

# MULTIPLE INDICATOR CLUSTER SURVEY MANUAL 2005

Monitoring the Situation of  
Children and Women

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DIVISION OF POLICY AND PLANNING



# **MONITORING THE SITUATION OF CHILDREN AND WOMEN**

## **MULTIPLE INDICATOR CLUSTER SURVEY MANUAL 2005**

**Division of Policy and Planning**

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**United Nations Children's Fund**

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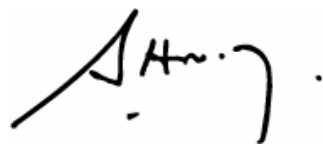
## P R E F A C E

Achieving the goals and targets of the Millennium Declaration, the World Fit for Children initiative and other international commitments is contingent on monitoring progress, using agreed-upon indicators which are comparable across countries and over time. In fulfilling this need, it is necessary that internationally comparable, yet nationally relevant household surveys be conducted, to serve both national and global level monitoring.

Household surveys are the most commonly used tools for collecting social data. During the last decade, the Multiple Indicator Cluster Surveys (MICS) have proved to be valuable and robust tools in filling gaps in data. The current round of MICS (MICS3) was designed to collect information on a large number of indicators required for monitoring the goals and targets of the Millennium Declaration, the World Fit for Children Declaration and Plan of Action, the goals of the United Nations General Assembly Special Session on HIV/AIDS and of the African Summit on Malaria. In response to this broader need, MICS3 covers a wider range of topics than those contained in previous rounds conducted in 1995 and 2000. With the increasing need to monitor and evaluate progress, MICS serves a very important purpose as a data collection tool at regular and timely intervals.

The third round of MICS surveys is the result of collaborative efforts and consultations with many other agencies, particularly United Nations agencies, national counterparts and other partners in development. These consultations ensure that the Multiple Indicators Cluster Surveys are harmonized with other data collection efforts, and are able to produce relevant, internationally- comparable information - the cornerstone of evidence-based decision making for the development of policies, strategies and interventions, aimed at the improvement of the lives of children and women.

This manual is intended to assist governments and implementing agencies in the planning, design and implementation of MICS3 surveys. It is also hoped that it will serve as an important reference document in the field of household surveys.



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The manual has also benefited from the outstanding contributions of a number of individuals. Trevor Croft deserves special recognition; he coordinated the development of the MICS3 questionnaire, drafted several chapters and reviewed various chapters of the manual. Patricia David played a key role in the development of the MICS3 model questionnaire and drafted Chapter 3 (Designing the Questionnaire) and Appendix Three (Instructions for Interviewers). Anthony G. Turner revised the sampling chapters from the previous manual, added new material and drafted Chapter 4 (Designing and Selecting the Sample). Nicholas Hill wrote Chapter 7 (Processing the Data) and developed the data processing design.

From UNICEF, Division of Policy and Planning; Tessa Wardlaw, Edilberto Loaiza and Mary Mahy were instrumental in the development of the MICS3 questionnaire and methodology, as well as revising several chapters of the manual, and developing key training materials for and facilitation of the MICS3 workshops; Maryanne Neill, Ngagne Diakhate, Claudia Cappa and Endre Bakka actively participated and provided valuable contributions to various stages of MICS3 methodology development and implementation. Attila Hancioglu, the MICS3 coordinator, not only oversaw the finalization of the questionnaire but also coordinated the production of the entire manual, provided critical input to the review and updating of its content, and the overall design and content of the MICS3 technical workshops. Lois Jensen edited the manuscript.

Last and not least, many thanks are due to national government officials and to many UNICEF staff members at headquarters, regional and country level, who provided valuable feedback throughout the development of the manual.

## **CHAPTER 1**

# **INTRODUCTION**

The purpose of this manual is to assist UNICEF staff, national counterparts and other partners in measuring progress for children through the use of household surveys. It offers a systematic approach to filling gaps in data required for reporting on the situation of children and women 5 years into the millennium, and for setting a baseline from which to measure change in the coming decade and beyond.

The Multiple Indicator Cluster Survey presented in this manual is shaped in large part by the needs arising from recent international agreements: the Millennium Declaration, adopted by all 191 United Nations Member States in September 2000, and the Plan of Action outlined in A World Fit For Children, adopted by 189 Member States at the United Nations Special Session on Children in May 2002. Both of these commitments build upon promises made by the international community at the 1990 World Summit for Children.

In signing these international agreements, governments committed themselves to improving conditions for their children and to monitoring progress towards that end. UNICEF was assigned a supporting role in this task (see Table 1.1).

Many governments have taken substantial steps to accomplish these objectives through national programmes of action. Measuring indicators of progress is an essential part of that process, both to provide information that can guide action and for assessing change. Important experience was gained in the mid- and late-1990s in monitoring the implementation of 13 goals set out in the World Summit for Children Plan of Action. However, even for this limited set of goals, it was quickly recognized that current data on key indicators were lacking in many countries.

### **THE GROWING COMPLEXITY OF THE MONITORING PROCESS**

In an attempt to fill these data gaps, UNICEF developed the Multiple Indicator Cluster Survey (MICS), a household survey that was adapted and administered by some 64 countries in the mid-1990s. Together with data from more routine national sources, the estimates obtained through this first round of MICS helped countries assess how far they had come in their progress for children and where they must go.

The end-decade assessment of the World Summit for Children Plan of Action (in 2000) was based on the full set of 27 goals. The MICS methodology was expanded accordingly (to measure 63 of the 75 indicators) and 67 countries conducted a second round of Multiple Indicator Cluster Survey around the turn of the millennium.

In the five years since the last assessment of progress, the complexity of the monitoring process has grown considerably. The Millennium Declaration, for example, includes a set of eight Millennium Development Goals (MDGs), against which human development is to be measured.

These goals are broken down into 18 targets and 48 indicators, plus a number of additional sub-indicators. Many of these MDG indicators are directly related to children, and UNICEF has been designated as the lead agency to report on global progress towards them.

The World Fit for Children Declaration and Plan of Action contains 21 goals and 99 strategies and actions to achieve them. These goals form the new agenda for action related to children during the first decade of the millennium.

**Table 1.1**  
**A Commitment to Action and UNICEF Response**

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

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

“...We will conduct periodic reviews at the national and subnational levels of progress in order to address obstacles more effectively and accelerate actions....”

A World Fit for Children Plan of Action, paragraphs 60 and 61

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

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

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

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

A number of other summit conferences, including the United Nations General Assembly Special Session on HIV/AIDS and the African Summit on Malaria, have defined additional goals, targets and indicators that must be monitored and are sometimes overlapping. The current and third round of the Multiple Indicator Cluster Survey, known as MICS3, attempts to capture a broad

range of data relating to children and women that cover many of these international goals. The survey does not attempt to be exhaustive, but limits its scope to a set of key indicators that can be readily collected through household surveys.

### MEASURING THE CURRENT SITUATION

For most global goals, standard monitoring indicators have been defined and are internationally accepted. For the Millennium Development Goals, for example, the General Assembly has agreed upon a set of 48 basic indicators (53 when sub-indicators and composite indicators are treated separately). The current round of MICS can generate data on 21 of the 53 MDG indicators.

The development of a standard set of indicators for tracking progress towards the World Fit for Children goals, however, has presented major challenges. Many of the goals, commitments, strategies and actions laid out in this document do not readily translate into quantitative monitoring indicators. Moreover, developing indicators for the full set of goals and strategies would expand the list to unmanageable proportions. The indicators selected for inclusion in MICS3, therefore, reflect a subset of key elements of the Plan of Action. They cover four major areas represented in the plan (promoting healthy lives, providing quality education, protecting against abuse, exploitation and violence, and combating HIV/AIDS), but do not reflect all elements of that plan. The selection of indicators to be included in MICS3 is based on a set of criteria presented in Table 1.2.

**Table 1.2**  
**Criteria for Inclusion of Indicators in MICS3**

- Relevance to MDG indicators
- Relevance to monitoring the World Fit for Children Declaration and Plan of Action
- Relevance to UNICEF priority areas
- Continuity with the World Summit for Children indicators
- International agreement on indicators
- Previous testing of indicators
- Feasibility of collecting indicators through household surveys
- Does not compromise the quality of data for other indicators



## HOUSEHOLD SURVEYS AS MONITORING TOOLS

The most commonly used tool for collecting social data is the household sample survey. Household surveys are used in all areas of the social sciences, including public policy analysis, which relies heavily on survey data to make informed decisions. Other potential sources of data include population censuses, vital registration systems, routine health service data, epidemiological surveillance sites, and routine education systems. While other sources of data may be available, few are able to cover the range of topics, permit the disaggregation of data, or provide data as quickly or as inexpensive as household surveys.

When these other sources of data are deficient, household sample surveys are the most widely used method for providing data on health and social indicators. Every industrialized country, for example, despite having good routine information systems, has special ongoing survey programmes to provide supplementary information. Such programmes usually consist of extensive health interview surveys and surveys of disease morbidity and disability. Surveys are the best source of data on programme coverage, and on differentials in social indicators. They can also provide breakdowns of information by regional, social or ethnic groupings, which are difficult to obtain from routine data sources.

For some of the indicators that will be needed to assess the situation of women and children, no other sources, aside from the household survey, exist. The only way to obtain nationally representative information on child labour, for example, or on the number of households using iodized salt, or on the nutritional status of young children, is to do a household survey, or to ensure that relevant questions, measurements or tests are included in other survey programmes. Data already collected in other household surveys, such as the Demographic and Health Surveys (DHS), can provide baseline information for some indicators, provided the right questions are asked.

Gaps in the data required for assessing the situation of children and women midway into this decade persist in almost all countries. And few options are available beyond household surveys for closing these gaps. Properly conducted surveys can produce the information needed to meet the rigorous requirements for the end-decade assessment. When linked to improved reporting in routine systems, these surveys offer the best approach for enabling countries to report on the situation of their children, and the progress made since the baseline years of each goal.

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**The quality of data obtained in a survey depends on the proper design of the questionnaire, on the sampling strategy and on good training and supervision of interviewers.**

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## THE ROLE OF MICS3

The MICS3 questionnaires and manual have been developed specifically to obtain data for the 101 indicators listed in Table 1.5 at the end of this chapter. These draw heavily on the experience of the last round of MICS and a review of progress towards the goals of the World Summit for Children. The selection of indicators has been substantially influenced by the more recent Millennium and World Fit for Children Declarations as well as new and emerging areas, particularly the monitoring of HIV/AIDS, malaria and child protection, among others.

**Table 1.3**  
**MICS3 Questionnaire Modules**

Household modules	Modules for children under five
Household Information Panel Household Listing or <i>Extended Household Listing</i> Education Water and Sanitation Household Characteristics <i>ITN (Insecticide-treated Nets)</i> <i>Children Orphaned and Made Vulnerable by HIV/AIDS</i> Child Labour Salt Iodization	Under-five Child Information Panel Birth Registration and Early Learning Vitamin A Breastfeeding Care of Illness <i>Malaria</i> Immunization Anthropometry
Modules for women	Optional modules
Women's Information Panel Child Mortality Tetanus Toxoid Maternal and Newborn Health and <i>Malaria Prevention</i> Marriage/Union and <i>Polygyny</i> Contraception <i>Female Genital Mutilation/Cutting</i> <i>Sexual Behaviour</i> HIV/AIDS	Additional Household Characteristics Security of Tenure and Durability of Housing Child Discipline Source and Cost of Supplies for Insecticide-Treated Nets, ORS Packets, Antibiotics, and Antimalarials Contraception and Unmet Need Attitudes Towards Domestic Violence Child Development Disability Maternal Mortality

*Italics indicate additional modules to be included in all Multiple Indicator Cluster Surveys, where they apply.*

Table 1.3 summarizes the content of MICS3. The content is organized into questionnaire modules, for countries to adopt or omit according to their data needs. Another possible approach, discussed later in this chapter, is incorporating MICS modules or questions into surveys planned by other organizations.

The optional modules shown at the bottom right corner of Table 1.3 should only be included in MICS3 if they are of particular relevance to a country. Likewise, the Maternal Mortality module should only be considered if no reliable national data exist or if data are more than 10 years old, and where a sufficiently large sample size is being used. The Disability module should only be used if there is a specific interest in assessing disability and if a linked, in-depth study, including clinical testing of children, will be done by way of follow-up. The other optional modules can be used at the discretion of each country. The core questionnaires, additional modules and optional modules of MICS3 can be found in Appendix Two. The flow of MICS3 questionnaires and detailed information on the modules are presented in Chapter 3.

The development of the MICS3 questionnaire and manual has drawn on a wide range of organizations. They include the World Health Organization (WHO), the Joint United Nations Programme on HIV/AIDS, the UN Educational, Scientific and Cultural Organization, the International Labour Organization, the United Nations Statistical Division, the Centers for Disease Control and Prevention (United States), the United States Agency for International Development, MEASURE DHS (ORC Macro International), Johns Hopkins University, John Snow Inc., and others. UNICEF worked with members of various inter-agency MDG monitoring groups and other inter-agency indicator development groups to harmonize methods of measuring priority indicators, wherever possible. These include the Technical Advisory Group of the WHO/UNICEF Joint Monitoring Programme on Water Supply and Sanitation, the Malaria Monitoring and Evaluation Reference Group, HIV-AIDS Monitoring and Evaluation Reference Group, the Global Fund to Fight AIDS, Tuberculosis and Malaria, the Global Alliance for Vaccines and Immunization Monitoring and Evaluation Task Force, and the Child Survival Partnership. In particular, UNICEF has worked closely with the Demographic and Health Surveys project to harmonize indicators, questions and methods for analysis, and to coordinate data collection schedules at the country level in order to maximize the usefulness of the two organizations' surveys and avoid duplication of effort.

**Table 1.4**  
**What Multiple Indicator Cluster Surveys Can Do**

- Fortify local-level programme monitoring
- Satisfy national-level needs for goal monitoring
- Perform at low cost
- Produce rapid findings
- Strengthen national capacities for monitoring
- Ensure internationally comparable results

## TAILORING SURVEYS TO INDIVIDUAL COUNTRIES

Every household survey, no matter how simple, incurs costs. The requirements of sample size and proper implementation of fieldwork, data processing, analysis and report writing are demanding. UNICEF country office staff should therefore review the data needs for their country in three steps before deciding whether a Multiple Indicator Cluster Survey is required, and what modules it should contain:

**Step 1:** Review what indicator data, of adequate quality and national coverage, are likely to be available at mid-decade through existing data systems. Do not limit this review to routine data systems, but also include existing and planned surveys.

**Step 2:** Identify what household surveys are ongoing or planned and can be expected to yield high-quality data that is nationally representative in time for the mid-decade assessment (December 2005). Explore whether these surveys might incorporate MICS3 modules to fill end-decade data gaps.

**Step 3:** If, after other sources have been thoroughly mined, you still expect data gaps, then consider carrying out a Multiple Indicator Cluster Survey. But first explore whether other partners might be interested in sharing the work and the costs it will entail.

Remember that a key aim of the mid-decade assessment is to obtain timely, quality, nationally representative data for assessing the situation of children and women around 2005. If such data are available from other sources, duplicate data collection should be avoided.

However, there may be reasons for including questions in a Multiple Indicator Cluster Survey for which relevant data are already available. For example, education data may be available, but not data on child labour. Because it is important to relate child labour to school attendance, it may be necessary to also collect school attendance data in the MICS3 in order to maximize the usefulness of the child labour data.

Household sample surveys should not be expected to provide reliable subnational reports on these indicators, or to report on change over time, unless these requirements are clearly part of the survey design specifications at the outset. However, when a survey is well conducted, the data supplied should provide valuable information for helping communities and governments understand and monitor their progress, and to plan rationally for the future. Moreover, the results should stand up to scrutiny by governments, other international organizations and communities.

To make sure that happens, it is essential to plan carefully. This manual brings together the best guidance the international community has to offer in doing that. The step-by-step instructions provided here for planning and conducting a Multiple Indicator Cluster Survey are intended to complement and reinforce existing monitoring systems, not replace them.

## KNOWING HOW YOU WILL USE THE RESULTS

Before a final decision is made to conduct a Multiple Indicator Cluster Survey, you should be able to answer the following three questions:

- Why are you doing the survey?
- How do you expect to use the results?
- To whom, and at what level, will the report of results be addressed?

The answers to these questions should help to ensure that the survey will provide useful information for monitoring goals, for influencing policy and programme design, and for encouraging policy makers and programme managers to allocate resources to social priority sectors. What data are needed and how they will be used by policy makers, programme managers, communities and the general public should inform all planning decisions.

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**Make sure it is clear why you are doing the survey and how you will use the results. Then, plan the presentation of your findings alongside the planning of the survey itself.**

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Chapter 2 of this manual contains a list of key decisions that need to be made before a survey is undertaken. UNICEF country representatives, programme managers and national counterparts should read Chapter 2 carefully before starting to plan a survey. It provides advice on what you can expect to gain from a survey and how long it will take to carry out the entire process. Chapter 2 also contains a checklist of items that will need to be budgeted for when doing a national survey.

## BUILDING NATIONAL MONITORING CAPABILITIES

Aside from yielding valuable information, planning and carrying out a survey, and using the results, can strengthen national monitoring capabilities for the future. For this reason, it is important to involve personnel from national institutions, such as medical and public health schools, education and training institutes, and university departments in statistics and social sciences.

