the 15 per cent observed for children from high wealth index households. Similarly, the proportion of secondary school-age children who are attending primary school decreases with increasing levels of mother's education attainment.

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 Mwingi district, Eastern Province, Kenya 2008

	Percentage attending primary school			Number of children		
Characteristics	Male	Female	Total	Male	Female	Total
Age						
14	68.7	64.6	66.5	86	96	182
15	58.0	32.3	45.9	74	66	140
16	40.2	21.4	31.3	86	77	163
17	15.8	17.0	16.2	82	50	131
Mother's education						
None	54.1	43.3	49.2	78	66	144
Primary	48.1	46.9	47.5	167	145	312
Secondary +	24.3	10.7	17.4	34	35	69
Non standard curriculum	(*)	(*)	(*)	0	1	1
Mother not in HH	39.0	15.5	28.1	49	42	90
Wealth Index Quintile						
Low	56.3	54.1	55.3	145	111	255
Medium	48.7	39.7	44.3	110	102	212
High	20.2	10.5	15.2	73	76	150
Total	**45.7**	**37.5**	**41.8**	**328**	**289**	**617**

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.
( ): Figures in parentheses are based on 25-49 un-weighted cases
(*) an asterisk indicate that a figure is based on fewer than 25 un-weighted cases

Details on the ratio of girls to boys attending primary and secondary education are provided in Table 10.6 (ED.7). These ratios are commonly referred to as the Gender Parity Index (GPI). The GPI are obtained from net attendance ratios rather than gross attendance ratios. Using the gross attendance ratios would provide an erroneous description of the GPI mainly because in most cases the majority of over-aged children attending primary education tend to be boys. At primary school level GPI is about 1.1, indicating only a reasonable difference in the primary school attendance of girls and boys. However, the indicator increases to 1.3 for secondary school level, indicating a higher proportion of girls of secondary school age attending secondary school compared to boys. At primary school level, there are no differences in GPI by household wealth index although GPI at secondary school level shows some differences.

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 Mwingi district, Eastern Province, Kenya 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	
Mother's education						
None	91.4	79.9	1.1	17.4	7.5	2.3
Primary	87.3	81.2	1.1	6.1	9.6	0.6
Secondary +	96.7	93.3	1.0	34.0	27.4	1.2
Wealth index						
Low	84.5	75.8	1.1	4.7	3.4	1.4
Medium	90.8	86.5	1.1	7.1	14.4	0.5
High	97.1	91.5	1.1	37.5	22.2	1.7
Total	**89.4**	**82.3**	**1.1**	**14.2**	**11.3**	**1.3**

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

A World Fit for Children goal is to increase adult literacy levels across the world. Adult literacy is also an MDG indicator, relating to both men and women. The MICS adult literacy rates are based only on females aged 15-24 since only a women's questionnaire was administered for this question. Literacy was assessed on the ability of women to read a short simple statement or on school attendance. The proportion of literate women aged 15-24 years is presented in Table 10.7 (ED.8). Overall, 84 per cent of women in Mwingi district aged 15-24 years are literate. The proportion of literate women is higher among the younger age group 15-19 years (88 per cent) compared 20-24 years age group (81 per cent). This suggests that over time, the school attendance rate has been rising, resulting in higher literacy for the younger age groups. The level of literacy increases with increasing levels of the household wealth index.

Table 10.7 (ED.8): Adult literacy

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

Characteristics	Percentage literate*	Percentage not known**	Number of women aged 15-24 years
Education			
None	(*)	(*)	22
Primary	81.4	1.5	395
Secondary +	100.0	0.0	97
Age			
15-19	87.9	1.7	266
20-24	80.6	0.6	249
Wealth index			
Low	77.9	1.7	220
Medium	86.2	1.3	173
High	93.5	0.0	121
Total	**84.4**	**1.2**	**514**

* 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.
( ): Figures in parentheses are based on 25-49 un-weighted cases
(*):An asterisk indicate that a figure is based on fewer than 25 un-weighted cases

11.1 Birth Registration

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

The births of 45 per cent of children less than five years of age in Mwingi district are registered (Table 11.1 (CP.1)). Registration of female children is lower compared to that of male children (44 against 46 per cent). As expected the proportion of birth registered increases with improvements in the mothers' level of education as well as increases in the level of household wealth index although a two percentage drop is observed for the high wealth index households in contrast to the medium category. For example, 40 per cent of births of children from low wealth index have been registered compared to 50 and 49 per cent among those from medium and high wealth index households, respectively. The major reason why births are not registered in Mwingi district is because many mothers or caretakers do not know that a child should be registered (49 per cent). Other unspecified reasons for non-registration account for 29 per cent of the unregistered births, while ignorance of where to register accounts for seven per cent of non-registration.

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 Mwingi district, Eastern Province, Kenya 2008

Characteristics	Birth Regis-tered	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, did not want to pay fine	Doesn't know where to register	Other	Don't know	Total	Number of children aged 0-59 months without registration
Sex											
Male	43.5	647	2.4	6.2	49.3	0.3	7.7	29.3	4.8	100.0	306
Female	45.7	597	3.4	8.1	48.8	0.0	6.9	29.0	3.8	100.0	261
Age											
0-11 months	37.6	244	1.7	9.5	41.1	0.0	6.6	37.7	3.4	100.0	143
12-23 months	48.2	230	4.3	4.1	54.8	0.9	6.4	25.7	3.3	100.0	101
24-35 months	47.2	262	1.4	9.5	48.2	0.0	9.2	26.0	5.7	100.0	110
36-47 months	44.2	247	1.5	5.1	52.2	0.0	7.3	29.2	4.7	100.0	116
48-59 months	45.6	260	5.7	6.2	50.9	0.0	7.1	25.3	4.7	100.0	97
Mother's education											
None	40.6	153	6.5	4.1	60.8	0.0	4.8	22.6	1.2	100.0	68
Primary	43.8	897	1.9	7.8	46.8	0.2	8.1	30.3	4.9	100.0	428
Secondary +	51.2	194	5.2	6.1	51.5	0.0	5.1	28.5	3.6	100.0	71
Wealth index											
Low	40.2	662	2.9	7.5	48.6	0.0	7.4	28.5	5.1	100.0	333
Medium	50.1	381	2.7	5.7	48.5	0.5	7.7	30.6	4.2	100.0	164
High	48.7	202	2.6	8.6	52.8	0.0	5.8	29.0	1.1	100.0	70
Total	**44.6**	**1244**	**2.8**	**7.1**	**49.1**	**0.2**	**7.3**	**29.2**	**4.3**	**100.0**	**567**

11.2 Child Labour

Article 32 of the Convention on the Rights of the Child states that: "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 while the Millennium Declaration calls for the protection of children against all forms of exploitation. In the MICS questionnaire, a number of questions were asked on the issue of child labour, that is, children 5-14 years of age being 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:

- A child of ages 5-11 is involved in at least one hour of economic work or 28 hours of domestic work per week.
- A child of ages 12-14 is involved in at least 14 hours of economic work or 28 hours of domestic work per week.

This definition allows differentiation between child labour and child work to identify the type of work that should be eliminated. As such, the estimates provided here is a minimum for 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 child labour module by the type of work done. The percentages may not add up to the total child labour as children may be involved in more than one type of work.

Among children aged 5-14 years, 20 per cent are engaged in child labour. Child labour by gender is very comparable, with 20 per cent of male and female children involved. Child labour among the larger age group 5-11 years (20 per cent) is still comparable to the proportions observed for the 12-14 year age group (19 per cent). The proportion of child labourers decreases with increasing levels of the household wealth index as well as by mother's level of education attainment. Majority of the child labourers are involved in unpaid work and household chores with less than one per cent reporting any paid work. The proportion working in a family business did not vary much by levels of household wealth index.

Table 11.2 (CP.2): Child Labour

Percentage of children aged 5-14 years involved in child labour activities by type of work done, MICS Mwingi district, Eastern Province, Kenya 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	0.3	0.7	11.9	7.5	19.5	907
Female	0.2	0.7	12.4	7.1	19.7	870
Age						
5-11 years	0.3	0.8	10.2	9.5	19.7	1,259
12-14 years	0.2	0.3	16.7	2.1	19.3	518
School participation						
Yes	0.3	0.6	12.5	7.7	20.3	1,644
No	0.0	1.6	6.9	2.5	10.4	133
Mother's education						
None	0.0	0.8	14.8	8.0	22.8	375
Primary	0.4	0.6	12.0	7.4	19.5	1,185
Secondary +	0.0	0.7	8.4	5.5	14.9	216
Non standard curriculum*	(*)	(*).	(*)	(*)	(*)	1
Wealth index						
Low	0.5	0.5	15.6	6.9	22.6	846
Medium	0.1	0.5	11.7	7.0	19.1	559
High	0.0	1.3	4.9	8.7	13.4	372
Total	**0.3**	**0.7**	**12.1**	**7.3**	**19.6**	**1,778**

*Refers to non-standard curriculum
*The table is based on the responses to a series of questions in the child labour module which is administered to the mother/caretaker of each child in the household 5-14 years of age. The numerator to estimate the child labour percentage includes: (a) children 5-11 years of age that during the week preceding the survey did at least one hour of economic activity or at least 28 hours of domestic chores, and (b) children 12-14 years of age that during the week preceding the survey did at least 14 hours of economic activity or at least 28 hours of domestic chores.
( ): Figures in parentheses are based on 25-49 un-weighted cases
(*):An asterisk indicate that a figure is based on fewer than 25 un-weighted cases

Table 11.3 (CP.3) presents the percentage of children classified as student labourers or as labourer students. Student labourers are children who were attending school and were also involved in child labour activities at the time of the survey. More specifically, of the 93 per cent of the children between 5-14 years of age attending school, 20 per cent are also involved in child labour activities. On the other hand, out of the 20 per cent of the children classified as child labourers, majority are also

attending school (96 per cent). Surprisingly, no substantial differentials were noticed between the boys and girls in terms of child labour. Clearly, the proportion of students who are also involved in child labour declined with increasing levels of the household wealth index as well as improving levels of mother's educational attainment.

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 Mwingi district, Eastern Province, Kenya 2008

Characteristics	Percentage of children in child labour**	Percentage of children attending school	Number of children 5-14 years of age	Percentage of child labourers who are also attending school	Number of child labourers aged 5-14	Percentage of students who are also involved in child labour****	Number of students aged 5-14
Sex							
Male	19.5	91.5	907	93.3	177	19.9	830
Female	19.7	93.6	870	98.8	171	20.8	814
Age							
5-9 years	19.7	90.5	1,259	97.1	249	21.2	1,139
10-14 years	19.3	97.5	518	93.4	100	18.5	505
Mother's education							
None	22.8	90.7	375	(93.2)	86	23.5	340
Primary	19.5	92.2	1,185	97	231	20.5	1,093
Secondary +	(14.9)	97.3	216	96.3	32	14.8	210
Non standard curriculum*	(*)	(*)	1	(*)	0	(*)	1
Wealth index							
Low	22.6	88.6	846	96.9	191	24.8	749
Medium	19.1	95.0	559	93.1	107	18.8	531
High	13.4	97.7	372	98.8	50	13.6	364
Total	**19.6**	**92.5**	**1,778**	**96.0**	**348**	**20.3**	**1,644**

*The table is based on the responses to a series of questions in the child labour module which is administered to the caretaker of each child in the household 5-14 years of age. The numerator to estimate the child labour percentage includes: (a) children 5-11 years of age that during the week preceding the survey did at least one hour of economic activity or at least 28 hours of domestic chores, and (b) children 12-14 years of age that during the week preceding the survey did at least 14 hours of economic activity or at least 28 hours of domestic chores.
** Labourer students: Number of children 5-14 years of age invoved in child labour activities that are also attending school divided by the total number of children 5-14 years of age involved in child labour activities.
**** Student labourers: Number of children 5-14 years of age attending school that are also invoved in child labour activities divided by the total number ( ): Figures in parentheses are based on 25-49 unweighted cases
(*): An asterisk indicate that a figure is based on fewer than 25 unweigted cases of children 5-14 attending school.

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 their protection against abuse, exploitation and violence. In the MICS exercise, mothers/caretakers of children aged 2-14 years, were asked a series of questions on the methods parents use to discipline their children. Note that for the child discipline module, one child aged 2-14 per household was selected randomly during fieldwork. Out of these questions, the two indicators used to describe aspects of child discipline are: 1) the number of children 2-14 years that experience psychological aggression as punishment ***or*** minor physical punishment ***or*** severe physical punishment; and 2) the number of parents/caretakers of children 2-14 years who believe that in order to raise their children properly, they need to physically punish them.

Information on child discipline by selected characteristics is presented in Table 11.4 (CP.4). In Mwingi district, 94 per cent of children aged 2-14 years were subjected to at least one form of psychological or physical punishment by their mothers/caretakers or other household members during the one month preceding the survey.

Table 11.4 (CP.4): Child discipline

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

	Percentage of children 2-14 years of age who experience:							
		Type of punishment						
Characteristics	Only non-violent discipline	Psycho-logical	Minor physical	Severe physical	Any psychological or physical	No discipline or punishment	Mother/ caretaker believes that the child needs to be physically punished	Number of children aged 2-14 years**
Sex								
Male	3.7	78.6	87.7	10.1	95.5	0.8	71.5	1279
Female	6.9	75.4	86.8	10.1	92.1	1.1	82.3	1078
Age								
2-4 years	3.4	72.4	94.9	9.1	95.9	0.7	77.3	601
5-9 years	5	75.4	88.3	9.2	94.2	0.8	76.7	823
10-14 years	6.4	81.7	81.5	11.5	92.4	1.1	75.6	933
Mother's education								
None	4	76.9	87	7.4	95.1	0.9	77.2	457
Primary	4.3	79.3	88.6	10.7	95.3	0.4	77.9	1610
Secondary +	11.6	65.2	81.2	11.1	84.8	3.6	66.8	290
Non standard curriculum	(*)	(*)	(*)	(*)	(*)	(*)	(*)	1
Wealth index								
Low	4.5	79.7	89.8	10.7	95.2	0.4	83.1	1143
Medium	2.4	83.5	86.9	11	97.1	0.5	74	759
High	11.6	60.1	81.8	6.9	85.5	2.9	63.7	455
Total	**5.2**	**77.1**	**87.3**	**10.1**	**93.9**	**0.9**	**76.4**	**2358**

*Refers to non-standard curriculum

** 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.

The preferred modes of punishing children in the district include minor physical punishment (87 per cent), psychological punishment (77 per cent) and to a lesser extent, severe punishment (10 per cent). The differentials by selected characteristics do show that the proportions child punishments is lower among children from high wealth index households and those with mothers who have attained a secondary or higher level of education. Nearly three quarters of mothers/caretaker (76 per

cent) believe that a child needs to be physically punished to bring them up properly. This proportion is somewhat higher among mothers with female children, but as expected, the proportion decreases with increasing levels of the household wealth index as well as by mother's education.

11.4 Early Marriage

In many parts of the world, parents encourage the marriage of their daughters while young with hope that the marriage will benefit the family 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. Given that such girls have little education and poor vocational training, the practice of early marriage reinforces 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 addressing child marriage are the Convention on Consent to Marriage, Minimum Age for Marriage and Registration of Marriages, 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, but often invisible group that needs support. Often, young girls are required to perform heavy amounts of domestic work, are under pressure to demonstrate fertility, and are sometimes 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 uncertainties. 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 girl's 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 get married at younger ages are more likely to believe that it is sometimes acceptable for a husband to beat his wife and are also 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 an increased risk of HIV infection. Parents seek to marry off their girls to protect their honour, while men often seek younger women as wives as a means of avoiding 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, leads to very low condom use among such couples.

Table 11.5 (CP.5) provides information regarding early marriage in Mwingi District. Six per cent of women aged 15-49 years were married before reaching age 15, with early marriages being more prominent in 40-45 year age group. The proportions of women married before age 15 was higher among women with no education (20 per cent), as well as among those from the low wealth index households. Nearly 30 per cent of women were married before reaching age 18 years. Again, the proportion of those married before reaching age 18 years declined with increasing levels of woman's education as well as by increasing levels of the household wealth index.

Among adolescent girls aged 15-19 years, 11 per cent are currently married or in union. This means that about one in ten women aged 15-19 years old in Mwingi district are living with a partner.