Because of the pressure to report results quickly, the information presented in a survey report usually includes only basic findings. However, subsequent analysis of the data can be greatly facilitated by creating a survey microdata file (of household-level data). A microdata file that is well documented and made readily available will allow in-depth analyses to be carried out by specialists in many research institutes, universities and organizations who would otherwise not have access to this data. A small amount of money, together with a microdata file, can generate detailed analyses of the data and lead to further dissemination, via a variety of media, of information about children.

Each country programme is well placed to assess where the strongest entry point may be to help national counterparts. The challenge is to bring together different sectors, organizations and individuals to collaborate in the cost-effective use of a shared tool.

**Table 1.5**  
**Indicators for Monitoring Progress at Mid-Decade**

The following list includes the indicators selected for inclusion in the 2005 round of the Multiple Indicator Cluster Survey. The indicators are primarily those used for monitoring the World Fit for Children Declaration and Plan of Action, but also include indicators for monitoring the Millennium Development Goals and other global commitments. Age ranges indicated with a hyphen include the month or year given as the outer boundary of the range. For example, '6-9 months' includes 6-month-old and 9-month-old children. MDG indicators and indicators that can be estimated only by the inclusion of optional modules are indicated in the last column. The table is reproduced in Appendix One in more detail, including numerators and denominators of each indicator.

	<b>Indicator</b>	<b>Description</b>	<b>Comment</b>
	<b>HEALTHY LIVES</b>		
1	<b>Under-five mortality rate</b>	Probability of dying between birth and exactly 5 years of age, per 1,000 live births	<b>MDG 13</b>
2	<b>Infant mortality rate</b>	Probability of dying between birth and exactly 1 year of age, per 1,000 live births	<b>MDG 14</b>
3	<b>Maternal mortality ratio</b>	Annual number of deaths of women from pregnancy-related causes, when pregnant or within 42 days of termination of pregnancy, per 100,000 live births	<b>MDG 16</b> <i>OPTIONAL</i>
4	<b>Skilled attendant at delivery</b>	Proportion of births attended by skilled health personnel	<b>MDG 17</b>
5	<b>Institutional deliveries</b>	Proportion of births delivered in a health facility	
6	<b>Underweight prevalence</b>	Proportion of children under five that fall below minus two and below minus three standard deviations from median weight for age of NCHS/WHO reference population	<b>MDG 4</b>
7	<b>Stunting prevalence</b>	Proportion of children under five that fall below minus two and below minus three standard deviations from median height for age of NCHS/WHO reference population	
8	<b>Wasting prevalence</b>	Proportion of children under five that fall below minus two and below minus three standard deviations from median weight for height of NCHS/WHO reference population	
9	<b>Low-birthweight infants</b>	Proportion of live births that weighed less than 2,500 grams at birth	
10	<b>Infants weighed at birth</b>	Proportion of live births that were weighed at birth	

	<b>Indicator</b>	<b>Description</b>	<b>Comment</b>
11	<b>Use of improved drinking water sources</b>	Proportion of population that use improved sources of water	<b>MDG 30</b>
12	<b>Use of improved sanitation facilities</b>	Proportion of population that use improved sanitation facilities	<b>MDG 31</b>
13	<b>Water treatment</b>	Proportion of household members that use water treated to make it safer to drink	
14	<b>Disposal of child's faeces</b>	Proportion of children under 3 years of age whose stools were disposed of 'safely'	
15	<b>Exclusive breastfeeding rate</b>	Proportion of infants less than 6 months of age that are exclusively breastfed	
16	<b>Continued breastfeeding rate</b>	Proportion of children aged 12-15 months and 20-23 months that are currently breastfeeding	
17	<b>Timely complementary feeding rate</b>	Proportion of infants aged 6-9 months that are receiving breastmilk and complementary food	
18	<b>Frequency of complementary feeding</b>	Proportion of infants aged 6-11 months that are breastfed and that received complementary food at least the minimum recommended number of times yesterday	
19	<b>Adequately fed infants</b>	Proportion of infants aged 0-11 months that were appropriately fed (that is, infants aged 0-5 months that were exclusively breastfed and infants aged 6-11 months that were still breastfed and received complementary food at least the appropriate number of times yesterday)	
20	<b>Antenatal care</b>	Proportion of women aged 15-49 years that were attended at least once during pregnancy by skilled health personnel	
21	<b>Contraceptive prevalence</b>	Proportion 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)	<b>MDG 19c</b>
22	<b>Antibiotic treatment of suspected pneumonia</b>	Proportion of children aged 0-59 months with acute respiratory infections in the last 2 weeks that are receiving antibiotics	
23	<b>Care seeking for suspected pneumonia</b>	Proportion of children aged 0-59 months with acute respiratory infections in the last 2 weeks that were taken to an appropriate health provider	
24	<b>Solid fuels</b>	Proportion of the population using solid fuels (wood, charcoal, crop residues and dung) as the primary source of domestic energy for cooking	<b>MDG 29</b>



	<b>Indicator</b>	<b>Description</b>	<b>Comment</b>
25	<b>Tuberculosis immunization coverage</b>	Proportion of children aged 12-23 months immunized against tuberculosis (with BCG vaccine) by their first birthday	
26	<b>Polio immunization coverage</b>	Proportion of children aged 12-23 months immunized against polio (with oral polio vaccine, or OPV) by their first birthday	
27	<b>DPT immunization coverage</b>	Proportion of 1-year-old children immunized against diphtheria, pertussis and tetanus (DPT) by their first birthday	
28	<b>Measles immunization coverage</b>	Proportion of children aged 12-23 months immunized against measles by their first birthday	<b>MDG 15</b>
29	<b>Hepatitis B immunization coverage</b>	Proportion of children aged 12-23 months immunized against hepatitis B (HepB) by their first birthday	
30	<b>Yellow fever immunization coverage</b>	Proportion of children aged 12-23 months immunized against yellow fever by their first birthday	
31	<b>Fully immunized children</b>	Proportion of children receiving DPT1-3, OPV 1-3, BCG and measles vaccines at the appropriate age	
32	<b>Neonatal tetanus protection</b>	Proportion of children aged 0-11 months protected against neonatal tetanus through immunization of their mother	
33	<b>Use of oral rehydration therapy (ORT)</b>	Proportion of children aged 0-59 months that had diarrhoea in the last 2 weeks and were treated with oral rehydration salts or an appropriate household solution	
34	<b>Home management of diarrhoea</b>	Proportion of children aged 0-59 months that had diarrhoea in the last 2 weeks and that received more fluids and continued feeding	
35	<b>Received ORT or increased fluids, and continued feeding</b>	Proportion of children aged 0-59 months that had diarrhoea in the last 2 weeks and received ORT (oral rehydration salts or an appropriate household solution) or increased fluids, AND continued feeding	
36	<b>Household availability of insecticide-treated nets (ITNs)</b>	Proportion of households with at least one insecticide-treated mosquito net	
37	<b>Under-fives sleeping under insecticide-treated nets</b>	Proportion of children aged 0-59 months that slept under an insecticide-treated mosquito net during the previous night	<b>MDG 22</b>
38	<b>Under-fives sleeping under mosquito nets</b>	Proportion of children aged 0-59 months that slept under a mosquito net during the previous night	
39	<b>Antimalarial treatment (under-fives)</b>	Proportion of children aged 0-59 months with fever in the last 2 weeks that were treated with an appropriate antimalarial within 24 hours of onset	<b>MDG 22</b>

	<b>Indicator</b>	<b>Description</b>	<b>Comment</b>
40	<b>Intermittent preventive malaria treatment (pregnant women)</b>	Proportion of women that received appropriate intermittent, preventive malaria treatment during the last pregnancy	
41	<b>Iodized salt consumption</b>	Proportion of households consuming adequately iodized salt	
42	<b>Vitamin A supplementation (under-fives)</b>	Proportion of children aged 6-59 months that received a high-dose vitamin A supplement in the last 6 months	
43	<b>Vitamin A supplementation (post-partum mothers)</b>	Proportion of mothers that received a high-dose vitamin A supplement before their infant was 8 weeks old	
44	<b>Content of antenatal care</b>	Proportion of women that received selected antenatal care interventions during the last pregnancy (within 24 months)	
45	<b>Timely initiation of breastfeeding</b>	Proportion of women that put their last newborn infant to the breast within 1 hour of birth	
46	<b>Support for learning</b>	Proportion of children aged 0-59 months living in households that provide adequate support for learning and school readiness	
47	<b>Father's support for learning</b>	Proportion of children aged 0-59 months living in households in which the father is engaged in the child's learning activities	
48	<b>Support for learning: children's books</b>	Proportion of households with three or more children's books	<i>OPTIONAL</i>
49	<b>Support for learning: non-children's books</b>	Proportion of households with three or more non-children's books	<i>OPTIONAL</i>
50	<b>Support for learning: materials for play</b>	Proportion of households with materials intended for play	<i>OPTIONAL</i>
51	<b>Non-adult care</b>	Proportion of children aged 0-59 months left alone or in the care of another child (under age 10) in the past week	<i>OPTIONAL</i>

	Indicator	Description	Comment
<b>EDUCATION</b>			
52	<b>Pre-school attendance</b>	Proportion of children aged 36-59 months that are attending some form of organized early childhood education programme	
53	<b>School readiness</b>	Proportion of children in first grade that attended some form of pre-school the previous year	
54	<b>Net intake rate in primary education</b>	Proportion of children of primary-school entry age that enter school at that age	
55	<b>Net primary school attendance rate</b>	Proportion of children of primary-school age attending primary or secondary school	<b>MDG 6</b>
56	<b>Net secondary school attendance rate</b>	Proportion of children of secondary-school age attending secondary school or higher	
57	<b>Children reaching grade five</b>	Proportion of children entering first grade of primary school that eventually reach grade five	<b>MDG 7</b>
58	<b>Transition rate to secondary school</b>	Proportion of children that were in the last year of primary school during the previous school year that attend secondary school	
59	<b>Primary completion rate</b>	Number of children of any age that are attending the last grade of primary education (excluding the repeaters) as a proportion of children of the age corresponding to the last grade of primary school	<b>MDG 7b</b>
60	<b>Adult literacy rate</b>	Proportion of women aged 15-24 years that are able to read a short simple statement on their everyday life	<b>MDG 8</b>
61	<b>Gender parity index</b>	Ratio of proportion of girls to proportion of boys in primary and secondary education	<b>MDG 9</b>

	Indicator	Description	Comment
<b>CHILD PROTECTION</b>			
62	<b>Birth registration</b>	Proportion of children aged 0-59 months whose births are reported registered	
63	<b>Prevalence of female genital mutilation/cutting (FGM/C)</b>	Proportion of women aged 15-49 years that report undergoing female genital mutilation/cutting	
64	<b>Prevalence of extreme form of FGM/C</b>	Proportion of women aged 15-49 years that report undergoing an extreme form of female genital mutilation/cutting (such as infibulation)	
65	<b>FGM/C prevalence among daughters</b>	Proportion of women aged 15-49 years that report at least one daughter who has undergone female genital mutilation/cutting	
66	<b>Approval for FGM/C</b>	Proportion of women aged 15-49 years favouring the continuation of female genital mutilation/cutting	
67	<b>Marriage before age 15, before age 18</b>	Proportion of women aged 15-49 years that were first married/in union by exact age 15 and proportion of women aged 20-49 years that were first married/in union by exact age 18	
68	<b>Young women aged 15-19 currently married/in union</b>	Proportion of women aged 15-19 years that are currently married/in union	
69	<b>Spousal age difference</b>	Proportion of women aged 15-19 years and 20-24 years currently married/in union with a spousal age difference of 10 or more years	
70	<b>Polygyny</b>	Proportion of women aged 15-49 years in a polygynous union	
71	<b>Child labour</b>	Proportion of children aged 5-14 years involved in child labour activities	
72	<b>Labourer students</b>	Proportion of children aged 5-14 years involved in child labour activities that are attending school	
73	<b>Student labourers</b>	Proportion of children aged 5-14 years attending school that are involved in child labour activities	
74	<b>Child discipline</b>	Proportion of children that (1) experience only non-violent punishment; (2) experience psychological aggression as punishment; (3) experience minor physical punishment; (4) experience severe physical punishment	<i>OPTIONAL</i>

	Indicator	Description	Comment
<b>HIV/AIDS</b>			
75	<b>Prevalence of orphans</b>	Proportion of children aged 0-17 years that are orphans	
76	<b>Prevalence of vulnerable children</b>	Proportion of children aged 0-17 years that have a chronically ill parent or that live in a household with a chronically ill adult or where an adult died in the past year	
77	<b>School attendance of orphans versus non-orphans</b>	Ratio of current school attendance among orphans to that of non-orphans in the age range of 10-17 years	<b>MDG 20</b>
78	<b>Children's living arrangements</b>	Proportion of children aged 0-17 years that live in a household but are not living with a biological parent	
79	<b>Malnutrition among children orphaned and made vulnerable by HIV/AIDS</b>	Ratio of underweight prevalence in children aged 0-59 months who are orphaned and made vulnerable by HIV/AIDS (OVC) to underweight prevalence among non-OVCs aged 0-59 months	
80	<b>Early sex among children orphaned and made vulnerable by HIV/AIDS</b>	Proportion of children aged 15-17 years that are orphaned or made vulnerable by HIV/AIDS (OVC) that have had sex before age 15 compared to non-OVCs aged 15-17 years that have had sex before age 15	
81	<b>External support to children orphaned and made vulnerable by HIV/AIDS</b>	Proportion of orphans and vulnerable children whose households received free basic external support in caring for the child	
82	<b>Comprehensive knowledge about HIV prevention among young people</b>	Proportion of young women aged 15-24 years that both correctly identify ways to prevent the sexual transmission of HIV and that reject major misconceptions about HIV transmission	<b>MDG 19b</b>
83	<b>Condom use with non-regular partners</b>	Proportion of young women aged 15-24 years reporting the use of a condom during sexual intercourse with their last non-regular sex partner in the last 12 months	<b>MDG 19a</b>
84	<b>Age at first sex among young people</b>	Proportion of women aged 15-19 years that had sex before age 15	
85	<b>Higher risk sex in the last year</b>	Proportion of women aged 15-24 years that have been sexually active in the last 12 months and have had sex with a non-marital, non-cohabiting partner during the same period	
86	<b>Attitude towards people with HIV/AIDS</b>	Proportion of women aged 15-49 years expressing accepting attitudes towards people with HIV/AIDS	
87	<b>Women who know where to be tested for HIV</b>	Proportion of women aged 15-49 years that know where to get an HIV test	
88	<b>Women who have been tested for HIV</b>	Proportion of women aged 15-49 years that have been tested for HIV	

	Indicator	Description	Comment
89	<b>Knowledge of mother- to-child transmission of HIV</b>	Proportion of women aged 15–49 years that correctly identify means of HIV transmission from mother to child	
90	<b>Counselling coverage for the prevention of mother-to-child transmission of HIV</b>	Proportion of women aged 15–49 years that gave birth and received antenatal care and report that they received counselling on HIV/AIDS	
91	<b>Testing coverage for the prevention of mother-to-child transmission of HIV</b>	Proportion of women aged 15–49 years that gave birth in the previous 2 years and received antenatal care and report that they received the results of an HIV test	
92	<b>Age-mixing among sexual partners</b>	Proportion of young women aged 15–24 years that had sex in the preceding 12 months with a partner that was 10 or more years older than they were	
<b>Additional indicators</b>			
93	<b>Security of tenure</b>	Proportion of urban household members living in households that lack formal documentation for their residence or that feel at risk of eviction	<i>OPTIONAL</i>
94	<b>Durability of housing</b>	Proportion of urban household members living in dwellings that are not considered durable	<i>OPTIONAL</i>
95	<b>Slum household</b>	Proportion of urban household members living in slum housing	<b>MDG 32</b> <i>OPTIONAL</i>
96	<b>Source of supplies</b>	Proportion of children (or households) for whom the following supplies were obtained from public providers: insecticide-treated mosquito nets, oral rehydration salts, antibiotics and antimalarials	<i>OPTIONAL</i>
97	<b>Cost of supplies</b>	Median cost of the following supplies obtained from public and private providers: insecticide-treated mosquito nets, oral rehydration salts, antibiotics and antimalarials	<i>OPTIONAL</i>
98	<b>Unmet need for family planning</b>	Proportion of women that are currently married/in union that have an unmet need for contraception	<i>OPTIONAL</i>
99	<b>Demand satisfied for family planning</b>	Proportion of total demand for contraception (defined as current use of contraception, plus unmet need for contraception) currently satisfied	<i>OPTIONAL</i>
100	<b>Attitudes towards domestic violence</b>	Percentage of women who believe a husband/partner is justified in beating his wife/partner in various circumstances	<i>OPTIONAL</i>
101	<b>Child disability</b>	Percentage of children aged 2–9 years with at least one disability reported by their mother or caretaker	<i>OPTIONAL</i>

## CHAPTER 2

# GETTING STARTED

*This chapter is written for programme directors, their national counterparts, survey coordinators and technical resource persons. It will help you to:*

- Identify potential resource persons
- Decide on the level of aggregation for the estimates
- Estimate how long the survey will take
- Calculate how much the survey will cost

Once it is decided that a Multiple Indicator Cluster Survey is necessary, some important steps must be taken:

- First, identify a survey coordinator and a senior resource person who will be in charge of the design, implementation and analysis of the data.
- Second, decide whether a nationally representative sample is sufficient or whether there is also a need for subnational estimates – for example, at the regional, state or provincial level.
- Third, establish a timetable for the survey. Early planning is crucial because the full survey cycle, from inception to publication of results, may take several months.
- Fourth, calculate how much the survey will cost.