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 Mwingi district, Eastern Province, Kenya 2008

Characteristics	Percentage married before age 15*	Number of women aged 15-49 years	Percentage married before age 18***	Number of women aged 20-49 years	Percentage of women 15-19 married/in union**	Number of women aged 15-19 years
Age						
15-19	0.9	266	.	0	10.5	266
20-24	8.0	249	27.5	249	.	0
25-29	3.8	189	25.9	189	.	0
30-34	5.3	190	33.0	190	.	0
35-39	2.0	148	28.2	148	.	0
40-45	20.8	100	37.3	100	.	0
45-49	13.9	82	42.0	82	.	0
Education						
None	20.3	140	39.7	135	0.0	4
Primary	5.2	859	34.6	639	11.0	220
Secondary +	0.7	222	9.1	181	9.3	42
Non standard curriculum	(*)	2	(*)	2	(*)	0
Wealth index						
Low	8.9	532	37.2	420	9.0	111
Medium	4.9	387	31.8	299	11.2	88
High	2.8	304	17.8	238	12.2	66
Total	**6.1**	**1223**	**30.7**	**957**	**10.5**	**266**

*women who were first married/ in union (MA1=1 or 2 or MA3=1 or 2) by exact age 15, 18 (MA8<15, 18) calculated using the century month codes (CMCs)
** Women aged 15-19 currently married or in union (MA1=1 or 2)
*** Women in polygamous marriage/ union (MA2A = 1) as a proportion of the total number of women currently married or in union (MA1 =1 or 2)

Another quite important aspect of early marriage is the spousal age difference, with an indicator being the percentage of married/in union women with an age difference of 10 or more years with their current spouses. Table 11.6 (CP.6) presents the results of survey enquiries on the age difference between husbands and wives. Slightly more than one quarter of women who are in union and aged 15-24 years, have a partner who is 10 or more years older. In about 30 per cent of the cases, the partner is less than five years old, while in about 40 per cent of women in union, the partner is 5-9 years older.

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 Mwingi district, Eastern Province, Kenya 2008

Characteristics	Percentage of currently married/in union women whose husband or partner is:						Number of women currently married/ in union
	Younger	0-4 years older	5-9 years older	10+ years older*	Husband's age unknown	Total	
Age							
15-19	(0.0)	(17.5)	(54.0)	(28.5)	(0.0)	100	28
20-24	0.5	32.8	37.1	25.4	4.3	100	141
Total	**0.4**	**30.3**	**39.9**	**25.9**	**3.5**	**100**	**169**

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 and has immediate complications including excruciating pain, shock, urine retention difficulties, 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 years. It is also carried out on infants, women who are about to get married and sometimes to women who are pregnant with their first child or who have just given birth. The operation is often performed by traditional practitioners, including midwives and barbers, without applying any form of anaesthesia and is usually done 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 the rights violated are the rights to the highest attainable level of health and hygiene and the right to bodily integrity. Furthermore, it may be argued that girls under 18 years cannot be expected 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 the practice and details on the type of FGM/C performed. Tables 11.7 (CP.7) and 11.8 (CP.7) presents information on the prevalence of FGM/C among women and the type and extent of the procedure as well as women's attitudes towards FGM/C. Nearly all (99 per cent) women aged 15-49 in the district have heard about FGM/C. About 67 per cent reported that they had undergone some form of FGM/C.

There are some differences in the proportion of women who have had FGM/C with respect to educational level of the women and households wealth index. For example, 66 per cent of the women aged 15-49 years with no education had FGM/C compared to 53 per cent among those who had education up to secondary school or higher. Similarly, the proportion of women who have had FGM/C among women from low wealth index households was about 79 per cent compared to only 47 per cent among those from high wealth index households.

Among women who had FGM/C, six per cent had an extreme form of FGM/C, i.e., both the removal of flesh from the genital area and closing the genital area by sewing.

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 Mwingi district, Eastern Province, Kenya 2008

				Percentage of women with FGM/C who:						
Characteristics	Heard about FGM/C	Had some form of FGM/C*	Number of women aged 15-49 years	Had flesh removed	Were nicked	Were sewn closed	Form of FGM/C not determined	Total	Had an extreme form of FGM/C**	Number of women with FGM/C
Age										
15-19	97.7	44.3	266	87.3	0.6	9.2	2.9	100.0	9.2	118
20-24	99.0	64.9	249	94.3	0.0	4.9	0.8	100.0	4.4	161
25-29	99.6	64.6	189	85.3	2.2	9.5	3.0	100.0	9.5	122
30-34	99.6	77.4	190	87.7	4.6	7.8	0.0	100.0	7.8	147
35-39	99.5	74.6	148	90.9	4.9	2.1	2.2	100.0	2.1	110
40-44	98.5	87.7	100	95.1	0.8	4.1	0.0	100.0	4.1	88
45-49	100.0	84.4	82	92.0	0.0	5.9	2.1	100.0	5.9	69
Education										
None	99.0	66.2	140	92.8	0.0	7.2	0.0	100.0	7.2	92
Primary	99.2	70.2	859	90.5	2.3	5.4	1.9	100.0	5.4	603
Secondary +	98.2	53.0	222	88.3	2.1	8.9	0.7	100.0	8.3	118
Non standard curriculum	(*)	(*)	2	(*)	(*)	(*)	(*)	(*)	(*)	2
Wealth index										
Low	98.6	79.3	532	93.1	0.3	5.6	1.0	100.0	5.6	422
Medium	99.3	65.1	387	86.3	2.8	7.6	3.2	100.0	7.6	252
High	99.2	46.5	304	88.3	5.5	6.3	0.0	100.0	5.8	142
Total	**99.0**	**66.7**	**1,223**	**90.2**	**2.0**	**6.3**	**1.5**	**100.0**	**6.3**	**815**

*Refers to non-standard curriculum
* Women aged 15-49 reporting they had any type of female genital mutilation/cutting. Individual forms of FGM/C include the removal of flesh from the genital area, the nicking of the flesh of the genital area and sewing closed the genital area.
** Extreme form of FGM/C (infibulation) is defined as both the removal of flesh from the genital area AND sewing closed the genital area.

All those who had heard about FGM/C were asked whether the practice should be continued or not, and the results are presented in Table 11.8 (CP.7). About 14 per cent of women aged 15-49 years who had heard about FGM/C reported that the practice should be continued. Among the women who had experienced FGM/C, 20 per cent said they would support the continuation of the practice compared to less than two per cent among those who had not undergone any form of FGM/C. Conversely, 84 per cent of the women want the practice to be discontinued. The proportion of women who want the practice discontinued was highest among women with secondary or higher educational level (94 per cent), as well as those from high wealth index households (89 per cent).

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

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

Characteristics	Percentage distribution of women age 15-49 years who believe the practice of FGM/C should:					Number of women aged 15-49 years who have heard of FGM/C
	Continue	Be discontinued	Depends on situation	Don't know	Total	
Age						
15-19	12.4	85.0	1.1	1.5	100.0	259
20-24	18.9	77.7	1.8	1.6	100.0	246
25-29	10.6	86.4	2.0	1.1	100.0	188
30-34	12.7	84.0	3.3	0.0	100.0	189
35-39	15.0	84.6	0.4	0.0	100.0	147
40-44	12.7	81.4	4.4	1.5	100.0	99
45-49	8.4	89.9	0.0	1.7	100.0	82
Education						
None	12.4	82.2	2.6	2.9	100.0	138
Primary	15.9	81.2	1.9	1.1	100.0	852
Secondary +	5.4	93.5	1.2	0.0	100.0	218
Non standard curriculum*	(*)	(*)	(*)	(*)	(*)	2
FGM/C experience						
No	1.4	95.3	2.4	0.9	100.0	395
Yes	19.5	77.9	1.5	1.1	100.0	815
Wealth index						
Low	17.5	78.9	1.8	1.8	100.0	524
Medium	11.9	85.5	2.0	0.6	100.0	385
High	8.8	89.1	1.5	0.5	100.0	302
Total	**13.6**	**83.6**	**1.8**	**1.1**	**100.0**	**1211**

Table 11.9 (CP.8) presents the prevalence and extent of FGM/C performed on daughters of survey respondents. All women aged 15-49 years with at least one daughter were asked whether their daughter had undergone FGM/C or not. About 21 per cent of women reported that their daughters had undergone the practice. The proportion of daughters who had undergone FGM/C declined with increasing levels of the mother's educational attainment. For example, 46 per cent of women with no education reported that their daughters had undergone FGM/C versus only 19 and 9 per cent among women with primary and secondary or higher level education, respectively. The proportion of daughters undergoing FGM/C also declined with increasing levels of the household wealth index.