### IDENTIFYING POTENTIAL RESOURCE PERSONS

A survey coordinator must be identified in collaboration with government partners. This person will ideally be a professional in a governmental institution who is able to dedicate him/herself full-time for the duration

of the project. The coordinator may also be an independent consultant, but should have the respect of national counterparts. Previous experience in survey implementation is required, particularly in previous MICS or similar household surveys, along with a firm grounding in scientific methodology (as demonstrated, for example, by a postgraduate degree in demography, public health or related field). The survey coordinator will make sure that the entire process runs smoothly and that the basic protocols are followed, including carrying out the first stages of sampling, selecting and training fieldworkers, supervising overall field activities, and processing and analysing the data. Most important, the coordinator will be responsible for seeing that the survey results are reported in a manner that will *help all stakeholders understand their*

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**Do not attempt to do a survey unless you can identify a full-time survey coordinator.**

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*implications and use them for planning and decision-making.* The survey coordinator will also be responsible for obtaining the assistance of the resource person/s as well as the cooperation of government agencies at different levels.

A senior resource person should be identified who will collaborate closely with the survey coordinator, especially at the survey design stage. The resource person should have ample technical expertise in survey design, implementation and analysis (UNICEF Regional Offices as well as UNICEF Headquarters in New York will be able to provide a list of qualified candidates). In some cases, it may be easier to select an institution that can provide the survey coordinator with the necessary support. In the last round of MICS, in 2000, national statistical offices were selected in many countries to perform this function, which proved to be a successful strategy.

### **DECIDING ON THE LEVEL OF AGGREGATION**

Sample size depends partly on whether indicators will be measured at the national and/or subnational level. The primary function of the Multiple Indicator Cluster Survey is to enable countries to fill major data gaps so that they are able to report at the national level. However, some countries may also wish to have subnational estimates for planning, monitoring and evaluation purposes. For example, separate estimates for main provinces, regions or population groups, such as minorities or slum dwellers, may be desirable. Countries will have to consider a number of factors when deciding on whether or not to undertake subnational estimates, since this will have sample size, cost and management implications (see Chapter 4). In some instances, there will be interest in one or two subgroups. In this case, one option would be to oversample these groups to make sure that estimates with some precision are obtained. But this will also increase the overall number of households to be surveyed. The potential gains from these options need to be carefully weighed against the additional costs in both time and money that they will invariably entail.

### **ESTIMATING HOW LONG THE SURVEY WILL TAKE**

Due to the pressing need for reporting, survey planning should start as soon as possible. Good planning means specifying clearly at the outset what you need to learn from the survey and how that information will be used. Each step should then be tightly orchestrated around those needs, with the report format and plans for dissemination set out in advance. Unless the final phase of the survey is planned in detail at the outset, data processing, data analysis and report writing will inevitably be delayed, often to the point of rendering the results obsolete by the time they finally become available.

The timetable presented in Table 2.1 shows the minimum estimated time for completing the full survey cycle for a sample of 300 clusters of 20 households each. This table is provided for general guidance only, since local conditions can affect the duration of the study. Factors affecting timing include the geography of a country, road conditions and the prior experience of



the survey team. For more detailed planning, using weeks rather than months is preferable when drafting the timetable. Other activities may also be included or made more explicit in the timetable, such as the updating of the sample frame, correction of questionnaires after the pre-test, the recruitment process of interviewers, etc.

**Table 2.1**  
**Sample Timetable for a National Survey Covering 6,000 Households**

Tasks	Months										
	1	2	3	4	5	6	7	8	9	10	11
Identify survey coordinator and resource person; plan survey											
Adapt and pre-test questionnaires											
Carry out sampling											
Complete logistical arrangements											
Select and train interviewers											
Conduct pilot study and collect data											
Enter and clean data											
Complete data processing											
Prepare reports (preliminary and final) and disseminate widely											



**IMPORTANT:**

*A key factor that may affect the timing of your survey is seasonality. Fieldwork may not be feasible during the rainy season due to poor road conditions, or during special religious holidays such as Ramadan. In addition, some indicators may vary with the seasons, such as the prevalence of malnutrition. These influences must be taken into account, particularly if the survey results are to be compared to earlier findings.*

## **CALCULATING HOW MUCH THE SURVEY WILL COST**

Survey costs can vary widely from country to country and from time to time. This variability depends not only on currency and labour costs, but also on the degree to which you can reduce costs by using existing facilities. Savings can be achieved, for example, by using government personnel for interviewing, public or government-provided transportation, or by obtaining free accommodations and meals for the survey team from local institutions.

Table 2.2 provides a number of possible expenditure items, many of which may not be applicable for particular countries. The items are based on a number of assumptions regarding sample size, number of fieldwork teams, team composition and the like. It assumes a total sample size of 6,000 households, an average cluster size of 20 households, and 300 sample clusters. It also assumes that the fieldwork will be completed in 54 days, by 8 fieldwork teams, each comprising 1 supervisor, 1 field editor and 4 interviewers. It also includes an 18-day training session for fieldwork, and a pre-test activity. The list excludes a number of other expenditures that may be applicable for some countries, such as those related to updating the sample frame, selection of the survey sample, etc. A detailed account of how fieldwork should be organized is provided in Chapter 5, where the same example is used.

A comprehensive MICS costing framework has been prepared to help standardize the process of figuring survey costs (see Tables 2.3 and 2.4). Country offices are advised to use this framework to help make the process of cost-sharing more transparent and MICS3 more cost-efficient. The framework incorporates a breakdown of expenditures within each type of activity. It is intended to help national statistical offices/implementing agencies identify activities needing donor support, and to help donors decide how costs can be shared. The framework can also be used to provide a comparison of MICS3 costs across time and countries.

To calculate how much the survey will cost, estimate the funds needed for each type of activity using the standard categories provided in Tables 2.3 and 2.4 (which can be expanded if necessary). Note that these tables include some additional cost and activity categories not included in Table 2.2.

**Table 2.2**  
**Common Survey Budget Items and Approximate Estimates**  
**for a Survey of 6,000 Households**

Budget item		Basis for calculation
<b>Personnel (salaries plus indirect costs)</b>		
Consultants .....		variable
<i>Pre-test</i>	Pre-test interviewers .....	20 individuals x 10 days
	Driver .....	1 driver x 5 days
<i>Training</i>	Trainees (field staff, data entry clerks + 10 %) .....	60 individuals x 18 days
<i>Fieldwork</i>	Field supervisors .....	8 supervisors x 54 days
	Field editors .....	8 editors x 54 days
	Interviewers .....	32 interviewers x 54 days
	Drivers .....	8 drivers x 54 days
Data entry clerks .....		4 clerks x 60 days
Computer programmers .....		1 programmer x 100 days
<b>Transportation</b>		
	Vehicle rental (fieldwork) .....	8 cars x 54 days
	Vehicle rental (pre-test) .....	1 car x 5 days
	Public transportation allowance (urban areas) .....	variable
	Fuel .....	provision for 8 cars x 54 days
	Contingency costs (repairs, ferries, etc.) .....	variable
	Consultant visits .....	variable
<b>Per diems (room and board)</b>		
<i>Pre-test</i>	Pre-test interviewers .....	20 individuals x 10 days
	Driver .....	1 driver x 5 days
<i>Training</i>	Trainees (field staff, data entry clerks + 10 %) .....	60 individuals x 18 days
<i>Fieldwork</i>	Field supervisors .....	8 supervisors x 54 days
	Field editors .....	8 editors x 54 days
	Interviewers .....	32 interviewers x 54 days
	Drivers .....	8 drivers x 54 days
<b>Consumables</b>		
	Stationery (paper, pencils, pens, etc.) .....	variable
	Identification cards .....	variable
	Envelopes for filing .....	variable
	Computer supplies (paper, CD-ROMs, diskettes, cartridges) .....	variable
<b>Equipment</b>		
	Boards, scales, Geographic Positioning Systems (GPS), salt test kits .....	10 boards, 10 scales, 10 GPS, salt test kit
<b>Other costs</b>		
	Venue hire (pre-test) .....	10 days
	Venue hire (training) .....	18 days
	Equipment maintenance .....	variable
	Sending questionnaires to implementing agency .....	variable
	Questionnaire and form printing .....	6,000 sets
	Photocopies of maps, listings, instruction manuals .....	100 of each item
	Communications (phone, fax, postage, etc.) .....	variable
	Report writing and printing .....	variable

**Table 2.3**  
**MICS Costing Framework:**  
**Items Included in Cost and Activity Categories**

<b>Cost categories</b>	<b>Activity categories</b>
<b>Personnel (salaries)</b> Consultants Field supervisors and editors Interviewers Drivers Translators Local guides Data entry clerks Computer programmers Overtime payments Incentive allowance Coordinating committee	<b>Preparation/sensitization</b> Preparation of questionnaire Preparation of dummy tables Translation and back-translation Pre-testing of questionnaire Publicity before and after fieldwork
<b>Per diem (room and board)</b> Field supervisors and editors Interviewers Drivers Translators Local guides (meal allowance) Consultants	<b>Pre-test</b> Training Data collection Data analysis Report on the pre-test
<b>Transportation</b> Vehicle rental Public transportation allowance Fuel Maintenance costs Consultant visits	<b>Survey design and sample preparation</b> Planning Sample preparation
<b>Consumables</b> Stationery (papers, pencils, pens, etc.) Identification cards Envelopes for filing Computer supplies (paper, CD-ROMs, diskettes, cartridges)	<b>Training</b> Preparation of training materials Translation into training language Implementation of training
<b>Equipment</b> Measuring equipment (scales and boards) Salt test kits Geographic Positioning Systems	<b>Main survey implementation</b> Implementation Monitoring and supervision Data retrieval
<b>Other costs</b> Printing (for questionnaire, etc.) Photocopies of maps, listings, instruction manuals Equipment maintenance Communications (phone, fax, postage, etc.) Report writing and printing	<b>Data input</b> Data entry Error checking
	<b>Data processing and analysis</b> Data processing Data cleaning Indicator production Tables of analysis
	<b>Report writing</b>
	<b>Dissemination and further analysis</b> Report printing Distribution Feedback meetings Further analysis Archiving

**Table 2.4**  
**MICS Costing Framework**

COST CATEGORIES	TOTAL COSTS	ACTIVITY CATEGORIES								
		Preparation/sensitization	Pre-test	Survey design and sample preparation	Training	Main survey implementation	Data input	Data processing and analysis	Report writing	Dissemination and further analysis
Personnel										
Per diems										
Transportation										
Consumables										
Equipment										
Other costs										
<b>TOTAL COSTS</b>										
Implementing agencies (names)										

**Supplementary details**

1. Sample size: \_\_\_\_\_ Number of households per cluster: \_\_\_\_\_ Number of clusters: \_\_\_\_\_
2. Fieldwork staff (numbers of) Interviewers: \_\_\_\_\_ Field supervisors: \_\_\_\_\_ Field editors: \_\_\_\_\_
3. Duration of training for main fieldwork (number of days): \_\_\_\_\_
4. Duration of fieldwork (number of days): \_\_\_\_\_
5. Number of data entry clerks: \_\_\_\_\_ Number of clusters per data entry clerk per day: \_\_\_\_\_
6. UNICEF contribution: \$ \_\_\_\_\_ Other UN/international/bilateral agency contribution: \$ \_\_\_\_\_  
Government contribution: \$ \_\_\_\_\_ Total budget: \$ \_\_\_\_\_

## CHAPTER 3

# DESIGNING THE QUESTIONNAIRE

*This chapter is for survey coordinators. It will help you to:*

- Decide which indicators will be measured with the survey
- Determine what information you need to collect
- Learn how to ask questions to obtain the information you need
- Design a good questionnaire
- Decide who the respondents will be
- Understand the contents of MICS3

### WHICH GOALS CAN BE MONITORED WITH MICS3?

In 2007, the United Nations General Assembly will hold a commemorative session to review progress made in implementing the World Fit for Children Declaration and Plan of Action. UNICEF will play a lead role in reporting on global advancement towards the World Fit for Children goals. National governments will also be asked to report on their progress. Through the Multiple Indicator Cluster Survey, UNICEF will support the collection of data needed to provide appropriate evidence and assist countries in preparing national progress reports. In addition to supporting an assessment of progress towards the World Fit for Children goals, MICS3 will also collect much of the data needed for evaluating how far we have come midway into the decade in reaching the child-related Millennium Development Goals (MDGs). As with previous rounds of MICS, it is important that countries first examine all sources of data already available or likely to be available by mid-2006 before deciding to conduct a third round of MICS.

The information provided in this chapter will help you collect data that can be used to plan and improve programmes as well as to report on progress towards global goals. The MICS3 questionnaires build upon the 1995 and 2000 rounds of the Multiple Indicator Cluster Survey, but provide additional questions and modules to monitor newly agreed upon indicators. If all additional and optional modules were to be added on to the core modules of the model questionnaires, MICS3 would be able to collect information on at least 99 internationally agreed upon indicators. The complete list of indicators that can be measured through MICS3 and used for global reporting are provided in Appendix One.

The MICS3 monitoring tool has multiple aims and several different groups of target respondents. This means that the data collection process is more complex than for previous rounds of MICS. You will need more resources to conduct the survey and to analyse and report your findings.

### MICS3 QUESTIONNAIRES FOR MID-DECADE MONITORING

MICS3 questionnaires provide the basic set of questions needed to obtain population-based estimates of a large number of indicators. As noted in Chapter 1, the questionnaire modules are the product of a long consultative period, and the indicators estimated through MICS3 are largely comparable with those obtained by using most other international household survey programmes. Of particular significance in this context is the Demographic and Health Surveys (DHS) project. UNICEF worked closely with MEASURE DHS to standardize questions so that many of these indicators can be measured using either one of these survey questionnaires. In countries where a recent DHS has been conducted, or will be conducted before the end of the first quarter of 2006, the DHS survey, rather than the MICS, should be used as the primary data collection vehicle.

For the current round of MICS, as in previous rounds, three model questionnaires have been designed: the Household Questionnaire, the Questionnaire for Individual Women and the Questionnaire for Children Under Five. These questionnaires include the so-called core modules. A number of additional modules and optional modules have also been designed, which can be easily integrated into the model questionnaires.

The MICS3 model questionnaires comprise 18 core modules (if information panels on each of the questionnaires are excluded). UNICEF strongly recommends that every participating country retain these core modules, unless the relevant data are available from another reliable source. In addition to these universal modules, there are eight additional modules that should

be used in countries where they are applicable and appropriate. These are modules to measure indicators related to topics such as malaria, children orphaned and made vulnerable by HIV/AIDS, polygyny, female genital mutilation/cutting and sexual behaviour. *These modules are necessary to monitor the priority indicators identified by UNICEF and should be included by all affected countries.*

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**UNICEF recommends  
retaining all core modules if possible,  
including additional modules if they are  
appropriate, and including optional  
modules if there is interest from the  
government and other stakeholders.**

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Finally, there are a number of optional modules that are supplied for countries with interest in particular areas, such as child discipline, child disability and unmet need for contraception, that are not covered in the model questionnaires or the additional modules. *Be selective about including optional modules, and be sure of what you will do with the data before deciding to include them.*

It is important to remember that the more modules that are included, the more complex the survey will become and the more difficult it will be to ensure that fieldwork produces high-quality data. Therefore you should choose only those question modules you actually need in your new survey. When another survey is planned, one or more modules can be 'piggy-backed' onto the existing questionnaire.

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**To develop your questionnaire, choose only the modules for indicators you need to monitor with a survey.**

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**EXAMPLE:**

If a country is planning to conduct a Demographic and Health Survey, you should request that DHS include the MICS3 Child Labour module. This module is not covered in the model DHS questionnaires, but can be easily added on to a DHS survey.

**WHY DO WE NEED MODEL QUESTIONNAIRES?**

The model questionnaires and the additional and optional modules have been designed for two reasons. First, they provide standard questions needed to estimate indicators of internationally agreed upon goals so that each country's indicators can be compared with others. If the survey methods are adequate and appropriate sampling techniques are used, these national indicators can also be compared with earlier estimates. Second, the questionnaires and modules provide questions and standard methodologies that countries can use to collect data to plan and improve a wide range of programmes. These questions can provide data at country and regional level to assess need, advocate for new programmes, modify old ones, and collect baseline data for evaluation when programmes begin.

Each country will want to adapt the model questionnaires and modules to meet their particular needs and circumstances. The information in this chapter will help you design a survey that is not only relevant, but that is easy to use and that will provide the best data possible. You will find out why each module appears in the questionnaires and how it can be adapted to furnish the data you need. At the same time, it will ensure that you can report valid, reliable and internationally comparable data to track your country's progress.

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**If you follow the advice in this chapter carefully, you can adapt the questions to serve the data needs of your programme, while ensuring that results are internationally comparable.**

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**HOW DO I DESIGN A GOOD QUESTIONNAIRE?**

The first step in designing a good questionnaire is to be clear about your aims and collect only the minimum amount of information necessary. Don't make the interview too long by including modules or

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**Collect only the minimum amount of information you need. Overloading the MICS3 questionnaires may compromise the quality of all the data collected in the survey.**

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questions that are not relevant to your needs. It is always tempting to add more questions. But you run the risk of overloading your field workers, demanding too much of your respondents and making data analysis too complex. You and your team need to know why each question is included and what you will do with the information after it is obtained. *Overloading the MICS3 questionnaires may compromise the quality of all the data collected in the survey.*

*On the other hand, retaining too few modules may result in very short questionnaires that lack the rhythm for a successful face-to-face interview.* It is important to remember that questionnaires are tools to systematically collect information from respondents in a conversational fashion. They should follow a logical pattern.

The following pages provide general guidance on constructing a good questionnaire. Once the questionnaire is designed, it will be in your best interests to send it to your UNICEF Regional Office and to UNICEF Headquarters in New York for review, to ensure that your customized questionnaire is internationally comparable and capable of producing estimates of internationally agreed upon indicators. Mechanisms will be created in each UNICEF region to make sure that you receive timely feedback on your survey tools and responses to other technical support needs. Implementing the survey will require careful preparation and oversight. Here too, you will need to stay in close contact with the MICS3 coordinator at UNICEF Headquarters and the UNICEF Regional Office.

The main aim of a good survey instrument is to minimize the amount of error that occurs when gathering information. Interviewers can only obtain answers that are reliable and valid if they are using well-designed questionnaires. By *reliable*, we mean that, no matter who asks the question or where and when it is asked, the same respondent would most likely give the same answer. When a questionnaire is well designed, each question is asked in the same way by every interviewer, and differences between interviewers will be kept to a minimum. By *valid*, we mean that the question elicits a response that is true and accurate, and measures whatever it is that you want to measure. A good questionnaire should enable you to obtain valid measures by helping to ensure that the respondent understands what information is being sought.

These considerations are especially important for monitoring surveys, since one of their purposes is to measure trends over time and to compare indicators internationally. A good design and translation, and thorough pre-testing of the questionnaire, can help make sure that your survey collects reliable and valid data.

**Table 3.1**  
**Sources of Error in Surveys**

Data from household sample surveys that collect retrospective information can contain errors for many reasons. These errors can be grouped under two main headings:

**Sampling error** arises by chance, because the survey questions a sample of respondents rather than the whole population. Errors can also arise because your sample does not adequately represent the entire population. You can avoid these kinds of errors by ensuring that your sampling frame is adequate and your sample size is large enough to enable your measurements to be precise. In Chapter 4, we discuss ways to avoid sampling and coverage errors.

**Measurement error** results from imperfectly measuring what you set out to measure. This kind of error is usually more serious than sampling error because it cannot be corrected, and sometimes cannot even be detected. One important way to avoid measurement error is to ensure that your survey is carefully designed. Chapter 3 explains how to go about that. Another way to avoid measurement error is to ensure that well-trained and supervised field staff conduct the interviews. Chapters 5 and 6 discuss this aspect of the survey in detail.

The core, additional and optional modules are designed to be used all over the world. Using these questionnaires verbatim is the best way to ensure that the results of your survey are comparable to the results from other countries and to the results from previous MICS. *For this reason, it is important to retain the exact wording of core questions in the model questionnaires.*

The other aim of a good questionnaire is to elicit the necessary information quickly and easily. As mentioned earlier, this means that it should contain the minimum number of

questions needed to obtain the required data. Both the interviewer and the respondents should be able to understand these questions easily. The wording and question sequence are designed to motivate respondents and help them recall difficult information. The survey instrument is designed to be manageable, economical and to intrude as little as possible on the activities and privacy of families that are interviewed.

However, even when you are using a good questionnaire, there is no guarantee that interviewers will stick to the correct interpretation of the questions. *Good training in the use of the questionnaire is essential.*

Instructions for administering the questionnaires are found in Appendix Three. You should translate this, if necessary, and make

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**Questions must be asked in the same way each time a survey is conducted.**

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**Your interviewers must learn how to ask questions properly. Be sure you use the interviewer guide to train your field staff.**

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copies for survey staff. Give a copy to each interviewer during the training programme. Advice on how to select and train interviewers is found in Chapter 5.

A guide to help you analyse the data obtained through the MICS3 questionnaires is provided in Chapter 8. In addition to estimating indicators at the national level, indicators can be tabulated by a range of background characteristics to allow the identification of disparities and their extent, sample sizes permitting.

### **CUSTOMIZING MICS3 QUESTIONNAIRES AND MODULES**

One of the most important lessons from previous rounds of MICS is that countries that adapted the model questionnaires too freely and without due consideration for a number of simple rules failed to produce high-quality, comparable data. Nor were they able to use standard data processing and tabulation plans or programs due to profound differences in the survey tools they were using.

It is common sense that no single model questionnaire can represent diverse experiences and realities of countries around the world. However, it is also true that successful adaptation or customization of survey tools to country situations is possible, while retaining comparability with other countries. You will decide on some of the changes or adaptations to be made during the initial process of designing the questionnaire. Others will be made after the questionnaires have been pre-tested (information on the usefulness of pre-testing is provided below).

In adapting the questionnaires, UNICEF recommends that the following guidelines be followed to ensure comparability and quality:

- First, decide on the indicators for which you need to collect data. This should be followed by the identification of modules that you will need to include in your questionnaires. Appendix One includes information on the numerators and denominators of all indicators covered by MICS3, as well as the modules in which they are found.
- In deciding on the modules you want to use, be aware that a decision to exclude one may affect another. A typical example is the Child Mortality module. One of the objectives of this module is to identify women who have had a live birth during the 2-year period preceding the survey. This will help identify those women who should answer questions contained in the Tetanus Toxoid and Maternal and Child Health modules.
- Retain the core modules in the model questionnaires as much as possible. These include internationally agreed upon indicators (many of which are MDG indicators) that are known to be applicable in almost all settings.
- Make a thorough assessment of whether your country is affected by issues in the additional modules. This will help you decide whether to include these modules. For example, all countries in which malaria is endemic should make sure to include additional modules on malaria, insecticide-treated nets and intermittent preventive treatment for pregnant women.

- Assess whether there is interest in the country in the optional modules. Make sure to consult other stakeholders and development partners to see if there is demand for data on these topics. In particular, determine whether the data collected by the optional modules would have any programmatic value.
- For reasons already discussed, do not overload the questionnaires.
- Retain the order of modules and questions unless there is a very good reason to do otherwise. Remember that for the majority of modules, the ordering suggested has been tested many times over the years, both in the context of previous MICS rounds and other international household surveys. MICS3 questionnaires have also been pre-tested by UNICEF Headquarters and have been modified and finalized based on the pre-test.
- Appendix Two provides information on some style and formatting characteristics of the MICS3 questionnaires and modules. These include standardization of question numbers, use of certain response codes for particular types of responses and other formatting features, such as the use of lowercase or uppercase letters. You should make sure to retain these standard characteristics.
- UNICEF recommends that the original question numbers be retained during the customization process, even when questions are deleted or inserted. This will facilitate the comparison of questionnaires from different countries, make the adaptation of model data processing programs by countries easier, and minimize the risk of producing modules where skip patterns may be incorrect.
- There might be a need to add questions to the MICS3 questionnaires that are not included in the model questionnaires or in the additional or optional modules. In doing so, utmost care should be taken to make sure that numbers assigned to the new questions do not replace the numbers on questions in the model questionnaires that may have been excluded because of their lack of relevance to the country situation. If new questions are added, they should be assigned numbers not used in the model questionnaires, or additional and optional modules. For instance, if a new question is to be added between HA15 and HA16, it can be assigned the number HA15A.
- UNICEF recommends that Latin numerals be retained in question numbers.
- In adapting response categories, you should first understand what the existing categories aim to capture. In some cases, a likely response category in a country may already be included in the model question, using a different term. In such cases, the wording can be changed to the term used in the country. If a new response category has to be added, it should not take up the numeric or letter code of a response category already used in the model questionnaires and modules.
- It is very important that the eligibility criteria, usually expressed in age ranges, not be changed. Eligibility criteria are based on the definitions of internationally agreed upon indicators, and such changes may result in an inability to measure the indicator. For instance, child discipline questions are asked of children aged 2-14 years, and indicators based on this module are calculated for this age group. If the age range were to be changed from 2-14 years to 2-9 years, for instance, this would mean that child discipline indicators could not be calculated. If changes are desired in this respect, they should only

be in terms of capturing a wider group; then, the appropriate age group can be selected during the analysis stage and the appropriate indicator calculated.

Once again, UNICEF strongly recommends that participating countries share their questionnaires with UNICEF Regional Offices and UNICEF Headquarters to make sure that rules are correctly followed when customizing the surveys. This will also enable UNICEF to provide technical assistance to survey implementing agencies, as needed.

### **TRANSLATING AND BACK-TRANSLATING QUESTIONNAIRES**

Survey questions have been carefully designed to measure each global indicator. Therefore, changes to the questions should be avoided as much as possible. This also applies to translations, where subtle changes in the meaning of questions can occur.

The question modules need to be translated into the respondents' local language *before* the survey begins. Translation should never be left to the interviewer, since small differences in interpretation can destroy the reliability and validity of your data.

In a separate operation, *another translator* should then translate the new questions back into English (or the original language), without referring to the original model. This new translation should match the original version. Discuss any ambiguous words or phrases and decide on the correct translation for the local language.

### **PRE-TESTING THE QUESTIONNAIRE**

The translated questionnaire needs to be ***pre-tested*** in the community, using respondents similar to the respondents likely to be in the survey sample. You will find more information about doing a pre-test in Chapter 5. This pre-test should identify any problem areas, misinterpretations or cultural objections to the questions.

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**The results of the pre-test should be incorporated into the final questionnaire.**

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**IMPORTANT:** *A pre-test of your questionnaire is very important, since it is easy to get it wrong the first time. A pre-test can provide a great deal of information for designing the final questionnaire and for planning other aspects of the survey process.*

You may find that the response categories for some questions are not sufficient to allow for the range of answers you receive. For example, you may need to add a particular type of health facility to the list of places where a woman might give birth (See Maternal and Newborn Health module). Or, you may find that there are categories that do not apply to your country.

Do not ignore the lessons of the pre-test, but also be careful not to change the order or the meaning of the questions. You may need to do more than one pre-test before your questionnaire is satisfactory. Discuss the results with experienced colleagues and with the interviewers, and decide what changes are needed. Follow the simple rules listed above. Make any changes necessary to the instructions to interviewers, to the wording of prompting questions and to the translation. Only then are you ready to reproduce the questionnaire forms.

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**Do not rush to print your questionnaires before you have done the pre-test and made the necessary changes.**

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**Table 3.2**  
**What a Pre-test Can Tell You**

- ✓ Are respondents willing to answer the questions in the form you propose to use?
- ✓ What are the country-specific response categories?
- ✓ Are any of the questions particularly difficult or sensitive? Do interviewers understand the questions? Extra training can focus on these questions.
- ✓ Do the respondents misinterpret the questions? Are any of the words ambiguous or difficult to understand? The pre-test should point to where changes in wording or improved translation are needed.
- ✓ Does the questionnaire flow smoothly? Can the interviewers follow the instructions easily?
- ✓ Is there adequate space on the form and are the answers clearly coded? The pre-test should show where the format needs to be improved before the final questionnaire is printed.
- ✓ Is it necessary to create new codes for common answers that were not included in the original questionnaires?
- ✓ How long does an interview take? The answer to this question will help you decide how many interviewers are needed and how long the fieldwork will take.

In summary, the final questionnaire should be the product of careful preparatory work. It should ask only for the information your programme needs and will use. It should be as short and as easy for interviewers to use as possible.

**Table 3.3**  
**Questionnaire Checklist**

- ✓ Questions should be clear and as short as possible; use simple language.
- ✓ The questions should flow clearly and logically, and the layout should make it easy to administer the questionnaire.
- ✓ Appropriate codes should be used for all response categories, and a code should be available for a category of answers that does not fit into the other response categories.
- ✓ Instructions to interviewers should be easy to follow and easy to distinguish from the questions to respondents.
- ✓ Make sure the questionnaires have been translated, back-translated and pre-tested.
- ✓ Check that the questionnaires provide *all* the information needed to calculate estimates for each indicator.

### RESPONDENTS TO MICS3 QUESTIONNAIRES

The *Household Questionnaire* is designed to be administered to every household drawn for the survey sample. You may begin the household interview with any knowledgeable adult who is usually living in the household visited. Most of the modules in the Household Questionnaire can be completed with this person, who is assumed to know the answers to basic questions about the dwelling and the household, such as the water and sanitation situation, and can be assumed to be knowledgeable enough to provide proxy information on other household members in regard to education, orphanhood, age and sex.

The model Household Questionnaire also includes a core module on Child Labour, however, which must be answered by the mother or primary caretaker<sup>1</sup> of the child about whom the questions are being asked. There are a number of other additional and optional modules (on Child Discipline and Disability, for example) that can be added to the Household Questionnaire, which also require that the mother or primary caretaker be interviewed. Responses from other household members are not acceptable. It is useful, therefore, to start the Household Questionnaire with a mother or primary caretaker. This will minimize the switching of respondents during the interview and may result in more reliable data (responses from mothers or primary caretakers regarding a child's education, for example, are likely to be more accurate than

<sup>1</sup> Primary caretakers are adults who take primary responsibility for raising a child if the mother of the child is deceased or does not live in the same household with the child. A person can be identified as the primary caretaker only if he/she lives in the same household with the child. Primary caretakers are used in MICS3 to ensure that information can be collected on motherless children. It is important to note that a primary caretaker is not an individual who takes care of the child when the mother is away. For instance, a person caring for a child during the daytime when the mother is at work is NOT a primary caretaker.

those obtained from another adult member of the household, even though they are eligible to supply such information).

All women of reproductive age (15–49 years) living in the household are eligible respondents to the *Questionnaire for Individual Women*.<sup>2</sup> Under no circumstances should a proxy respondent be accepted to answer questions on an eligible woman's behalf. All modules in this questionnaire, including additional and optional modules that may be added to it, are administered to the woman. It is very important to conduct this interview alone with the respondent, since the topics covered are sensitive in nature and answers may be biased in the presence of others. There are, however, modules in this questionnaire that some women will not be asked to respond to. For example, the modules on Tetanus Toxoid and Maternal and Child Health are only administered to women who have had a live birth during the 24-month period preceding the survey. Questions in the additional module on Sexual Behaviour are only asked of women aged 15–24 years.

In the *Questionnaire for Children Under Five*, each mother or primary caretaker is asked about the children under age five in her (or his) care.<sup>3</sup> The questionnaire is designed to ask all questions about all children under five, except in a few cases. This focus on children under five is intended to simplify the job of interviewers, so that they do not have to make too many decisions in the field about a child's age and eligibility for particular questions.

## THE MODEL QUESTIONNAIRES

Many of the indicators in MICS3 were also included in Multiple Indicator Cluster Surveys in 1995 and 2000, and the questions for measuring most of the indicators remain unchanged. In a few cases, the questions have changed slightly to conform to international agreement on the best measurement approach. For example, malaria indicators measured by MICS have been expanded and the questions to measure them have been harmonized with other malaria-specific surveys. In this section, we provide a module-by-module description of the current MICS3 model questionnaires. Questions that have been modified and questions that were not included in 2000 receive special attention. The organization and flow of the questionnaires is shown in Table 3.4. Refer to Appendix Two as you read the following sections.

### FLOW OF THE HOUSEHOLD QUESTIONNAIRE: CORE, ADDITIONAL AND OPTIONAL MODULES

The Household Questionnaire consists of seven core modules. All of these core modules can be completed with a knowledgeable adult household member (referred to as the main respondent for

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<sup>2</sup> A small number of countries will prefer to ask some of the modules in this questionnaire only to women who are or have ever been married. Although this approach should not be adopted unless absolutely necessary, there are ways of accommodating this additional element of eligibility into the questionnaires, which is discussed later in this chapter.

<sup>3</sup> When the relevant indicator targets narrower age groups, as in the case of breastfeeding and introduction of complementary foods, these narrower age ranges will be selected during data processing and analysis.



sake of convenience), with the exception of the Child Labour module, which has to be completed with the mothers or primary caretakers of children eligible for inclusion in the module.

The Household Questionnaire begins with a cover page, the Household Information Panel, which includes information on the household and should be completed for all sampled households, including those where the interview was not completed. This is followed by the Household Listing, used to collect information on all usual residents of the household, including their age, sex, relationship to the household head as well as questions on orphanhood. This module can be completed with the main respondent, although it is useful if the main respondent is also the mother or primary caretaker of children. The Education module includes questions on the educational attainment of household members who are 5 years of age or over, as well as school attendance for household members aged 5-24 years. The subsequent two modules, Water and Sanitation and Household Characteristics, concern the household and the dwelling and should be completed in all households with the main respondent to the Household Questionnaire. Completion of the next module, the Child Labour module, is to be carried out with the mothers or primary caretakers of children aged 5-14 years living in the household. The Household Questionnaire ends with a module on Salt Iodization, where the result of salt testing is to be recorded. Salt testing is carried out in all households in the sample.