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

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

Characteristics	Daughter had any form of FGM/C*	Number of women aged 15-49 years with at least one daughter	Percentage of women whose daughters: Had flesh removed	Were nicked	Were sewn closed	Total	Daughter had an extreme form of FGM/C	Number of women aged 15-49 years with at least one living daughter who had FGM/C
Age of woman								
15-19	0.0	18	0.0	0.0	0.0	0.0	.	0
20-24	0.0	106	0.0	0.0	0.0	0.0	.	0
25-29	2.5	133	77.9	0.0	22.1	100.0	22.1	3
30-34	17.5	162	100	0.0	0.0	100.0	0.0	28
35-39	25.5	134	88.7	5.1	6.1	100.0	6.1	34
40-44	48.4	93	88.1	1.6	10.3	100.0	10.3	45
45-49	54.6	76	92.7	5.3	2.0	100.0	2.0	41
Education								
None	45.7	101	95.0	0.0	5.0	100.0	5.0	46
Primary	18.9	514	89.0	4.8	6.2	100.0	6.2	97
Secondary +	8.5	107	100.0	0.0	0.0	100.0	0.0	9
Wealth index								
Low	25.4	328	94.0	1.7	4.3	100.0	4.3	83
Medium	22.1	228	90.4	5.0	4.6	100.0	4.6	50
High	11.2	166	83.1	3.8	13.1	100.0	13.1	19
Total	**21.1**	**722**	**91.5**	**3.1**	**5.5**	**100.0**	**5.5**	**152**

11.6 Domestic Violence

A number of questions were addressed to women aged 15-49 years to assess their attitudes towards domestic violence. These questions were asked to give an indication of cultural beliefs that tend to be associated with the prevalence of violence against women by their husbands/partners. The main assumption here is that women who agree with the statements indicating that husbands/partners are justified in beating their wives/partners under the situations described normally tend to be abused by their own husbands/partners. The responses to these questions are presented in Table 11.10 (CP.9).

Slightly over half (57 per cent) of the women aged 15-49 years believe that a husband is justified in beating his wife/partner when she goes out without telling him or if she neglects children, argues with him, refuses to have sex with him or if she burns the food. Out of the five situations mentioned above, 45 per cent approved beating a wife who neglects children, while 29 per cent supported beating if the wife refuses to have sex, 31 per cent approve beating if she goes out without telling him, 37 per cent if she argues with him and 12 per cent if she burns food. Approval for wife beating for any one of the five reasons declined with increasing levels of the household wealth index.

Table 11.10 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 Mwingi district, Eastern Province, Kenya 2008

Characteristics	Percentage of women aged 15-49 years who believe a husband is justified in beating his wife/partner: When she goes out without telling him	When she neglects the children	When she argues with him	When she refuses sex with him	When she burns the food	For any of these reasons*	Number of women aged 15-49 years
Age							
15-19	29.5	43.6	33.3	25.3	11.6	54.5	266
20-24	27.4	44.1	34.3	29.3	9.5	56.8	249
25-29	30.4	47.1	41.2	29.7	10.4	59.7	189
30-34	32.8	45.8	37.3	29.2	12.0	56.0	190
35-39	36.3	51.8	39.2	27.7	13.9	61.8	148
40-44	31.9	38.7	41.0	35.3	14.6	53.4	100
45-49	31.5	43.9	37.0	31.7	11.9	50.7	82
Marital/Union status							
Currently married/ in union	33.7	46.8	42.2	31.7	12.9	61.1	743
Formerly married/ in union	29.7	42.7	29.1	26.4	10.0	48.5	104
Never married/in union	25.6	42.7	28.7	24.1	9.4	49.6	376
Education							
None	28.1	39.1	33.8	30.8	15.6	46.8	140
Primary	34.4	49.8	41.3	31.7	12.6	62.1	859
Secondary +	19.4	31.6	22.5	17.4	5.4	41.8	222
Other*	0.0	0.0	0.0	0.0	0.0	0.0	2
Wealth index							
Low	40.9	57.8	47.9	38.7	18.4	68.3	532
Medium	28.2	40.0	33.1	25.4	8.7	52.4	387
High	16.9	29.7	22.7	16.3	3.4	41.2	304
Total	**30.9**	**45.2**	**36.9**	**28.9**	**11.6**	**56.5**	**1,223**

*Refers to non-standard curriculum

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 on how AIDS virus is transmitted and strategies for preventing transmission. Correct information is the first step towards raising awareness and giving young people the knowledge to protect them from infection. Misconceptions about HIV/AIDS 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, the belief 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 increase awareness and improve knowledge and skills of young people to protect themselves from HIV. The indicators to measure this goal as well as the Millennium Development Goal of reducing HIV infections by half include improving the level of knowledge of HIV and its prevention, and changing behaviour to prevent further spread of the disease. In the MICS, women aged 15-49 were asked whether they knew of the three main ways of HIV transmission namely: having only one faithful uninfected partner; using a condom every time they have sex and abstaining from sex. The results are presented in Table 12.1 (HA.1).

Almost all of the interviewed women had heard of HIV/AIDS. However, the proportion of women who know of the three main methods of preventing HIV transmission is 44 per cent. Ninety four per cent of women know that having one faithful uninfected sex partner can prevent HIV infection, while 50 per cent know of using a condom in every sexual activity and 88 per cent know of abstaining from sex as means of preventing HIV transmission. Knowledge of at least one way to prevent transmission of HIV among women is near universal (98 per cent). As expected, the level of knowledge about preventing transmission of HIV increases with education level of the woman and also by increasing levels of household wealth index.

Table 12.2 (HA.2) presents information on some common misconceptions concerning HIV/AIDS. Majority of the women interviewed (87.3 per cent) reject the two most common misconceptions and know that a healthy-looking person may be infected with the AIDS causing virus. More than 90 per cent of the women know that HIV cannot be transmitted by supernatural means, while 58 per cent of women know that HIV cannot be transmitted by sharing food. Knowledge about common misconceptions increases with increasing levels of woman's education attainment.

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 Mwingi district, Eastern Province, Kenya 2008

Characteristics	Heard of AIDS	Percentage who know transmission can be prevented by: Having only one faithful uninfected sex partner	Using a condom every time	Abstaining from sex	Knows all three ways	Knows at least one way	Number of women
Age							
15-19	100	92.4	49.1	84.9	43.0	97.4	266
20-24	99.4	93.4	45.4	86.8	39.3	97.5	249
25-29	99.6	91.9	53.2	85.9	45.4	97.3	189
30-34	100.0	96.5	51.0	89.9	44.8	99.6	190
35-39	100.0	94.7	46.3	88.4	41.1	100.0	148
40-44	100.0	94.6	54.7	92.3	44.6	100.0	100
45-49	100.0	94.6	57.9	94.2	53.5	99.0	82
Education							
None	100.0	94.6	47.7	91.5	46.0	99.0	140
Primary	99.7	93.6	48.2	87.4	40.9	98.2	859
Secondary +	100.0	93.9	57.7	87.2	51.5	98.7	222
Other*	100.0	100.0	100.0	100.0	100.0	100.0	2
Wealth index							
Low	99.7	95.7	44.3	88.9	39.9	97.7	532
Medium	100.0	94.2	51.8	87.6	44.6	98.9	387
High	99.7	89.9	57.7	86.4	48.5	98.8	304
Total	**99.8**	**93.8**	**50.0**	**87.9**	**43.5**	**98.4**	**1,223**

*Refers to non-standard curriculum
Note: This table is based on all women aged 15-49 years

Figure 12.1: Percent of women who have comprehensive knowledge of HIV/AIDS transmission, MICS Mwingi district, 2008