Three additional modules have been designed for inclusion on the Household Questionnaire. Two of these modules, the Extended Household Listing and the Children Orphaned and Made Vulnerable by HIV/AIDS should be included together, since the former includes questions that determine eligibility for the latter. The Extended Household Listing is designed to replace the Household Listing module. The module on Children Orphaned and Made Vulnerable by AIDS is added on to the Household Questionnaire as a separate module and is administered to the main respondent to the Household Questionnaire, collecting information on children aged 0-17 years. In malaria-endemic countries, the module on Insecticide-Treated Nets is to be included as a separate module, and is administered to the main respondent.

The first of six optional modules in the Household Questionnaire, Additional Household Characteristics, consists of questions that should be added on to the core Household Characteristics module. The module on Security of Tenure and Durability of Housing is administered in households in urban areas that have large proportions of slum households, and is added to the end of the Household Characteristics module (or to the additional Household Characteristics module, if that is included). The questions included in the module on Source and Cost of Supplies for Insecticide-Treated Mosquito Nets should be inserted in the Insecticide-Treated Nets module, and should be administered in all households.

The optional modules on Child Discipline and Disability are administered to the mothers or primary caretakers of children eligible for these modules, those aged 2-14 years and 2-9 years, respectively. The final optional module on Maternal Mortality targets all household members aged 15 and over. The module is designed to allow for each of these respondents to answer the questions, but also allows for proxy responses from other adult household members.

**FLOW OF THE WOMEN'S QUESTIONNAIRE: CORE, ADDITIONAL AND OPTIONAL MODULES**

The Questionnaire for Individual Women is administered to all women aged 15-49 years, and consists of seven core modules. All modules in this questionnaire, including the additional and optional modules, are to be completed with a single respondent – the eligible woman. Under no circumstances should a proxy respondent be allowed to respond on behalf of the woman herself.

As mentioned earlier, some countries may decide to administer this questionnaire to ever-married women only. In some settings, topics such as contraceptive use or sexual behaviour may be considered inappropriate for women who have never been married for cultural reasons, or the incidence of sexual activity or contraceptive use may be negligible. In such cases, it is possible to collect information on the marital status of women in the Household Listing of the Household Questionnaire and modify the eligibility for the women's questionnaire to 'all women aged 15-49 years who have ever been married'. This is not recommended, however, since it introduces a new dimension to the identification of eligible woman, makes analysis more difficult, and relies heavily on the responses from the main respondent to the Household Questionnaire for the identification of the respondent. For these reasons, it is preferable to retain the eligibility criteria used in the model questionnaires, but to obtain information on the marital status of the woman in the Questionnaire for Individual Women and use this information to skip questions or modules that may be considered inappropriate. On the other hand, it is worthwhile to mention that, in many settings, never-married respondents are less reluctant to answer sensitive questions than survey administrators think they are. We therefore recommend that a thorough evaluation concerning the applicability of the questions be carried out and perhaps tested during the pre-test exercise, before a decision is made.

The Questionnaire for Individual Women begins with the Woman's Information Panel, which includes identification codes for the woman, as well as questions on age, date of birth and literacy. The module on Child Mortality is used to collect information useful for estimating infant and under-five mortality rates, as well as information on the timing of women's last birth, if any. This latter information is used to determine whether the woman should respond to questions in the subsequent two modules, on Tetanus Toxoid and Maternal and Newborn Health, which are applied to all women with a live birth within the 2 years preceding the interview. Following this are three modules administered to all women: Marriage/Union, Contraception and HIV/AIDS.

Four additional modules have been designed for the Questionnaire for Individual Women. For malaria-endemic countries, the Maternal and Newborn Health module has been expanded to include questions on intermittent preventive treatment for pregnant women. This additional module should be used to replace the Maternal and Newborn Health module in the core questionnaire. In countries where polygyny is practiced, the Marriage/Union with Polygyny module should be used to replace the Marriage/Union module. In affected countries, the Female Genital Mutilation/Cutting module should be added to the women's questionnaire as a separate module. The module on Sexual Behaviour is only applicable to women aged 15-24 years and

should be added immediately prior to the HIV/AIDS module. The inclusion of the module is advocated in countries where HIV infection rates are high.

Three optional modules have been designed for inclusion in the women's questionnaire. Of these, the modules on Security of Tenure and Attitudes Towards Domestic Violence should be added to the questionnaire as separate modules. The module on Contraception and Unmet Need, if included, replaces the Contraception module.

### **FLOW OF THE QUESTIONNAIRE FOR CHILDREN UNDER FIVE: CORE, ADDITIONAL AND OPTIONAL MODULES**

The Questionnaire for Children Under Five is administered to mothers or primary caretakers of all children under 5 years of age living in the household. All of the modules are applicable to all children for whom the questionnaire is administered. The model questionnaire consists of seven core modules. It begins with the Under-Five Child Information Panel, which, in addition to identification information, includes questions to determine the age and date of birth of the child. This is followed by modules on Birth Registration and Early Learning, Vitamin A, Breastfeeding, Care of Illness, and Immunization. The model questionnaire ends with the Anthropometry module, which is used to record the results of anthropometric measurements, that is, heights/lengths and weights of children.

One additional module, the Malaria Module for Under-fives, has been designed for inclusion in the Questionnaire for Children Under Five. This module is to be included in the questionnaire as a separate module if the country is malaria-endemic.

Four optional modules are available for inclusion in this questionnaire. The first of these is a module on Child Development, to be added to the questionnaire as a separate module. The remaining three modules are all on sources and costs of supplies, each of which is composed of a number of questions that are to be inserted in the relevant modules. The module on the Source and Cost of Supplies of ORS Packets, and the module on the Source and Cost of Supply for Antibiotics for Suspected Pneumonia are both inserted into the Care of Illness module, while the module on Source and Cost of Supply of Antimalarial Medicines is to be inserted in the additional module on Malaria for Under-fives, if this module is used.

Table 3.4 outlines the Household, Women's and Children Under Five Questionnaires, when all core, additional and optional modules have been included. The table should be used as a key to understand the place in which each additional or optional module should be added.

### **SALT TESTING, ANTHROPOMETRY AND GEOGRAPHIC POSITIONING SYSTEMS**

As indicated above, the administration of the questionnaires is accompanied by three types of measurements. First, as part of the Household Questionnaire, the salt used in the household for

cooking is tested for iodine content, by using salt testing kits. Salt testing is to be carried out at the time the Household Questionnaire is administered.

Second, the Questionnaire for Children Under Five includes a module on anthropometry, which is used to record the heights/lengths and weights of children. Use of standard equipment for this purpose is recommended. The recommended boards and scales are described in Appendix Five. In households where there is more than one child under age five, it is recommended that all measurements be carried out after completing all interviews, for logistical reasons.

Finally, UNICEF recommends the use of Geographic Positioning Systems (GPS) in MICS3. Such devices can be used to enhance the quality of data collected, open new avenues for data analysis, and aid fieldwork by making possible the easy identification of sample points. Uses of GPS devices in MICS3 are discussed in Chapter 5. Information on GPS equipment can be found at [www.childinfo.org](http://www.childinfo.org).

**Table 3.4**  
**Flow of MICS3 Questionnaires: Core, Additional and Optional Modules**

Household Questionnaire	Questionnaire for Individual Women	Questionnaire for Children Under Five
<p><b>HOUSEHOLD INFORMATION PANEL</b></p> <p>Extended <b>HOUSEHOLD LISTING FORM</b></p> <p><b>EDUCATION</b></p> <p><b>WATER AND SANITATION</b>  <i>Additional HOUSEHOLD CHARACTERISTICS + Security of Tenure and Durability of Housing</i>  <i>Insecticide-Treated Nets with Source and Cost of Supplies for Insecticide-Treated Nets</i></p> <p>Children Orphaned and Made Vulnerable by HIV/AIDS</p> <p><b>CHILD LABOUR</b>  <i>Child Discipline</i>  <i>Disability</i>  <i>Maternal Mortality</i></p> <p><b>SALT IODIZATION</b></p>	<p><b>WOMEN'S INFORMATION PANEL</b></p> <p><b>CHILD MORTALITY</b></p> <p><b>TETANUS TOXOID</b></p> <p><b>MATERNAL AND NEWBORN HEALTH</b> with Intermittent Preventive Treatment for Pregnant Women</p> <p><b>MARRIAGE/UNION</b> + Polygyny  <i>Security of Tenure</i></p> <p><b>CONTRACEPTION</b> and <i>Unmet Need</i>  <i>Attitudes Towards Domestic Violence</i></p> <p>Female Genital Mutilation/Cutting</p> <p>Sexual Behaviour</p> <p><b>HIV/AIDS</b></p>	<p><b>UNDER-FIVE CHILD INFORMATION PANEL</b></p> <p><b>BIRTH REGISTRATION AND EARLY LEARNING</b>  <i>Child Development</i></p> <p><b>VITAMIN A</b></p> <p><b>BREASTFEEDING</b></p> <p><b>CARE OF ILLNESS</b> + <i>Source and Cost of Supplies of ORS and Antibiotics</i></p> <p><i>Malaria + Source and Cost of Supply of Antimalarials</i></p> <p><b>IMMUNIZATION</b></p> <p><b>ANTHROPOMETRY</b></p>

*Core modules of the model questionnaires are shown in bold; additional modules are shown in normal text; optional modules are shown in italics.*

## HOUSEHOLD QUESTIONNAIRE

The Household Questionnaire contains questions to obtain data on household composition, education, household characteristics, water and sanitation, child labour, and salt iodization. For the purposes of MICS3, adults are defined as household members over the age of 15. Questions about current school attendance cover children and young adults aged 5 through 24 years. All countries should retain this age range. An age range of 5-14 years is set for the child labour indicators, but data may be collected for older children to accommodate country policies.

### HOUSEHOLD INFORMATION PANEL

The Household Questionnaire begins with a Household Information Panel, which contains space to record key information needed to link household information with information on individual women and children under five. Each country coordinator will need to write a short introduction that survey teams will use to explain why they wish to interview members of the household. A sample introductory sentence is provided on the model questionnaire, which should be customized to the country situation. *The introduction should contain an assurance that the information provided during the interview will remain confidential, and that respondents will not be penalized in any way if they refuse to participate. Respondents must be given the opportunity to refuse to participate if they so choose.* Other elements that should be included in the introduction are the name of the implementing agency, the approximate duration of interviews, the theme of the survey, and the fact that adults, including mothers or primary caretakers, will be interviewed.

The Household Information Panel consists of an upper and a lower panel. Most of the information to be recorded in the upper panel is known before the household is approached; this information relates to codes assigned to the household to identify it in the sample. The combination of cluster and household numbers assigned to the household before the interview begins is unique to each household in the sample. Identifying the supervisor and the interviewer is useful for monitoring and evaluating fieldwork. The date of the interview is also recorded here. It is important to ensure that this Information Panel stays attached to the rest of the questionnaire since it contains vitally important identification information for each household.

The lower panel provides space to record the results of the household interview and contains items that help to account for questionnaires for all eligible respondents in the household. There is also space for the data entry clerk to enter his or her identifying number.

Space is also provided on this page for notes about the interview. Here, the field supervisor will indicate an appointed time for the survey team to return to the household if no one is at home. When the interview is complete, this is marked on the information panel or the reason for non-completion noted.

## HOUSEHOLD LISTING FORM

Monitoring international goals means that adults, as well as children, become important targets for several survey modules. To ensure that the relevant respondents are identified, the questionnaire begins by listing all household members – that is, persons who usually live in the household<sup>4</sup> – adults and children. A household is a person or group of persons who usually live and eat together. Adapt this definition to fit the definition of a household in use in your country. It is very important that this household list includes children who reside in the household and do not live with their biological parents. The total number of household members is later used to compute indicators for water and sanitation. Basic demographic information – age, sex and relationship to the household head – is obtained in this module.

Information on age and sex is very important, since eligibility of household members for administration of the individual questionnaires, as well as for several modules, is based on age and sex. Information on age is in terms of completed ages.<sup>5</sup> The process of listing household members can be time-consuming, especially in households with very old individuals who do not know their ages. For this survey, the precise age of adults outside the prime reproductive and working years is not as vital as in other surveys. To conserve interview time, the code ‘98’ is provided for those older than 50 years of age whose precise age is not known.<sup>6</sup>

Eligibility for the Questionnaire for Individual Women, for the Child Labour module, and for the Questionnaire for Children Under Five has already been emphasized (Household Listing questions 6-8, or HL6-8 ). Children are linked to their mother or primary caretaker through the mother’s or primary caretaker’s line number from the household list.

Finally, there are questions to measure two important indicators: children’s living arrangements and prevalence of orphans living in households. For all household members under age 18, the questions ask if the biological mother and father are still alive and, if so, whether they live in the same household (HL9-12). These indicators are especially important in countries where adult mortality from AIDS poses severe threats to family well-being. It may also be possible to examine whether these children are more disadvantaged with respect to other indicators, such as education, than children living with their biological parents.

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<sup>4</sup> In MICS3, only *de jure* members (individuals who usually live in the household) are recorded in the household listing. Some countries may opt for a *de facto* sample, including all usual members as well as visitors to the household (determined by using a standard definition of a visitor, such as those who slept in the household the previous night), and selecting for analysis only the *de facto* household members. Both approaches have advantages and disadvantages.

<sup>5</sup> The total number of full years that an individual has lived.

<sup>6</sup> As mentioned earlier in this chapter, in a small number of countries marital status is needed to determine eligibility for the women’s questionnaire. Although this approach is not recommended, information on marital status can be obtained through the household listing. In such cases, a separate column should be added to the household listing.

## EDUCATION MODULE

The Education module begins with questions to assess the education level of household members who are 5 years of age and older, including all adults (Education module questions 2-3, or ED2-3). These questions are not needed to estimate MICS3 indicators, but can help to characterize the social status of the household. This information will be useful if the data are analysed further. Responses to these questions can be obtained from those at home at the time of the interview. However, the main respondent to the Household Questionnaire can also provide proxy responses to these questions.

### EXAMPLE:

You may want to discover if messages about National Immunization Days (NID) are reaching mothers with little or no schooling. Children who participated in the last NID can be tabulated according to the number of years their mothers or caregivers attended school.

Current and recent school attendance of children and young adults aged 5 to 24 years is also obtained through questions in the Education module (ED4-8). You will need to adapt the school year referred to in these questions to match your country's school year. These questions about school attendance should be asked about anyone who has reached age five, even if the usual age for entering school is later, up to and including age 24. We include persons up to age 24 in order to measure an MDG indicator, 'Female to male education ratio in primary, secondary and tertiary education'.

Children age five and above who are not yet in primary school may be attending pre-school or kindergarten, and this information is also obtained through the Education module. Response categories are provided for children age five and above who are attending pre-school and for children attending schools with non-standard curricula, such as schools that teach only the Koran or religious studies. To calculate education indicators, students attending schools that do not teach a standard curriculum must be excluded.

Note that questions ED4-8 are about school attendance during both the current and previous school year. Information on current school attendance is needed to calculate indicators related to enrolment and attendance. Information on attendance during the previous school year is needed to calculate transitions between school years, dropouts and repetitions.

## WATER AND SANITATION MODULE

Indicators to monitor the progress of water and sanitation programmes and progress towards MDG goals have been refined since the 2000 monitoring exercise. Accordingly, questions to monitor these indicators have changed slightly. The WHO-UNICEF Joint Monitoring Programme on Water Supply and Sanitation (JMP) has prepared detailed guidelines for measuring progress towards water and sanitation goals.<sup>7</sup>

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<sup>7</sup> The guidelines are available at [www.wssinfo.org](http://www.wssinfo.org)



In the MICS3 questionnaire, the response categories for questions about the source of drinking water and type of toilet facility have been adjusted to reflect new standardized definitions of ‘improved’ sources of drinking water and ‘improved’ sanitary means of excreta disposal. The following sources of drinking water are now defined as improved: water that is piped into a dwelling, yard or plot; public tap or standpipe; tube-well or borehole; protected dug well or protected spring; and rainwater collection. Bottled water is not considered an improved water source; it is only considered improved if water used for other purposes (Water and Sanitation module, question WS2) is also from an improved water source.

A question about how much time it takes to collect water is also provided in the module. To assess whether gender and generational differences exist among the persons who are usually responsible for hauling water for the household, WS4 is asked.

As programmes begin to promote home treatment of water to make it safer to drink, countries will want to monitor their success. To provide a baseline measure of home treatment of drinking water, two questions are asked (WS5-6).

The international indicator for measuring achievement of sanitation goals is the ‘proportion of population with access to improved sanitation’. For this international indicator, the new, standardized definition of an acceptable ‘sanitary facility’ is a flush facility that flushes to a piped sewer system, septic tank, or pit (latrine); a ventilated improved pit latrine; or a pit latrine with a slab. Only a latrine that has a squatting slab, platform or seat that is firmly supported on all sides and is easy to clean and raised above ground level (to prevent surface water from entering the pit) is considered acceptable. The new categories for WS7 make it easier to identify the type of toilet facility used by members of the household.

Definitions of each water source and type of sanitary facility listed are found in Appendix Three: Instructions for Interviewers. Pictorial aids are also available on the Internet to use when training fieldworkers.<sup>8</sup> Note that these pictorial aids should not be shown to respondents and should be used only for training interviewers.

The purpose of questions WS8 and 9 is to learn whether the household shares its sanitation facility with other households. The shared status of a sanitation facility is important because shared facilities can be less hygienic than facilities used by only a single household. Unhygienic conditions (faeces on the floor, seat or wall, and flies) may discourage use of the facility.

Survey coordinators will need to pre-test these questions to determine whether additional water sources, sanitary facilities, or types of home water treatment not already listed but typically used in the country need to be added to this list. *However, be sure to retain the categories shown in the model questionnaire.*

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<sup>8</sup> <http://www-staff.lboro.ac.uk/~cwrjs2/JMP-Final-Report.htm>

If you need more information about measuring the water and sanitation-related indicators, consult the Joint Monitoring Programme's *Guide for Water Supply, Sanitation and Hygiene Related Survey Questions*,<sup>9</sup> which provides more detailed information.

## HOUSEHOLD CHARACTERISTICS MODULE

For monitoring the Millennium Development Goals, it is very important to obtain information that will permit indicators to be disaggregated by socio-economic status. Such information will also be invaluable for later in-depth analysis. Further analyses will allow you to evaluate the equity of health programme coverage in your country, differentials in behavioural patterns by socio-economic status, and to assess disparities by wealth. If the data can identify population subgroups or geographic areas in need of special effort, programmes can be re-designed to help reach these groups and keep them on target.

**Evaluate the equity of health programme coverage by tabulating your results according to socio-economic status.**

The questions in this module require that response categories be adapted for specific country settings (HC1A–HC1C) and allow for local construction materials (HC3-5). Several questions are included that can be used to construct an index of household wealth<sup>10</sup> and can also be used to monitor a MDG indicator on use of solid fuels. In addition, information about cooking arrangements obtained in HC7 and HC8 can be combined with information about type of fuel (HC6). This information can be used to monitor child survival programmes that aim to prevent respiratory illnesses.

Finally, there are two questions to record possessions owned by the household and its members. These are also used to construct an index of household wealth. Additional questions that can improve the index, especially to make it more useful for identifying disparities in rural areas, are available in an optional module entitled Additional Household Characteristics, which is reviewed later in this chapter.

## CHILD LABOUR MODULE

A module to obtain information to monitor one of the child protection indicators, prevalence of child labour, is addressed to the caretakers of each child aged 5 through 14 years. The age of the target group may be adapted to the individual country situation, but should *include* children aged 5 through 14 years for reporting on the global indicator. Like all modules in this questionnaire, it is important to translate and pre-test these questions before printing the final questionnaire.

<sup>9</sup> <http://www.wssinfo.org>

<sup>10</sup> See also Filmer, D., and L. Pritchett. March 1999. 'The Effect of Household Wealth on Educational Attainment: Evidence from 35 countries'. *Population and Development Review* 25(1): 85-120; Rutstein, S.O., and K. Johnson. 2004. 'The DHS wealth index'. DHS Comparative Reports No. 6. Calverton, Maryland: ORC Macro.

Although it would be desirable to assess the risks working children face, such as whether they work in a hazardous occupation, this module contains only a minimum set of questions. With these questions you will be able to estimate – for children living in households – the prevalence of paid and unpaid employment outside the home. Responses to these questions can also be analysed in combination with information on school attendance from the Education module and with information on orphans from the Household Listing.

### **SALT IODIZATION MODULE**

Iodine deficiency disorder is the world's leading cause of preventable mental retardation and impaired psychomotor development in young children. In its most extreme form, iodine deficiency causes cretinism. It also significantly raises the risks of stillbirth and miscarriage for pregnant women. It is most commonly and visibly associated with goitre. Iodine deficiency disorder takes its greatest toll in impaired mental growth and development, contributing in turn to poor school performance, reduced intellectual ability and impaired work performance.

Iodization of salt is a key strategy for achieving the goal of eliminating iodine deficiency. This module is used to test the iodine content of salt used for cooking in the household.

There are two methods of iodizing salt: with potassium iodate or with potassium iodide. You will have to find out which method is used in your country for salt iodization at the production stage, and purchase the appropriate salt testing kit (see [www.childinfo.org](http://www.childinfo.org) for more information). The tested level of iodization must be 15 parts per million or more.

### **ADDITIONAL MODULES: EXTENDED HOUSEHOLD LISTING AND CHILDREN ORPHANED AND MADE VULNERABLE BY HIV/AIDS**

Many countries have seen a rapid increase in the number of children who are orphaned or made vulnerable due to AIDS, conflict or other causes. When parents die from AIDS, or families are separated by conflict, communities are usually the first to respond. However, governments have the wider responsibility to make sure that safety nets are in place. The module on Children Orphaned and Made Vulnerable by AIDS obtains information to measure five key indicators that can be used to monitor the national response to children who have been orphaned or are especially vulnerable because of AIDS. For more detailed information about indicators measured and questions used in this module, see *Guide to Monitoring and Evaluating the National Response to Children Orphaned and Made Vulnerable by AIDS*, which can be found at [www.childinfo.org](http://www.childinfo.org), or under the monitoring and evaluation section of the UNAIDS website, [www.unaids.org](http://www.unaids.org).

The indicators compare the well-being of children orphaned and made vulnerable by HIV/AIDS (OVC) to non-orphaned and non-vulnerable children. For these calculations to be useful, there needs to be a large enough number of OVCs recorded in the survey – at least 50 such children, at a minimum. To test whether your country should include this module, survey coordinators

should find out from previous surveys or knowledgeable professionals the expected proportion of children that have lost at least one parent. If this proportion is thought to be more than 8 per cent of all children living in households, then you can expect to obtain reliable results using this module. If the proportion of orphaned children is 8 per cent or less, you should not include the OVC module since the sample sizes are not likely to be large enough. In addition, if HIV prevalence among adults is less than 5 per cent, the children classified as OVC are not likely to be affected by AIDS, but are more likely to be affected by other causes of adult morbidity and mortality.

The eligibility of children for this module is ascertained by using both the Extended Household Listing and the Children Orphaned and Made Vulnerable by HIV/AIDS module. The Extended Household Listing module should replace the Household Listing module. By using these modules, the children who are considered orphaned or vulnerable can be identified as the following:

- Children under 18 years of age who have lost one or both parents
- Children under 18 years of age whose parent or parents have been ill for 3 of the past 12 months
- Children under 18 years of age who live in a household in which an adult (aged 18-59 years) has been ill for 3 of the past 12 months
- Children under 18 years of age who live in a household in which an adult (aged 18-59 years) has died during the past year and was ill for 3 of the past 12 months.

All children in a household where any child meets these criteria will be listed in the module on Children Orphaned and Made Vulnerable by HIV/AIDS, and questions about external support for them will be asked.

#### **ADDITIONAL MODULE: INSECTICIDE-TREATED NETS**

Malaria is a growing threat across the world, and its control is specifically mentioned in the Millennium Development Goals. One of the three key strategies for combating malaria identified by the Roll Back Malaria Partnership is vector control through insecticide-treated mosquito nets (ITNs). Nets used for sleeping that have been treated with an insecticide to repel or kill mosquitoes can substantially reduce malaria transmission, and programmes to provide access to ITNs are under way in many countries. This module provides questions to measure a key indicator, 'proportion of households that possess at least one ITN'.

The Roll Back Malaria Partnership considers malaria to be endemic in 106 countries. Some of those countries report that no transmission is currently occurring, or very few cases, and the use of this module is not appropriate in those countries. However, in areas at risk of malaria and in malaria-endemic countries where malaria transmission is known to be occurring, this module (and two additional malaria modules for women and children under five) should be included in the questionnaire.

A net treated with insecticide is effective in repelling or killing mosquitoes before they have the chance to bite. Various types of nets can be purchased. ‘Long-lasting Insecticidal Nets’ are ready-to-use, factory-pretreated nets that require no further treatment for 4 to 5 years. Efforts are now being made to scale up their production. Other types of nets require treatment with an insecticide every 6 to 12 months. These nets can be purchased already pre-treated with an insecticide or untreated, and can be treated or re-treated later.

*If you plan to include the malaria modules in MICS, you should contact the national malaria control programme in your country to obtain information on the different brands of nets used in the country.*

Survey coordinators must work closely with knowledgeable professionals in the national malaria control programme to identify all brands of treated mosquito nets that are available in the country, as well as prevention and treatment policies (covered in the other two malaria modules, for women and children under five).

This module contains questions to identify if a household possesses at least one insecticide-treated mosquito net. This is accomplished by using questions about the brands of treated and untreated nets available in the household, the length of time that the household has owned a pre-treated net, and, if applicable, when the most recent treatment of a net occurred.

Sometimes respondents do not know the brand name of the net or nets the household owns, and interviewers may attempt to examine the net to identify the brand. It is often difficult to actually observe nets used for sleeping, because families are concerned about the privacy of their sleeping quarters. In this case, the interviewer may try to identify the brand of net using pictorial aids. Survey coordinators will need to arrange to have photographs of each brand’s logo, if there is one, or the packaging in which the treated nets are sold to help with identification. Each interviewer should be given a copy of these photographs to show to respondents to assist them in identifying different brands of nets in the field.

### **OPTIONAL MODULE: ADDITIONAL HOUSEHOLD CHARACTERISTICS**

The discriminatory power of the wealth index<sup>11</sup> improves when increased numbers of household and personal items are included in the Household Characteristics module. The additional

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<sup>11</sup> Filmer, D., and L. Pritchett. 1998. ‘Estimating Wealth Effects Without Expenditure Data – or Tears: An application to educational enrolments in states of India’. *World Bank Policy Research Working Paper No. 199*. Washington, D.C.: The World Bank.  
<http://www.worldbank.org/html/dec/Publications/Workpapers/WPS1900series/wps1994/wps1994.pdf>

Filmer, D., and L. Pritchett. March 1999. ‘The Effect of Household Wealth on Educational Attainment: Evidence from 35 countries’. *Population and Development Review* 25 (1): 85-120.

Rutstein, S.O., and K. Johnson. 2004. ‘The DHS Wealth Index’, DHS Comparative Reports No. 6. Calverton, Maryland: ORC Macro.

questions suggested in this module provide a standardized way to include more items in the MICS3 questionnaire.

Recent research has shown that the inclusion of information on ownership of land and animals can increase the power of the index to distinguish the poor from the very poor in rural areas. It is recommended that countries add at least four additional household appliances so that the list includes at least three items that even a poor household may have, at least three items that a middle-income household may have, and at least three items that a high-income household may have. Some possible additions are clock, water pump, grain grinder, fan, blender, water heater, electric generator, washing machine, microwave oven, computer, VCR or DVD player, cassette or CD player, camera, air conditioner or cooler, colour TV, sewing machine.

### **OPTIONAL MODULE: SECURITY OF TENURE AND DURABILITY OF HOUSING**

Reducing poverty – and improving the lives of slum dwellers – is a major focus of the Millennium Declaration.<sup>12</sup> Slums are characterized by inadequate housing and access to public services. Security of tenure is an essential element to be addressed in improving the lives of slum dwellers. Information obtained with this module will be used to measure indicators relating to security of tenure and the durability of housing. Several items in this module, evaluated together with characteristics of the household in terms of crowding, sanitation and source of drinking water help to determine whether the household is a slum.

More specifically, a household is considered a slum on the basis of five characteristics. A structure is considered non-durable if the flooring material is natural and, at the same time, there are two or more poor conditions identified with the dwelling, or if it is vulnerable to accidents, or if the dwelling is located in a hazardous area. A household is considered overcrowded if the ratio of household members to the number of rooms used for sleeping is more than three. In cases when household members do not have formal documentation for the residence (such as title deeds or tenants contracts), or if household members feel at risk of eviction from the dwelling, the household is considered to lack security of tenure. Lack of improved sanitation facilities and drinking water sources complete the five components of the definition of ‘slum’. If the household bears one or more of these characteristics and is located in an urban area, it is considered a slum household. In other words, in MICS3, households are categorized as slums or non-slums after the data is collected and analysed.

This module should only be administered in urban areas, since slums are an urban phenomenon. The inclusion of the module does not only have implications for the questionnaire, but also the sample size, especially in areas where the module is to be administered. To be able to observe sufficient numbers of slum and non-slum households so that the lives of slum dwellers in comparison to non-slum dwellers can be evaluated, sample sizes in these areas will have to be increased.

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<sup>12</sup> United Nations Human Settlements Programme. May 2003. *Guide to Monitoring Target 11: Improving the lives of 100 million slum dwellers: Progress towards the Millennium Development Goals*. Nairobi: UN-HABITAT.

**OPTIONAL MODULE: SOURCE AND COST OF SUPPLIES FOR INSECTICIDE-TREATED NETS**

The questions in this module are for use by countries that want to monitor provision of free or subsidized supplies of insecticide-treated mosquito nets (ITNs). The questions are designed to be inserted into the additional module on ITNs, if used. The addition of these questions to MICS3 can provide a population-based assessment of the reach of such programmes, and the extent to which particular target groups may be covered by them.

The module provides questions tailored to obtain information about the source and cost of insecticide-treated mosquito nets. Many countries are now instituting programmes that promote the use of ITNs and make them available through various outlets. The price of an insecticide-treated net can be a barrier to ownership, and some programmes may provide nets free of charge. Programme managers may find it useful to obtain information about the source and cost of the net identified in the ITN module. When nets are available from both public and private outlets, information about the relative importance of each source may also be useful to programme planners.

**OPTIONAL MODULE: CHILD DISCIPLINE**

Physical violence towards children has been associated with behavioural and emotional problems as well as poor school performance. Family-support interventions designed to teach parents to use non-violent, non-abusive methods of discipline have been effective in reducing maltreatment of children and improving family functioning.

Documentation of child maltreatment is an important step towards implementing programmes to reduce family violence, but information from a wide range of countries about parental disciplinary practices is extremely limited. Data from large population-based sample surveys, which can be compared internationally, are scarcer still.

The purpose of this module is to obtain information to assess the use of a variety of physical and verbal ways of disciplining children. The questions were adapted from the Parent-Child Conflict Tactics Scale (CTS-PC) – an epidemiological instrument widely used to assess the treatment of children<sup>13</sup> – and are based on the WorldSAFE survey questionnaire, which has been used in developing countries to assess family violence.<sup>14</sup> This module, like the CTS-PC, includes items to measure a range of responses, from non-violent forms of discipline to psychological aggression to severe physical means of disciplining and punishing children. The scale has been

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<sup>13</sup> Straus, M.A., S.L. Hamby, D. Finkelhor, D.W. Moore, and D. Runyan. 1998. 'Identification of Child Maltreatment with the Parent-Child Conflict Tactics Scales: Development and psychometric data for a national sample of American parents. *Child Abuse and Neglect* 22(4): 249-270.

<sup>14</sup> Sadowski, L.S., W.M. Hunter, S.I. Bangdiwala, and S.R. Munoz. 2004. 'The World Studies of Abuse in the Family Environment: A model of a multi-national study of family violence'. *Injury Control and Safety Promotion* 11(2) 81-90.

tested in different parts of the world and found to provide valid results when careful field procedures are followed.<sup>15,16,17</sup>

### OPTIONAL MODULE: DISABILITY

For many years there has been strong international interest in obtaining good estimates of the prevalence of disability, particularly childhood disability.<sup>18</sup> Such estimates would provide excellent support for advocacy efforts on behalf of disabled children. The questions found in this module provide a simple screening test for children with disabilities. This screening instrument, the ‘Ten Questions’, is fairly easy to administer and has performed well in three different cultural settings to identify potential ‘cases’ of childhood disability.<sup>19</sup> Though the estimated sensitivity of the test (its ability to detect cases and not miss children later found to have a disability) is high and uniform across different conditions, the specificity of the test (its ability to exclude false positive cases – those children later found on examination not to have a disability) varies considerably by type of disability and among populations. These differences may stem from differences in parental perceptions, in the number of children actually attending school, and even differences in survival of seriously disabled children. This does not invalidate the usefulness of the Ten Questions as a screening device, but does mean that it should *not be used to measure even potential prevalence of disability cross-culturally*.<sup>20</sup>

The screening test should be followed by a second-stage study in which children identified as disabled, and a random sample of children who were screened and identified as not having a disability, undergo clinical evaluation. The results of the clinical evaluations will identify cases of disability (1) for estimating overall prevalence of serious disability and (2) to identify children in need of referral to community-based rehabilitation services.

Survey coordinators wishing to include this module to obtain information about childhood disabilities should consult the references listed (and posted on the World Wide Web at: <http://www.childinfo.org>). The follow-up evaluation of cases identified by screening to determine actual cases of disability must be done by a qualified clinician. Only then can a valid estimate of the prevalence of various types of disability be made. Please note: Vision and hearing

<sup>15</sup> Theodore, A.D., J.J. Chang, D.K. Runyan, W.M. Hunter, S. Bangdiwala, and R. Agans. 2005. ‘Epidemiologic Features of the Physical and Sexual Maltreatment of Children in the Carolinas.’ *Pediatrics* 115(3): e331-337.

<sup>16</sup> Runyan, D.K., C. Wattam, R. Ikeda, F. Hassan, and L. Ramiro. 2002. ‘Child Abuse and Neglect by Parents and Other Caretakers.’ In: *World Report on Violence and Health*, edited by Krug, E, L. Dahlberg, J. Mercy, A. Zwi, R. Lozano. Geneva: World Health Organization.

<sup>17</sup> Hunter, W.M., L.S. Sadowski, F. Hassan, D. Jain, C.S. DePaula, B. Vizcarra, and M.L. Amarilla. 2004. ‘Training and Field Methods in the WorldSAFE Collaboration to Study Family Violence.’ *Injury Control and Safety Promotion* 11(2): 91-100.