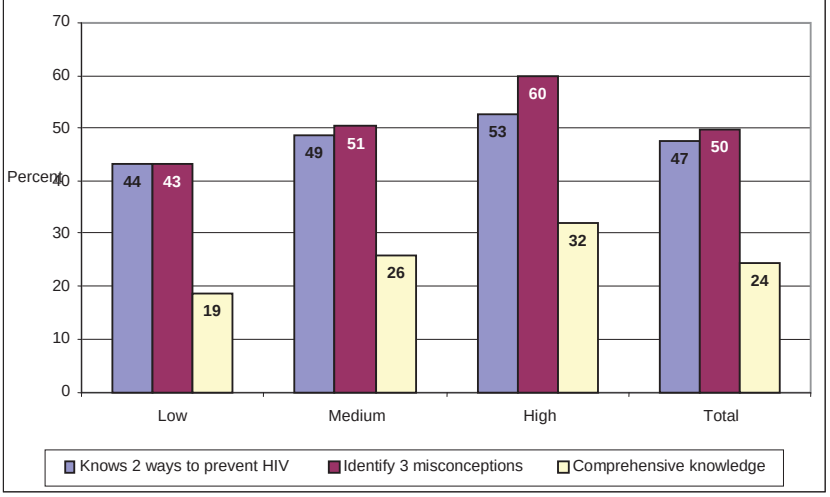


Table 12.2 (HA.2): Identifying misconceptions about HIV/AIDS

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

Characteristics	Percentage who know that: HIV cannot be transmitted by: Option 1: Supernatural means	Option 2: Mosquito bites	A healthy looking person can be infected	Reject two most common misconceptions and know a healthy-looking person can be infected	Percentage who know that: Option 3: HIV cannot be transmitted by sharing food	Option 4: HIV can be transmitted by sharing needles	Number of women
Age							
15-19	92.0	72.4	86.5	63.8	80.0	98.2	266
20-24	92.7	54.2	82.7	44.2	84.4	97.0	249
25-29	91.3	61.3	89.3	54.6	75.0	95.9	189
30-34	92.7	53.2	91.4	49.3	82.9	97.8	190
35-39	93.7	53.5	88.1	42.7	83.4	97.6	148
40-44	92.5	46.0	91.7	41.0	87.6	97.3	100
45-49	96.5	42.5	82.4	34.8	83.9	99.2	82
Education							
None	93.8	46.8	83.7	38.0	71.9	97.9	140
Primary	91.8	53.7	85.6	44.9	82.2	97.2	859
Secondary +	95.3	79.6	95.7	76.7	86.7	98.3	222
Other*	100.0	(*)	(*)	(*)	(*)	(*)	2
Wealth index							
Low	92.3	51.4	83.8	43.3	78.2	96.2	532
Medium	93.5	57.4	91	50.7	80.7	98.1	387
High	92.2	68.5	88.6	59.9	89.8	99.0	304
Total	**92.7**	**57.5**	**87.3**	**49.8**	**81.9**	**97.5**	**1,223**

*Refers to non-standard curriculum
Note: This table is based on all women age 15-49 years

Table 12.3 (HA.2) summarizes information from Tables 12.1 and 12.2 and presents the percentages of women who know two ways of preventing HIV/AIDS transmission and reject the three common misconceptions on this subject. Comprehensive knowledge of HIV prevention methods and transmission is still fairly low. Less than one quarter of women age 15-49 years have comprehensive knowledge about HIV/AIDS (19 per cent). As expected, the proportion with comprehensive knowledge increases with increasing levels of the household wealth index (Figure HA.1) as well as by increasing levels of the woman's education attainment.

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 Mwingi district, Eastern Province, Kenya 2008

Characteristics	Know 2 ways to prevent HIV transmission	Correctly identify 3 misconceptions about HIV transmission	Have comprehensive knowledge (identify 2 prevention methods and 3 misconceptions)*	Number of women
Age				
15-19	46.9	63.8	31.2	266
20-24	42.5	44.2	18.0	249
15-24	44.8	54.3	24.8	514
25-29	51.2	54.6	30.7	189
30-34	48.6	49.3	23.1	190
35-39	44.6	42.7	20.0	148
40-44	50.2	41	24.8	100
45-49	53.5	34.8	15.8	82
Education				
None	46.8	38.0	17.6	140
Primary	45.2	44.9	20.5	859
Secondary +	55.5	76.7	43.3	222
Non standard curriculum	(*)	(*)	(*)	2
Wealth index				
Low	43.5	43.3	18.9	532
Medium	48.6	50.7	25.7	387
High	52.6	59.9	32.0	304
Total	**47.4**	**49.8**	**24.3**	**1,223**

*Refers to non-standard curriculum

Knowledge about mother-to-child transmission of HIV is an important first step for women to seek HIV testing during pregnancy in order to avoid infection for the unborn baby. Women should know that HIV can be transmitted during pregnancy, delivery and through breastfeeding. Knowledge about mother-to-child-transmission among women aged 15-49 years is presented in Table 12.4 (HA.4). Nearly all (98 per cent) women know that HIV can be transmitted from mother to child. The proportion of women who know all three ways of mother-to-child transmission is 54 per cent, while less than two per cent of women did not know of any specific means of transmission. Knowledge of transmission through breast-milk was highest at 94 per cent, compared to transmission during pregnancy at 64 per cent. Contrary to expectations, the proportion of women who know all three ways of mother-to-child transmission of HIV/AIDS was higher among women with lower levels of education and also among those from low and medium wealth index households.

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 Mwingi district, Eastern Province, Kenya 2008

Characteristics	Know AIDS can be transmitted from mother to child	Percentage who know AIDS can be transmitted: During pregnancy	At delivery	Through breast milk	All three ways	Did not know any specific way	Number of women
Age							
15-19	97.0	67.6	80.7	94.9	56.8	3.0	266
20-24	98.0	68.9	84	96.8	58	1.4	249
25-29	98.2	60.2	82.7	95.2	50.2	1.3	189
30-34	97.9	62.3	83.2	94.7	51.2	2.1	190
35-39	100	66.5	86.6	94.1	54.1	0.0	148
40-44	97.6	55.9	86.5	91.0	47.0	2.4	100
45-49	97.8	60.8	90.3	93.4	52.8	2.2	82
Education							
None	98.1	59.4	89.9	96.0	54.6	1.9	140
Primary	97.7	66.7	81.3	95.2	54.9	2.1	859
Secondary +	99.2	58.2	89.9	92.2	48.5	0.8	222
Other*	(*)	(*)	(*)	(*)	(*)	(*)	2
Wealth index							
Low	97.5	66.1	81.2	95.5	55.8	2.2	532
Medium	97.9	65.6	81.8	93.5	52.5	2.1	387
High	99.1	59.7	91.3	95.0	51.9	0.7	304
Total	**98.0**	**64.4**	**83.9**	**94.8**	**53.8**	**1.8**	**1223**

*Refers to non-standard curriculum

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

Table 12.5 (HA.5) presents the attitudes of women towards people living with HIV/AIDS. Among all women who have heard about HIV/AIDS, less than one per cent of the women reported that they would not care for a family member who is sick with HIV/AIDS. About 67 per cent reported that if a family member is sick with HIV/AIDS, they would wish to keep it a secret. Forty-four per cent believe that a teacher should not be allowed to work if he/she has HIV/AIDS and more than 50 per cent will not buy food from a person who has HIV/AIDS. Nearly four out of every five women agree with at least one of the discriminatory statements mentioned above, while 12 per cent agree with none of these discriminatory statements. The proportion of women who agree with at least one of the discriminatory statements declined with increasing levels of the household wealth index.

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 Mwingi district, Eastern Province, Kenya 2008

Characteristics	Percentage of women who: 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 teacher with HIV should not be allowed to work	Would not buy food from a person with HIV/AIDS	Agree with at least one discriminatory statement	Agree with none of the discriminatory statements	Number of women who have heard of AIDS
Age							
15-19	1.1	72.6	34.6	46.3	88.5	11.5	266
20-24	1.1	64.2	44.6	50.8	87.9	12.1	247
25-29	0.0	64.6	50.5	57.6	86.9	13.1	188
30-34	1.6	64.1	45.4	58.8	88.8	11.2	190
35-39	0.0	73.1	48.2	52.5	91.0	9.0	148
40-44	1.1	64.8	43.0	55.3	89.5	10.5	100
45-49	0.0	62.5	53.9	60.1	86.8	13.2	82
Education							
None	0.0	63.4	44.1	59.8	86.8	13.2	140
Primary	1.1	68.4	48.6	56.6	91.2	8.8	857
Secondary +	0.0	63.9	27.9	36.1	78.8	21.2	222
Other*	(*)	(*)	(*)	(*)	(*)	(*)	2
Wealth index							
Low	1.3	65.7	51.5	61.7	92.5	7.5	530
Middle	0.8	69.2	44.2	51.2	88.1	11.9	387
High	0.0	66.9	32.2	41.3	81.8	18.2	304
Total	**0.8**	**67.1**	**44.4**	**53.3**	**88.5**	**11.5**	**1221**

*Refers to non-standard curriculum

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

Another important indicator for HIV/AIDS management is the knowledge of where one can be tested for HIV and use of such services. Responses to questions related to knowledge among women about a facility with HIV testing services and whether they have ever been tested are presented in Table 12.6 (HA.6). Most of the women in the district know where people can be tested (90 per cent). However, only 46 per cent have actually been tested. Among those who have been tested, 95 per cent have been given test results. Differentials by wealth index show that the proportion of women with knowledge about various aspects related to HIV testing increases with improving levels of the household wealth index.

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

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

Characteristics	Know a place to get tested*	Have been tested**	Number of women	If tested, have been told result	Number of women who have been tested for HIV
Age					
15-19	78.5	18.6	266	97.2	49
20-24	91.9	55.9	249	92.4	139
25-29	92.4	67.4	189	96.7	127
30-34	93.6	60.7	190	93.6	115
35-39	92.0	43.9	148	96.0	65
40-44	91.8	34.0	100	(100)	34
45-49	98.3	38.8	82	(95.3)	32
Education					
None	96.1	52.0	140	97.9	73
Primary	87.7	43.5	859	93.4	373
Secondary +	93.9	52.0	222	98.8	116
Wealth index					
Low	89.4	46.1	532	94.4	245
Medium	89.1	45.4	387	94.7	176
High	91.2	46.3	304	96.8	141
Total	**89.8**	**45.9**	**1,223**	**95.1**	**562**

* Women who know of a place to get tested for HIV include those women who have already been tested, including those tested during antenatal care.
** Women who have been tested for HIV includes those tested during antenatal care.
The first two columns of the table include all women in the denominator, even those who have not heard of AIDS.
In the fourth column, the denominator consists of women who have been tested and the numerator consists of women who have been told the results.

Among women who had given birth within the two years preceding the MICS survey, data on the proportion who received counselling and HIV testing during antenatal care is presented in Table 12.7. About 94 per cent of mothers in the district received some form of antenatal care from a health professional. Fifty nine per cent were provided with information about HIV prevention, while 68 per cent were tested for HIV during antenatal care visit. Among those tested for HIV, two thirds received results of the HIV test done during the antenatal care visit. The proportion receiving results during ANC visit increased with increasing levels of the household wealth index, and this proportion was also highest among women with secondary or higher levels of education (79 per cent).

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 Mwingi district, Eastern Province, Kenya 2008

Characteristics	Per cent of women who: Received antenatal care from a health care professional for last pregnancy	Were provided information about HIV prevention during ANC visit	Were tested for HIV at ANC visit	Received results of HIV test at ANC visit	Number of women who gave birth in the 2 years preceding the survey
Age					
15-19	(97.7)	(57.5)	(65.2)	(65.2)	26
20-24	96.2	56.1	72.4	68.9	127
25-29	93.8	60.0	70.2	68.9	108
30-34	94.6	59.6	70.6	66.4	81
35-49	89.5	61.1	56.6	55.6	77
Education					
None	(92.7)	(61.1)	(66.4)	(64.6)	41
Primary	93.7	55.6	66.1	63.4	318
Secondary +	97.5	74.1	80.1	79.1	59
Wealth index					
Low	92.7	50.0	59.2	56.0	222
Medium	94.5	63.6	73.5	71.3	127
High	98.3	78.1	87.0	87.0	69
Total	**94.1**	**58.8**	**68.1**	**65.7**	**418**

12.2 Orphans and Vulnerable Children

As the HIV epidemic progresses, more and more children are becoming orphaned and vulnerable because of HIV/AIDS. Children who are orphaned or those living in vulnerable households may be at an increased risk of neglect or exploitation since parents are not available to give them essential support, guidance and protection. Monitoring the variations in different outcomes for orphans and vulnerable children and comparing them to their peers gives us a measure of how well communities and governments are responding to vulnerable children's needs.

In order to monitor these variations, a measurable definition of orphaned and vulnerable children had to be designed. The UNAIDS Monitoring and Evaluation Reference Group developed a proxy definition of children who have been affected by adult morbidity and mortality. This definition was meant to capture many of the children affected by AIDS in countries where a significant proportion of 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 18-59) in the household either died (after being chronically ill) or was chronically ill in the year prior to the survey.

Information pertaining to children's living arrangements and orphanhood is presented in Table 12.8 (HA.10). Nearly half (49 per cent) of children age 0-17 years in Mwingi District live with both parents. About seven per cent of children aged 0-17 do not live with a biological parent. One out of three children (32 per cent) lives with their mother alone although the father is alive. About ten per cent of the children have lost either one parent or both parents and this proportion declines with increasing levels of the household wealth index. It was difficult to determine the children's living status for about four per cent of the children due to missing information. As expected, the proportion of children not living with parents increases with the age of the child.

Table 12.8 (HA.10) Children's living arrangement 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 per cent of children who are orphans, MICS Mwingi district, 2008

Characteristics	Living with both parents	Living with neither parent				Living with mother only		Living with father only		Impossible to determine	Total	Not living with a biological parent*	One or both parents dead**	Number of children
		Only father alive	Only mother alive	Both are alive	Both are dead	Father alive	Father dead	Mother alive	Mother dead					
Sex														
Male	50.1	0.9	0.4	4.6	1.2	31.2	6.0	1.4	0.3	3.8	100	7.2	9.5	1652
Female	46.8	1.3	0.9	4.6	0.9	32.7	6.6	0.9	0.8	4.4	100	7.7	11.2	1531
Age														
0-4 years	51.2	0.5	0	3.5	0.1	37.2	3.3	0.3	0.3	3.6	100	4	4.3	970
5-9 years	51.5	1.0	0.3	3.8	0.6	32.4	5.4	1.5	0.4	3.1	100	5.6	8.3	914
10-14 years	45.6	1.7	1.2	5.3	1.6	29.1	8.6	1.1	0.6	5.2	100	9.8	15.1	864
15-17 years	42.1	1.3	1.7	7.9	3.1	25.0	10.5	2.3	0.8	5.4	100	14	18.5	435
Wealth index														
Low	51.2	1.6	0.3	3.1	0.6	28.8	8.2	1.3	0.4	4.4	100	5.6	11.5	1530
Medium	48.2	0.8	0.9	5.2	1.8	33.5	3.7	1.2	0.8	3.8	100	8.7	9.6	1006
High	42.8	0.3	1.0	7.5	0.9	36.9	5.8	0.7	0.2	3.9	100	9.6	8.7	646
Total	**48.5**	**1.1**	**0.6**	**4.6**	**1.0**	**32.0**	**6.3**	**1.1**	**0.5**	**4.1**	**100**	**7.4**	**10.3**	**3183**

Table 12.9 (HA.11) shows the percentage of orphaned and vulnerable children (OVC) aged 0-17 years. About three per cent of the children aged 0-17 years had a chronically ill parent or experienced an adult death in their household during the last one year, who had been sick for at least three months during the period preceding the death. Slightly over four per cent of the children live in a household where an adult member had been chronically ill for three or more months during the year preceding the survey. Seven per cent of the children live in a household where the parent is chronically ill or have had an adult death during the year preceding the survey or have a chronically ill adult member. One out of every ten children aged 0-17 have lost either one or both of their parents. The proportion of children with one or both parent's dead and that of OVCs increases with age but appears comparable across all levels of the household wealth index.

Table 12.9 (HA.11): Prevalence of Orphanhood and Vulnerability among Children

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

Characteristics	Chronically ill parent	Adult death in household	Chronically ill adult in household	Vulnerable children*	One or both parents dead**	Orphans and vulnerable children	Number of children aged 0-17 years
Sex							
Male	1.0	1.9	3.9	6.2	9.5	13.9	1,652
Female	1.0	1.7	4.8	6.9	11.2	16.7	1,531
Age							
0-4 years	0.6	0.9	4.1	5.2	4.3	9.2	970
5-9 years	0.8	1.3	4.0	5.4	8.3	12.4	914
10-14 years	1.3	2.3	4.5	7.5	15.1	19.8	864
15-17 years	2.0	3.8	5.3	10.0	18.5	25.7	435
Wealth index							
Low	1.2	1.5	3.3	5.6	11.5	15.6	1,530
Medium	1.4	2.1	5.2	7.4	9.6	15.1	1,006
High	0.0	1.8	5.6	7.4	8.7	14.6	646
Total	**1.0**	**1.8**	**4.3**	**6.6**	**10.3**	**15.3**	**3,183**

One of the measures developed for the assessment of the status of orphaned and vulnerable children in comparison with their peers looks at the rate of school attendance for children aged 10-14 years who have lost both parents (double orphans), versus children whose parents are alive (and who live with at least one of parents). If children whose parents have died do not have the same level of access to school as their peers, this implies that families, communities and schools are not ensuring that these children's rights are being fully met. Table 12.10 (HA.12) presents information on school attendance of orphaned and vulnerable children.