<sup>18</sup> Chamie, M. 1994. ‘Can Childhood Disability be Ascertained Simply in Surveys?’ *Epidemiology* 5(3):273-275.

<sup>19</sup> Zaman, S.S., et al. 1990. ‘Validity of the “Ten Questions” for Screening Serious Childhood Disability: Results from urban Bangladesh.’ *International Journal of Epidemiology* 19(3): 613-620.

<sup>20</sup> Durkin, M.S., et al. 1994. ‘Validity of the “Ten Questions” Screen for Childhood Disability: Results from population-based studies in Bangladesh, Jamaica and Pakistan.’ *Epidemiology* 5(3): 283-289.



disabilities must be assessed by another method. The ‘Ten Questions’ instrument does not provide a sensitive screening for these types of disabilities.

### **OPTIONAL MODULE: MATERNAL MORTALITY**

An optional module is provided for those countries wanting to estimate the maternal mortality ratio. The MICS3 module is unchanged from MICS2, and uses the indirect ‘Sisterhood’ method, which relies on a simple set of questions posed to all adults about the survival of their sisters. As simple as these questions are, measuring maternal mortality poses considerable difficulty. Because maternal deaths are rare events, even in countries with very high risk, large samples are usually required. Even with very large surveys it is difficult to estimate time trends in maternal mortality. Furthermore, maternal mortality is usually underreported. The estimates generated by the measurement techniques currently available are too imprecise to permit meaningful monitoring of maternal mortality over time. *Countries should not attempt to measure the maternal mortality ratio more often than every 10 years or so.* In the short term, indicators of health service use and quality of care are preferred for monitoring progress towards the MDGs.

#### **EXAMPLE:**

The care a woman receives at the time of delivery is linked to improved health outcomes. Attendance at delivery by skilled health personnel can be used as a proxy indicator of the impact of programmes to reduce maternal mortality. This indicator is measured in the MICS3 questionnaire.

The sisterhood method is *not* appropriate for use in countries likely to have a low maternal mortality ratio or where fertility is very low. It is also important to mention here that the sisterhood method used in MICS3 is an indirect method, which produces estimates centred on 10 to 12 years before the survey is carried out, an issue that countries should evaluate in regard to the usefulness of maternal mortality estimates.

If administered, the module is placed in the household questionnaire and all adults are target respondents for the questions. The main advantage is that each household is likely to have more than one adult respondent, each with different siblings. Thus, a somewhat smaller sample of households is needed to obtain a sufficient number of adult respondents.<sup>21</sup>

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<sup>21</sup> As a general guide (assuming two adults per household), a sample size of 5,500 households can be used to estimate a maternal mortality ratio expected to be around 500 per 100,000 births, where the total fertility rate is about 4.7.

## QUESTIONNAIRE FOR INDIVIDUAL WOMEN

The modules in the women's questionnaire are directed only to women aged 15-49 years. The questionnaire covers some very sensitive topics, and only female interviewers should be used. Special precautions should be taken to guard the confidentiality of women's responses.

The women's modules measure indicators of contraceptive use (an MDG indicator); access to skilled attendants at delivery (an MDG indicator); incidence of low birthweight (a World Fit for Children goal); post-partum vitamin A supplementation (a World Fit for Children goal); and tetanus toxoid coverage of infants (a World Summit for Children goal). Knowledge of HIV/AIDS is also obtained in a separate module (an MDG indicator). Questions to measure under-five and infant mortality rates (both MDG indicators) are also included in the Women's Questionnaire. An additional module of questions relevant to HIV prevention programmes is included to monitor changes in young women's sexual behaviour (an MDG indicator). This module is administered only to women 15-24 years of age and should be included in the core questionnaire where possible. Questions concerning sexual behaviour are sensitive in all countries and require skilled interviewers to administer these modules appropriately. Some survey coordinators may decide that the interviewer's training is not sufficient to address these sensitive issues. Survey coordinators and the MICS3 national steering committees must make the final decision about inclusion of this module.

The following section summarizes the most important things to note about modules in the Questionnaire for Individual Women.

### WOMEN'S INFORMATION PANEL

The women's questionnaire begins with a Women's Information Panel, which contains space to record key data needed to link information about individual women with information on her household and the children she cares for. The introductory sentence provided on the questionnaire should be customized to country circumstances. There will be no need to repeat these sentences to women who have already been respondents to the household questionnaire.

Cluster, household, woman's line number and interviewer identification is entered on the Women's Information Panel. It is important to ensure that this panel is not separated from the rest of the women's questionnaire, since it contains vitally important identification linking the woman to her household. This panel also provides space to record the results of the woman's interview.

Next, we obtain the woman's age, taking care to ascertain her true age. Further analysis of MICS3 data is possible, but will rely on accurate estimates of women's ages.

In this section we also obtain information on individual women's education, and, for women who did not attend school or attended only primary school, we test their ability to read a simple sentence. This literacy test is new to MICS3. This information will be used to measure MDG

indicator 8, on literacy. Survey coordinators should adapt the sentences provided as examples for the literacy test to sentences that are meaningful in their country, and translate them into relevant languages.

The sentences in each language should be printed on a separate card so that interviewers can choose the card with the appropriate language and show it to each respondent. There are several sentences on the card, so that if there is more than one respondent in a household, each one can be asked to read a different sentence. This will help to avoid one respondent overhearing the answers of the first, and simply repeating the sentence, even if she herself cannot read.

### **CHILD MORTALITY MODULE**

One of the overarching goals of the MDGs and the World Fit for Children is to reduce infant and under-five mortality. Monitoring progress towards this goal is an important but difficult objective. Measuring childhood mortality may seem easy, but attempts using direct questions, such as “Has anyone in this household died in the last year?” give inaccurate results. And using direct measures of child mortality from birth histories is time consuming and complicated. Demographers have therefore had to devise ways to measure childhood mortality indirectly. These ‘indirect methods’ minimize the pitfalls of memory lapses, inexact or misinterpreted definitions, and poor interviewing technique.

One of the most reliable methods is known as the ‘children ever born/children surviving’ (CEB/CS), or Brass, method of mortality estimation. This method uses data from a few simple questions about the number of live births a woman has ever had and the number of those children who have died to derive estimates of infant and under-five mortality. It does not require respondents to provide dates of birth or death, so the data can be gathered quickly.

The original version of the CEB/CS method – referred to in this manual as the ‘age-based’ method – relies on women’s reports of their ages to estimate the length of time that children have been exposed to the risk of dying. This is the main method that should be used in the current MICS; the Child Mortality module in the model questionnaire includes the necessary questions for it.

However, in countries where pregnancy outside marriage is rare, there is sometimes sensitivity about asking unmarried women about any births they may have had. Where questions on children’s births and deaths can only be asked of women who have ever been married, estimates of child mortality using the ‘age-based’ method becomes more complicated. In these countries, which are relatively few in number, the ‘marriage duration’ variant of the method should be used, based on questions from the Marriage/Union module. Before designing the questionnaire, survey coordinators and their technical advisers need to decide which version of the CEB/CS method to use.

Data collection, calculation and interpretation of mortality estimates are complex undertakings. *You should enlist the help of a local demographer or statistician who is conversant with these methods before you conduct the survey.* You should also obtain the recommended publications to assist you and your consultant demographer to collect, analyse and interpret these findings.<sup>22</sup>

It is important to note that if a woman has had no live births, the rest of the child mortality module and the next two modules are skipped over and the interviewer goes on to the Marriage/Union module. If she has ever had a live birth, the interviewer goes on to administer the entire Child Mortality module. The information from this module is combined with information on her age to make the estimates. The final segment of this module (CM11-12) inquires about live births within the past 2 years and has to be retained (along with CM1), even if the Child Mortality module is omitted, to determine eligibility for the Tetanus Toxoid module and the Maternal and Newborn Health module.

### **TETANUS TOXOID MODULE**

To estimate tetanus toxoid (TT) coverage among children under 1 year of age, mothers who have given birth in the 2 years preceding the survey must be identified (through questions CM11-12). The biological mother is then asked about her own tetanus toxoid immunizations. (Mothers often do not possess a card on which their own immunizations are recorded, but their recall is usually adequate.)

The questions in this module provide a proxy measure of the infant's protection against tetanus. Experimental at the time of the first MICS in 1995, these questions have now been validated. They performed very well, eliciting responses that matched results when infants were tested for tetanus antibodies.<sup>23</sup> The Demographic and Health Surveys (DHS) project has harmonized its questions about tetanus toxoid to match the MICS3 questions. This harmonization of questionnaires will enable the indicator for this international goal to be compared across many more countries than has been possible in the past.

This indicator has traditionally been calculated only for children under one still living at the time of the survey. The questions supplied in this MICS3 questionnaire will enable the calculation to be made for children under age one who are still living, and also for all children born in the year preceding the survey, whether they are still living or have died. To simplify the job of interviewers, all women who gave birth in the 2 years prior to the survey will be asked all questions in the Tetanus Toxoid and Maternal and Newborn Health modules. The selection of children born in the year before the survey will be made during data analysis.

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<sup>22</sup> The estimation method is explained more fully in: United Nations Department of Economic and Social Affairs. 1990. *A Step-by-Step Guide to the Estimation of Child Mortality*. Information on data collection and training can be found in: David, Bisharat, and Hill. 1990. *Measuring Childhood Mortality: A Guide for Simple Surveys*. Amman: UNICEF's Middle East and North Africa Regional Office.

<sup>23</sup> Deming, M.S., J.-B. Rongou, I. Heron, A. Yango, A. Guenengafo, and R. Ndamobissi. 2002. Tetanus Toxoid Coverage as an Indicator of Serological Protection Against Neonatal Tetanus. *Bulletin of the World Health Organization* 80(9):696-703.

### **MATERNAL AND NEWBORN HEALTH MODULE**

In this module, women who have had a live birth in the 2 years preceding the survey are asked about supplementation with vitamin A in the post-partum period. They are also asked about providers of antenatal care during the last pregnancy, procedures that were carried out during antenatal care, including counselling and testing for HIV, and delivery care. In the MICS3 questionnaire, one of the new additions concerns the place of delivery, which programme managers may find to be very useful information. Two short questions have been added to MICS3 to measure the prevalence of timely breastfeeding initiation (MN12-13). Putting an infant to the mother's breast – preferably within an hour after birth – helps forge a bond between mother and child and establish the practice of breastfeeding. This is an important indicator of newborn care, included for the first time in MICS3.

The last three questions in this module are used to estimate the incidence of low birthweight. Mothers are asked to give the numerical birthweight of their children, as well as to assess the relative size of their babies at birth. The relationship between mothers' assessment of relative size and the numerical weight for babies who were weighed at birth is then used to estimate the weight of infants for whom only relative size is available. They produce data to make a good estimate, in the aggregate, of the prevalence of low birthweight even for countries where many newborns are not weighed at birth.<sup>24</sup> These questions also enable one to calculate the proportion of babies not weighed at birth.

### **MARRIAGE/UNION MODULE**

This module is new to MICS3 and is included to obtain more detailed information about marital status. Data from questions in this module will permit measurement of several World Fit for Children indicators on child protection, including an estimate of the prevalence of early marriage (marriage before age 15 and age 18) and age differences between women and their spouses.

### **CONTRACEPTION MODULE**

This module obtains information to estimate the prevalence of contraceptive use among couples and contains three questions. (A few countries may restrict these questions to women who have ever been married, as previously discussed). The questions are designed to obtain information to estimate the prevalence of contraceptive use among women. These questions are personal and need to be introduced carefully by the interviewer.

The woman is asked if she knows a method to delay or avoid pregnancy, and, if so, which method she is currently using. For obvious reasons, pregnant women are not asked the current use question. A list of contraceptive methods is provided as possible responses, but responses

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<sup>24</sup> Boerma, T., K. Weinstein, S.O. Rutstein, and E. Sommerfelt. 1996. 'Data on Birth Weight in Developing Countries: Can surveys help?', *WHO Bulletin OMS* 74:209-216.

should *never* be prompted. Only spontaneous responses should be recorded. Multiple responses are allowed, as women might be using more than one method at the time of the survey.

### **HIV/AIDS MODULE**

The final module in the women's questionnaire aims to examine knowledge about HIV transmission and AIDS, attitudes towards persons living with HIV, and HIV testing (practice and knowledge). The purpose of this module is to obtain information to help programme managers and policy makers plan more effective programmes to prevent the spread of HIV.

The module is meant to be used in all countries, but there are notes on the questionnaire showing where and how several questions may need to be adapted locally. The wording of some of these questions has changed slightly since MICS2, because of testing and refinement in measuring key knowledge and stigma indicators by UNAIDS. For countries where injecting drug use is a common means of HIV transmission, an additional question about knowledge of this mode of transmission is provided in the module. The questions and the indicators that can be constructed from the data they provide were developed by UNAIDS and partners. They are part of a set of indicators used to help monitor changes in knowledge, attitudes and practices that are being promoted in HIV prevention programmes around the world.

First, questions are asked to determine the respondent's basic knowledge about HIV transmission. Questions are asked about ways to avoid HIV infection and to assess the prevalence of misconceptions about how HIV is transmitted.

Three questions aim to determine whether a woman knows that the AIDS virus can be transmitted from mother to child. Negative attitudes and discrimination against persons living with HIV affect efforts to prevent transmission and to care for infected individuals. Several questions are asked to obtain information about discriminatory attitudes and practices.

The purpose of the last four questions is to obtain information about the level of unmet need for HIV testing. They first ask about experience of HIV testing. Voluntary testing and counselling are now encouraged, in the belief that if a person knows his or her HIV status, he or she is more likely to adopt behaviours to prevent contracting the virus or, if positive, of transmitting it. Many of those who do get tested do not return to learn the results, but the proportion of those who do return should rise as the quality of pre-test counselling improves. To monitor the level of demand for such services, a question is included to obtain an estimate of the number of those tested who return to learn the result. A question to determine whether a woman requested the test or was required to take it is also included in MICS3. Finally, for those who have not previously been tested, respondents are asked if they know of a place where an HIV test can be performed.

As with all the modules in this questionnaire, it is important that interviewers administer this module with care. It is especially important that they be trained to read out each question in this

module exactly as it is written, and to ask questions in the order in which they appear. It is essential that the interview be conducted in a confidential setting.

#### **ADDITIONAL MODULE: MATERNAL AND NEWBORN HEALTH WITH INTERMITTENT PREVENTIVE TREATMENT FOR PREGNANT WOMEN**

In malaria-affected countries, several questions are added to the Maternal and Newborn Health module to estimate the effectiveness of programmes to provide pregnant women with intermittent preventive treatment for malaria.

Malaria infections can cause several pregnancy-related complications, malaria-related severe anaemia, and can even result in maternal death. In addition, malaria may cause adverse outcomes for the foetus, including low birthweight, spontaneous abortion and neonatal death. Interventions to reduce the risks of malaria-related pregnancy complications include the use of antimalarial drugs during pregnancy. The current recommendation from the Roll Back Malaria Partnership is to provide all pregnant women in areas with stable malaria transmission with at least two preventive treatment doses of an effective antimalarial drug (usually SP/Fansidar, a combination of sulfadoxine and pyrimethamine) during routine antenatal clinic visits. Three questions to estimate the use of intermittent preventive treatment are included in this module for areas where there is a malaria risk and countries where malaria is endemic (<http://rbm.who.int/wmr2005/> ).

The appropriateness of including these questions in the MICS will depend upon your country's policy regarding intermittent preventive treatment. Survey coordinators must work closely with knowledgeable professionals in the national malaria control programme to decide if these questions should be included.

#### **ADDITIONAL MODULE: MARRIAGE/UNION WITH POLYGyny**

Polygyny is the practice of a man having more than one wife. It is considered a harmful traditional practice for a young woman to have to enter into a polygynous union. In countries where polygyny is practised, this module is used to replace the core Marriage/Union module. It has several questions added to it to ascertain the prevalence of polygynous unions and the average number of partners in these unions.

#### **ADDITIONAL MODULE: FEMALE GENITAL MUTILATION/CUTTING**

Female genital mutilation/cutting (FGM/C) involves total or partial removal of the external female genitalia. The operation is performed on young girls, usually before they reach puberty, by traditional midwives and/or circumcision practitioners and frequently without anaesthesia.

Female genital mutilation/cutting can have severe physical and psychological effects. As a result, UNICEF and other international agencies are seeking to eradicate the practice and make the abolishment of FGM/C a human rights issue. Despite these efforts, the practice persists in many

countries, although to what extent is often unknown. The Female Genital Mutilation/Cutting module is designed to collect data on a woman's own experience of FGM/C as well as that of her daughter (if she has more than one daughter, the one most recently circumcised). These data will enable researchers to track intergenerational changes in the practice of FGM/C. Finally, a question to assess the woman's attitudes towards the practice is included. The module should be added to the Questionnaire for Individual Women following the Marriage/Union module, and should be addressed to all women aged 15-49 eligible for the survey.

#### **ADDITIONAL MODULE: SEXUAL BEHAVIOUR**

As the HIV epidemic spreads globally, it is increasingly clear that young people are at especially high risk. One of the reasons for this increased risk is that young people often do not have the information or the skills they need to protect themselves. Prevention programmes aim at persuading young women to delay their first sexual experience, to restrict the number of partners they have, and to use condoms with their partner each time they have sex.