About two per cent of children aged 10-14 have lost both parents. The school attendance rate for children whose parents have died is about 96 per cent. This rate of school attendance is slightly lower than that of children whose parents are both alive or those who live with at least one of the parents. Therefore, these findings suggest that orphans in Mwingi district, are not greatly disadvantaged compared to the non-orphaned children in terms of school attendance.

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 Mwingi district, Eastern Province, Kenya 2008

Characteristics	Per cent of children whose mother and father have died	School attendance rate of children whose mother and father have died	Per cent 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*	Per cent of children who are orphaned or vulnerable	School attendance of children who are orphaned or vulnerable	Per cent of children who are not orphaned or vulnerable	School attendance of children who are not orphaned or vulnerable	OVC vs non-OVC school attendance ratio	Total number of children aged 10-14 years
Sex											
Male	1.8	92.6	78.5	97.1	0.95	17.2	94.5	82.8	97.2	0.97	426
Female	1.3	100	73.2	99.2	1.01	22.4	100	77.6	99.2	1.01	438
Wealth index											
Low	0.9	100	74.7	98.6	1.01	20.4	97.4	79.6	98.7	0.99	383
Medium	3.4	100	78.2	96.2	1.04	19.2	97.4	80.8	96.4	1.01	288
High	0.3	0	74.5	100	0	19.7	98.5	80.3	100	0.98	192
Total	**1.6**	**95.8**	**75.8**	**98.1**	**0.98**	**19.8**	**97.6**	**80.2**	**98.2**	**0.99**	**864**

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

In many countries across the globe, different kinds social support services are routinely available to families that have volunteered to take in orphans and vulnerable children (OVC). Community-based organizations and governments do provide resources to ensure that families are supported to care for these children. The level and types of support provided to households caring for OVC due to AIDS is presented in Table 12.11 (HA.13). Almost two thirds of OVC aged 0-17 years indicated that they had not received any support. For those OVC that had received some form of support, educational support was the most common type with more than 30 per cent of the children having benefited from this type of support. This may be explained by the government sponsored bursary scheme that is channelled through schools and constituency committees. Overall, 36 per cent of all OVC reported to have benefited from some form of support from various sources.

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 Mwingi district, Eastern Province, Kenya 2008

	Percentage of orphans and vulnerable children whose households received:							Number of children orphaned or vulnerable aged 0-17 years
Characteristics	Medical support (last 12 months)	Emotional and psychosocial support (last 3 months)	Social/ material support (last 3 months)	Educational support (last 12 months)	Any support*	All types of support	No support at all	
Sex								
Male	0.3	1.8	2.2	28.2	31.7	0.0	68.3	230
Female	2.2	2.1	2.7	36.4	40.3	0.0	59.7	255
Age								
0-4 years	2.3	2.3	2.9	0.0	6.7	0.0	93.3	89
5-9 years	1.4	0.0	1.7	38.7	39.3	0.0	60.7	114
10-14 years	0.0	1.9	2.8	44.6	47.5	0.0	52.5	171
15-17 years	2.3	3.7	2.3	33.8	39.2	0.0	60.8	112
Wealth index								
Low	1.6	0.8	2.0	32.6	35	0.0	65.0	239
Medium	1.3	1.4	3.0	33.9	37	0.0	63.0	152
High	0.6	5.8	2.7	30.2	38	0.0	62.0	94
Total	**1.3**	**1.9**	**2.5**	**32.5**	**36.2**	**0.0**	**63.8**	**486**

Orphaned and vulnerable children due to AIDS (OVC) includes children whose mother or father have died (regardless of cause), who live in a household with a chronically ill adult, whose parents are chronically ill, or who live in a household where an adult who was chronically ill has died in the past year.
NA: Not applicable.

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Appendix A: Sample Design

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

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

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

Where

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

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

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

Sampling Frame and Selection of Clusters

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

Listing and Mapping Activities

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

The listing and mapping teams were oriented in a 3 day training program in 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[8] 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.

Calculation of Sample Weights

The Mwingi 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’,

[8] 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.

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 Mwingi 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

Mr. James Gatungu, KNBS
Mr. Christopher Omolo, KNBS

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Leah Mbesa Yula
Ronah Nduku Ndula
Rogers Mutinda Kang'ai
Catherine Mutindi Ndolo

Appendix C: Estimates of Sampling Errors

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

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

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

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

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

	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Population Size	Un-weighted Count	Confidence limits	
Iodized salt consumption	0.7399	0.02121	0.029	2.453	1.566	1,655	1,050	0.698	0.782
Child discipline	0.9293	0.01825	0.020	4.514	2.125	1,266	892	0.893	0.966

	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	0.2527	0.04464	0.177	63.851	7.991	8,738	6,052	0.163	0.342
Use of improved sanitation facilities	0.2070	0.02383	0.115	20.931	4.575	8,738	6,052	0.159	0.255
Net primary school attendance rate	0.8491	0.01144	0.013	1.452	1.205	2,060	1,423	0.826	0.872
Net secondary school attendance rate	0.1520	0.02353	0.155	2.152	1.467	806	502	0.105	0.199
Primary completion rate	0.0224	0.01698	0.758	1.765	1.329	203	135	-0.012	0.056
Child labour	0.1634	0.01135	0.069	1.696	1.302	2,612	1,800	0.141	0.186
Prevalence of orphans	0.0941	0.00891	0.095	3.183	1.784	4,619	3,420	0.076	0.112
Prevalence of vulnerable children	0.0777	0.01191	0.153	6.769	2.602	4,619	3,420	0.054	0.102

	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Population Size	Un-weighted Count	Confidence limits	
Skilled attendant at delivery	0.2853	0.03760	0.132	3.765	1.940	626	544	0.210	0.360
Antenatal care	0.9659	0.01005	0.010	1.664	1.290	626	544	0.946	0.986
Contraceptive prevalence	0.5746	0.02513	0.044	2.069	1.438	1,232	802	0.524	0.625
Adult literacy	0.8294	0.02705	0.033	2.446	1.564	703	474	0.775	0.884
Prevalence of FGM/C	0.2927	0.02403	0.082	3.386	1.840	1,959	1,215	0.245	0.341
Marriage before age 18	0.2608	0.02787	0.107	0.935	0.967	321	233	0.205	0.317
Comprehensive knowledge about HIV prevention among young people	0.3767	0.02000	0.053	2.068	1.438	1,959	1,215	0.337	0.417
Attitudes towards people with HIV/AIDS	0.1183	0.01613	0.136	2.989	1.729	1,928	1,200	0.086	0.151
Women who have been tested for HIV	0.4770	0.03746	0.079	6.828	2.613	1,959	1,215	0.402	0.552
Knowledge of mother-to-child transmission of HIV	0.4951	0.02904	0.059	4.097	2.024	1,959	1,215	0.437	0.553

	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Population Size	Un-weighted Count	Confidence limits	
Underweight prevalence	0.3361	0.01898	0.056	1.920	1.386	1,975	1,190	0.298	0.374
Tuberculosis immunization coverage	0.9864	0.01048	0.011	2.224	1.491	406	272	0.965	1.007
Polio immunization coverage	0.8598	0.02788	0.032	1.747	1.322	406	272	0.804	0.916
Immunization coverage for DPT	0.9200	0.01515	0.016	0.846	0.920	406	272	0.890	0.950
Measles immunization coverage	0.8614	0.03802	0.044	3.282	1.812	406	272	0.785	0.937
Fully immunized children	0.7500	0.03875	0.052	2.170	1.473	406	272	0.672	0.827
Acute respiratory infection in last two weeks	0.1370	0.01384	0.101	2.005	1.416	2,038	1,238	0.109	0.165
Antibiotic treatment of suspected pneumonia	0.4385	0.04767	0.109	1.615	1.271	279	176	0.343	0.534
Diarrhoea in last two weeks	0.1287	0.01138	0.088	1.430	1.196	2,038	1,238	0.106	0.151
Received ORT or increased fluids and continued feeding	0.2319	0.05562	0.240	2.831	1.683	262	164	0.121	0.343
Fever in last two weeks	0.2225	0.02047	0.092	2.997	1.731	2,038	1,238	0.182	0.263
Anti-malarial treatment	0.1268	0.01978	0.156	0.965	0.982	454	274	0.087	0.166
Support for learning	0.5915	0.02458	0.042	3.092	1.758	2,038	1,238	0.542	0.641
Birth registration	0.3612	0.02657	0.074	3.785	1.946	2,038	1,238	0.308	0.414

Appendix D: Data Quality Tables

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

		Household population of women age 10-54	Interviewed women age 15-49		4
		Number	Number	Percent	Percentage of eligible women interviewed
Age	10-14	438	0.0	0.0	0.0
	15-19	322	245	21.5	76.1
	20-24	281	236	20.7	84.0
	25-29	191	177	15.5	92.6
	30-34	183	177	15.5	96.4
	35-39	140	136	12.0	97.2
	40-44	95	92	8.1	96.2
	45-49	78	75	6.6	96.0
	50-54	91	0.0	0.0	0.0
6	15-49	1290	1137	100.0	88.1

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
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

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

INDICATOR		NUMERATOR	DENOMINATOR
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
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

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

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

INDICATOR		NUMERATOR	DENOMINATOR
81	External support to children orphaned and made vulnerable by HIV/AIDS	Number of orphaned and vulnerable children under age 18 whose households received free basic external support in caring for the child	Number of orphaned and vulnerable children under age 18 surveyed
82	Comprehensive knowledge about HIV prevention among young people	Number of women aged 15-24 years that correctly identify two ways of avoiding HIV infection and reject three common misconceptions about HIV transmission	Total number of women aged 15-24 years surveyed
83	Condom use with non-regular partners	Number of women aged 15-24 years reporting the use of a condom during sexual intercourse with their last non-marital, non-cohabiting sex partner in the previous 12 months	Total number of women aged 15-24 years surveyed that had a non-marital, non-cohabiting partner in the previous 12 months
84	Age at first sex among young people	Number of women aged 15-24 years that have had sex before age 15	Total number of women aged 15-24 surveyed
85	Higher risk sex in the last year	Number of sexually active women aged 15-24 years that have had sex with a non-marital, non-cohabitating partner in the previous 12 months	Total number of women aged 15-24 that were sexually active in the previous 12 months
86	Attitude towards people with HIV/AIDS	Number of women expressing acceptance on all four questions about people with HIV or AIDS	Total number of women surveyed
87	Women who know where to be tested for HIV	Number of women that state knowledge of a place to be tested	Total number of women surveyed
88	Women who have been tested for HIV	Number of women that report being tested for HIV	Total number of women surveyed
89	Knowledge of mother-to-child transmission of HIV	Number of women that correctly identify all three means of vertical transmission	Total number of women surveyed
90	Counselling coverage for the prevention of mother-to-child transmission of HIV	Number of women that gave birth in the previous 24 months and received antenatal care reporting that they received counselling on HIV/AIDS during this care	Total number of women that gave birth in the previous 24 months surveyed
91	Testing coverage for the prevention of mother-to-child transmission of HIV	Number of women that gave birth in the previous 24 months and received antenatal care reporting that they received the results of an HIV test during this care	Total number of women that gave birth in the previous 24 months surveyed
92	Age-mixing among sexual partners	Number of women aged 15-24 years that had sex in the past 12 months with a partner who was 10 or more years older than they were	Total number of sexually active women aged 15-24 years surveyed
93	Security of tenure	Number of household members living in urban households that lack formal documentation for their residence or that feel at risk of eviction	Number of urban household members in households surveyed
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

INDICATOR		NUMERATOR	DENOMINATOR
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
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

MICS



unicef

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?

Reading text for Question WM14

ENGLISH

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

KISWAHILI

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

W.2: Woman Information — WI

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

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

MICS unicef

W.3a: Birth History — BH

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

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

W.3a: Birth History — BH

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

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

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

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

W.4: Tetanus Toxoid — TT

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

W.5: Maternal and Newborn Health — MN

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

W.5: Maternal and Newborn Health — MN

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

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

W.5: Maternal and Newborn Health — MN

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

W.6: Marriage/Union — MA

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

W.7: Contraception and Unmet Need — CP

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

W.8: Female Genital Mutilation/Cutting — FG

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

W.8: Female Genital Mutilation/Cutting — FG

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

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

W.10: HIV/AIDS — HA

#	Question	Options	Skip
HA1	NOW I WOULD LIKE TO TALK WITH YOU ABOUT SOMETHING ELSE. HAVE YOU EVER HEARD OF THE VIRUS HIV OR AN ILLNESS CALLED AIDS?	Yes ..... 1 **No** **2**	2⇨ END
HA2	CAN PEOPLE PROTECT THEMSELVES FROM GETTING INFECTED WITH THE AIDS VIRUS BY HAVING ONE SEX PARTNER WHO IS NOT INFECTED AND ALSO HAS NO OTHER PARTNERS?	Yes ..... 1 No ..... 2 Don't know 8	
HA3	CAN PEOPLE GET INFECTED WITH THE AIDS VIRUS BECAUSE OF WITCHCRAFT OR OTHER SUPERNATURAL MEANS?	Yes ..... 1 No ..... 2 Don't know 8	
HA4	CAN PEOPLE REDUCE THEIR CHANCE OF GETTING THE AIDS VIRUS BY USING A CONDOM EVERY TIME THEY HAVE SEX?	Yes ..... 1 No ..... 2 Don't know 8	
HA5	CAN PEOPLE GET THE AIDS VIRUS FROM MOSQUITO BITES?	Yes ..... 1 No ..... 2 Don't know 8	
HA6	CAN PEOPLE REDUCE THEIR CHANCE OF GETTING INFECTED WITH THE AIDS VIRUS BY NOT HAVING SEX AT ALL?	Yes ..... 1 No ..... 2 Don't know 8	
HA7	CAN PEOPLE GET THE AIDS VIRUS BY SHARING FOOD WITH A PERSON WHO HAS AIDS?	Yes ..... 1 No ..... 2 Don't know 8	
HA7A	CAN PEOPLE GET THE AIDS VIRUS BY GETTING INJECTIONS WITH A NEEDLE THAT WAS ALREADY USED BY AN INFECTED PERSON?	Yes ..... 1 No ..... 2 Don't know 8	
HA8	IS IT POSSIBLE FOR A HEALTHY-LOOKING PERSON TO HAVE THE AIDS VIRUS?	Yes ..... 1 No ..... 2 Don't know 8	
HA9	CAN THE AIDS VIRUS BE TRANSMITTED FROM A MOTHER TO A BABY (.....)	Yes / No / DK	
	HA9A. DURING PREGNANCY?	During pregnancy 1 2 8	
	HA9B. DURING DELIVERY?	During delivery 1 2 8	
	HA9C. BY BREASTFEEDING?	By breastfeeding 1 2 8	
HA10	IF A FEMALE TEACHER HAS THE AIDS VIRUS BUT IS NOT SICK, SHOULD SHE BE ALLOWED TO CONTINUE TEACHING IN SCHOOL?	Yes ..... 1 No ..... 2 Don't know/not sure/depends 8	
HA11	WOULD YOU BUY FRESH VEGETABLES FROM A SHOPKEEPER OR VENDOR IF YOU KNEW THAT THIS PERSON HAD THE AIDS VIRUS?	Yes ..... 1 No ..... 2 Don't know/not sure/depends 8	

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

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

Remarks/Observations by the Supervisor/Editor/Coordinators:

FORM-C: CHILD BELOW 5 YEARS

C.1: General Information — ENGLISH

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

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

Remarks

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

Introduction/Consent

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

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

MAY I START THE INTERVIEW NOW?

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

C.2: Birth Registration and Early Learning — BR

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

C.2: Birth Registration and Early Learning — BR

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

C.3: Vitamin A — VA

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

C.4: Breastfeeding — BF

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

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

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

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

☐ **Yes** ⇨ **Continue to BF5**

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

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

C.5: Care of Childhood Illness — CI

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

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

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

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

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

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

C.7: Child Immunization — IM

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

C.7: Child Immunization — IM

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

IM19	PLEASE TELL ME. IF (*name*) HAS PARTICIPATED IN ANY OF THE FOLLOWING CAMPAIGNS, NATIONAL IMMUNIZATION DAYS AND/OR VITAMIN A OR CHILD HEALTH DAYS:		Yes	No	DK
IM19a	CHILD HEALTH DAYS, VIT-A CAMPAIGN		1	2	8
IM19b	MEASLES & VITAMIN A CAMPAIGN		1	2	8
IM19c	CHILD HEALTH DAYS - VIT. A & DEWORMING CAMPAIGN		1	2	8

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

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

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

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

C.8: Anthropometry — AN

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

Remarks/Observations by the Supervisor/Editor/Coordinators:

Kenya - Eastern Province, Mwingi District

Multiple Indicator Cluster Survey

2008