In MICS3, a module is included to help countries obtain better information to develop or improve HIV prevention programmes for young people. This module, administered only to women aged 15 to 24 years (regardless of marital status), is designed to obtain information about young women's sexual behaviour. *It is extremely important that your interviewers ensure absolute privacy when administering this module.* It is also important that the women consent to answering these questions. It must be clear to every woman interviewed that she is *free to refuse* to respond to these questions if she is uncomfortable answering them. Special care must be taken to train interviewers (who must be female) to administer this module, so that their assurance to the woman that her answers are completely confidential can, in fact, be realized.

In some countries, the survey coordinators may feel that the questions on sexual behaviour are too sensitive to be included in a general household survey. If survey coordinators are concerned that including this module will jeopardize the quality of data gathered in other MICS modules, or that the interviewers will not be able to ask these questions easily, do not include this module. In some countries, you may decide to obtain parental consent before administering the questionnaire to women under age 18. Survey coordinators and the MICS3 national steering committees must decide if the module is suitable for inclusion.

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**It is extremely important that your interviewers ensure absolute privacy when administering the Sexual Behaviour module. You should provide extra training to interviewers if you plan to include this module in your survey.**

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The module begins with questions about the respondent's first experience of sexual intercourse, which is used to measure the prevalence of women having sex before age 15. This is followed by questions concerning the relationship she had to the man with whom she last had sex and condom use at that time. The prevalence of 'high-risk' sex among young women is measured as the proportion of these women who had sex with a partner to whom they were not married or



cohabiting with. An important indicator for programmes is the proportion of these women who used a condom when having ‘high-risk’ sex. This is a Millennium Development Goal indicator.

Sex between young women and older men can be especially risky since young women often lack the skills to effectively negotiate safe sex. Moreover, older men are more likely than younger men to be infected with HIV, because they have presumably been sexually active for a longer period of time. The module contains questions about the age of a woman’s last sexual partner, even if she does not know his exact age, in order to estimate the extent of ‘age-mixing’ in sexual relationships. As women better understand the risks, changes in their behaviour will be reflected in this indicator.

More information about these indicators and the methods for administering questions in this module can be found in *National AIDS Programmes: A guide to indicators for monitoring and evaluating national HIVAIDS prevention programmes for young people*. The guide can be found on the UNAIDS website at:

[http://www.unaids.org/en/in%2Bfocus/monitoringevaluation/m\\_e+library.asp](http://www.unaids.org/en/in%2Bfocus/monitoringevaluation/m_e+library.asp)

#### **OPTIONAL MODULE: SECURITY OF TENURE FOR THE WOMEN’S QUESTIONNAIRE**

The Security of Tenure module for the women’s questionnaire consists of only one question, designed to determine whether women feel secure from the risk of eviction. It is known that insecurity of tenure can be more pronounced with women, since women constitute a more vulnerable segment of society.

#### **OPTIONAL MODULE: CONTRACEPTION AND UNMET NEED**

This module adds several questions to the basic Contraception module used in the core questionnaire, and should replace that module. The expanded module provides a simplified approach to estimating the ‘unmet need for contraception’ in a country, as well as the ‘proportion of demand (for contraceptives) satisfied’. Unmet need is an indicator used by WHO and UNFPA, among others, to assess access to reproductive health services. Both indicators are useful for planners of family planning programmes since they measure the estimated proportion of couples in need of family planning methods. Using survey data, the proportion of women who have a potential need for some form of contraception, as well as the proportion in need of more effective modern methods of contraception (oral contraceptives, condoms, IUDs, sterilization), can be calculated.

Using the streamlined set of questions supplied in this module, women with unmet need are defined as those who are fecund (capable of getting pregnant), wish to avoid another birth or wait at least 2 years before the next birth, and are not using a method of contraception. Unmet need for modern contraception is calculated by adding to this definition all women who meet these requirements and are using traditional methods of contraception (periodic abstinence or withdrawal, which have low levels of effectiveness, or other ineffective traditional methods).

**OPTIONAL MODULE: ATTITUDES TOWARDS DOMESTIC VIOLENCE**

Women are vulnerable to abuse by their spouses and other household members, especially in countries where gender inequality persists. In many – if not most – countries, the problem of domestic violence is a hidden one. Discussion of the problem is infrequent, and the range of different attitudes of both men and women is often unknown. This lack of discussion and information often means that the problem of domestic violence is ignored. The following module – a single set of prompted attitudinal questions – is included as an option in MICS3 to shed light on the development of programmes to prevent domestic violence and to aid victims. It is designed to provide an assessment of what women of reproductive age (in this case, respondents to the women's questionnaire) consider normative behaviour with regard to domestic abuse.

## QUESTIONNAIRE FOR CHILDREN UNDER FIVE

The Questionnaire for Children Under Five is addressed to all caretakers of young children living in the household. The modules measure:

- prevalence of birth registration
- indicators of early childhood development
- vitamin A programme coverage
- breastfeeding
- care of diarrhoea
- care of suspected pneumonia
- malaria treatment and use of insecticide-treated nets
- immunization coverage
- nutritional status (anthropometry).

The inclusion of a separate Questionnaire for Children Under Five in MICS3 makes it possible to collect data on children whose mothers may have died or are living elsewhere. Such children usually constitute a more vulnerable group and it is important to obtain information on them. In many other similar surveys, such as the Demographic and Health Surveys (DHS), information on children under five is normally collected only if the mother is interviewed. Identification of a primary caretaker (through the Household Questionnaire) is essential, since he or she is a source of valuable information on these motherless children. Interviewers should take utmost care to ensure that the correct household member is identified as the caretaker.

### UNDER-FIVE CHILD INFORMATION PANEL

The Questionnaire for Children Under Five begins with a Child Information Panel containing space to record key information needed to link each child's information with information on his or her household and mother or primary caretaker. The introduction is repeated here to be read to caretakers of children who have not been respondents to the Questionnaire for Individual Women. *The child's mother or primary caretaker must be given the assurance that the information given during the interview will remain confidential, and that the respondent will not be penalized in any way if she/he refuses to participate. Respondents must be given the opportunity to refuse to participate if they so choose.*

Cluster, household, child, mother/caretaker and interviewer identification is entered on the Under-Five Child Information Panel. It is important to ensure that this panel stays attached to the rest of the questionnaire, since it contains vitally important identification information linking the child to household and caretaker information. This panel also provides space to record the results of the under-five child interview.

The children's questionnaire then begins with questions to obtain a precise birth date and age. Interviewers will have to probe, if necessary, to make sure that the child's date of birth is obtained as month and year, so that later on the child's age in months can be calculated (this is

important in estimating certain indicators, such as anthropometry, which rely on precise age calculations). Advantage is taken here of the fact that the child's mother or primary caretaker is likely to have the best information about the child's age. These questions also provide a good introduction to questions about birth registration.

### **BIRTH REGISTRATION AND EARLY LEARNING MODULE**

If there is a legal obligation to register births, these questions about registration may be perceived as threatening and must be administered with care. It is important that respondents understand that the information they provide is confidential and that individual data will not be disclosed to government authorities. The aim of the questions is to identify the extent of the problem of non-registration and obstacles to registration. You will need to pre-test these questions, and adjust to local needs the response categories regarding reasons for non-registration (BR3).

Two questions are provided to obtain information about attendance at organized early childhood education programmes. These questions only concern children aged 3 and 4 years. These questions are meant to obtain information about programmes that provide learning activities for pre-school children. Child-minding or babysitting alone does not qualify as an 'organized, early learning programme'. Survey coordinators should work together with UNICEF and government education advisers to translate this question, and train interviewers to effectively obtain the desired information.

A new addition to MICS3 is a series of questions to assess several indicators of support for early childhood learning and preparation for school. These questions concern all children under age five. Young children's readiness for schooling depends very much on a family environment that encourages the child's learning and development. Many studies in different parts of the world have shown that children from homes in which they are exposed to a variety of learning experiences, interacting with adult family members on a regular basis, are more likely to be successful in their early schooling. Moreover, experience has shown that it is possible to encourage and support parents' efforts to provide such experiences for their young children through appropriate intervention strategies.

The information provided by questions BR8A-F will enable you to assess the adequacy of the child's home learning environment. The extent of the father's engagement in a child's learning can also be estimated through the answers to these questions. The questions ask if any adult member of the household (that is, anyone over the age of 15) has engaged in a series of specific activities with the child that are developmentally stimulating.

### **VITAMIN A MODULE**

This question module is provided to monitor vitamin A supplementation programmes. All countries that have under-five mortality rates of 70 deaths per 1,000 or higher, or a vitamin A-deficiency problem of public health significance, are asked to include this module. A question to obtain data on where children usually receive the vitamin A dose is also provided for countries

that have supplementation programmes. Survey coordinators should provide interviewers with capsules or dispensers for different doses to help respondents remember which doses were administered. For children aged 6-11 months, doses of 100,000 International Units (IU) are used; for children aged 12-59 months, the prescribed dose is 200,000 IU.

When vitamin A deficiency is close to elimination, countries may measure the prevalence of low serum retinol by testing a subsample of the national sample or conducting a special survey. Guidelines for such a survey may be obtained from UNICEF's Nutrition Section.

**The vitamin A module is designed to monitor programme coverage. Countries with a known or likely vitamin A deficiency problem of public health significance should use the module.**

### **BREASTFEEDING MODULE**

This module provides five measures of infant feeding patterns, including exclusive breastfeeding, continued breastfeeding and timely complementary feeding rate, as well as frequency of complementary feeding.

As in the two earlier MICS, the 'current status' approach is used to assess current breastfeeding practices at the time of the survey. This approach, which asks about feeding practices in the 24 hours preceding the interview, is the *only* reliable method to obtain information about duration of breastfeeding in a cross-sectional survey. The numbers of children encountered in the age ranges of interest are likely to be quite small: children aged 0–3 months, 0-5 months, 6–9 months, 12-15 months and 20–23 months. In order to stay within feasible sample sizes, the precision with which breastfeeding indicators are measured may be less than that of some other indicators.

### **CARE OF ILLNESS MODULE**

In June 2004, UNICEF and WHO held a joint meeting with other key agencies to reach inter-agency consensus on a minimal set of indicators for monitoring progress towards goals related to child survival. One of the main aims was to maintain continuity with the established indicators used during the 1990s to track progress related to the World Summit for Children, as well as to harmonize the indicators with those already agreed upon by the international community, including those used in the MDGs.

For MICS3, this revised module incorporates almost all of the questions about diarrhoea treatment that were contained in the earlier MICS questionnaires. The questions ask about drinking and eating patterns during episodes of diarrhoea in the 2 weeks prior to the survey. A new indicator was agreed upon and has been added for oral rehydration therapy (ORT), which combines indicators on oral rehydration and home management of diarrhoea: 'ORT or increased fluids AND continued feeding received'.

Questions CA6-7 aim to identify a case of suspected pneumonia or other acute respiratory infection *needing assessment* by an appropriate health provider (as defined by WHO/UNICEF). The questions are limited to illness episodes that occurred in the 2 weeks prior to the survey.

For survey identification, the World Health Organization defines these suspected cases of pneumonia as children reported to have had an illness with a cough accompanied by fast and/or difficult breathing. A second question is used to filter out simple cases of a cold with a blocked nose: “Were/are these symptoms due to a problem in the chest or a blocked nose?” If a local term for ‘rapid breathing’ exists, using that term may be the simplest way to obtain cases of acute lower respiratory tract infection that should be seen by a health care provider.

Questions CA8-9 ask whether the caretaker sought care outside the household, and if so, where. The definition of ‘appropriate health care provider’ is usually agreed upon at the country level. A key strategy for reducing the number of suspected cases of pneumonia is prompt treatment with an appropriate antibiotic. For this reason, questions are also added to the MICS3 questionnaire to assess whether the child with suspected pneumonia was treated with an antibiotic.

Improper disposal of the faeces of young children poses a risk of diarrhoeal disease. A specific question has been included in the Questionnaire for Children Under Five to provide information about disposing of the waste of young children in the household (CA12).

Finally, question CA13 asks caretakers to name the signs of serious illness that would prompt them to seek immediate treatment for the child at a health facility. Parents or caretakers should be able to name at least two signs of serious illness. Some common responses are provided in the list. Other responses are also recorded. Responses should *never* be prompted. These data will enable you to calculate an indicator to monitor the success of this educational aspect of the Integrated Management of Childhood Illness (IMCI) programme.

## IMMUNIZATION MODULE

The questions on immunization remain virtually unchanged from the earlier MICS. However, the module must still be adapted to reflect vaccines and doses as specified on government-approved vaccination cards. Several vaccines that have come into more common use in countries have been added to the list of potential vaccines.

### EXAMPLE:

In countries where the combined measles, mumps and rubella vaccine (MMR) is used instead of measles vaccine alone, MMR should replace ‘measles’ in the list, just as it appears on the vaccination card. If both vaccines are in use, retain both items.

Other antigens may also be used in national immunization programmes, and several possible ones are also listed in the model questionnaire. Remove any that do not appear on vaccination cards and are not in use in your country.

**EXAMPLE:**

Measles vaccine is normally given as an injection in the arm at the age of 9 months. In some countries, measles vaccine is now given at 12 months or 15 or 18 months. In some countries, children may receive the vaccine as an injection in the thigh. Question IM17 will need to be adapted to reflect the usual age recommended for measles vaccine.

Vitamin A doses are now sometimes included on a child's vaccination card, especially if the supplements are delivered in routine child health clinic visits. We have included space for recording the dates of the two most recent doses of vitamin A, if recorded on your country's vaccination cards. If routine doses of vitamin A are indicated on vaccination cards in your country, you will be able to make some assessment of the regularity of dosing. Correct dosing is an important component of supplementation programmes, because children who are deficient in vitamin A need to receive supplements every 4 to 6 months – at least twice a year.

A question is also included that asks if any doses not shown on the card were given to the child, including vaccines received during a National Immunization Day. This includes campaigns that provide vaccines other than polio, such as measles immunization campaigns.

In some countries, vaccination cards are kept at health centres and are not given to mothers. In these countries, an additional page identical to the first page of the Immunization module in the questionnaire should be produced, and if necessary, health centres should be visited to record information from the child's health card. The module should be used in its entirety during the interview, however.

When no vaccination card is available, the caretaker is asked a series of probing questions (IM10-18) to ascertain the type of vaccine and the number of doses, or additional doses received. Lastly, participation in National Immunization Days can be obtained by inserting the dates of the most recent national campaigns (including non-polio campaigns and 'vitamin A days') in IM19 of the module. If possible, include the season of each campaign to help jog the memory of caretakers who cannot recall specific dates. Vaccine coverage rates are calculated based on card records and/or mothers' responses to probing questions; responses to the question on participation in National Immunization Days will *not* be added to the calculation of coverage.

**ANTHROPOMETRY MODULE**

Good nutrition is the cornerstone for survival, health and development of current and future generations. Well-nourished children perform better in school, grow into healthy adults and, in turn, give their children a better start in life. Undernutrition is implicated in more than half of all child deaths worldwide. Undernourished children have lowered resistance to infection, they are more likely to die from common childhood ailments like diarrhoeal diseases and respiratory infections; for those who survive, frequent illness saps their nutritional status, locking them into a vicious cycle of recurring sickness and faltering growth. The key indicators for monitoring the nutritional status of a child are underweight (weight for age – an MDG indicator), stunting

(height for age) and wasting (weight for height). These can be measured by obtaining the height or length and weight of the child along with the age in months.

The process of weighing and measuring children can be disruptive, and is best left until all the questionnaires for the household are complete. Weight and height or length (children under age two must be measured in recumbent position) are obtained last. To take these measurements properly, enlist the help of local experts to help design and conduct the training for measurers.

The training programme for measurers is crucial. Consult Appendix Five, Anthropometric Techniques, for more guidance. The training programme should always include practice weighing and measuring real children; you should obtain permission and make arrangements to carry out practice sessions at a local day-care or other facility where children are found. Be sure to make arrangements early to obtain the necessary equipment, so that you have it in place and ready for the field staff training (see Chapter 5, Preparing for Data Collection).

#### **ADDITIONAL MODULE: MALARIA FOR UNDER-FIVES**

This module contains questions that will provide the basic data to calculate indicators for malaria treatment and use of insecticide-treated mosquito nets. Cases of fever in the 2 weeks preceding the survey are identified. Caretakers are asked if any medicines were given to the child for fever or malaria, and if so, which ones were taken. The options include both anti-fever medications (antipyretics) such as paracetamol, and antimalarials.

The list of antimalarials must be formulated at country level, and country coordinators should work closely with the national malaria control programme to decide which malaria medicines are available and should be listed in the questionnaire. To facilitate identification, survey coordinators should also arrange to print photographs of packages of each common, locally used medicine. These photographs can be carried by the survey team and displayed to caretakers who may not know the names of drugs administered.

A new – and key – question regarding promptness of treatment has been added to this module for MICS3. Question ML9 asks about the time interval between the onset of the fever and when the child took the first dose of an antimalarial medication. This information is important to programmes because the most severe types of malaria progress very quickly and children must be treated promptly at onset of a fever. In MICS3, treatment received the same day or the next day is considered prompt treatment.

Several additional questions are also included in the malaria module. These ask whether the child received treatment at a health facility, and whether the child was treated at home before being taken to the facility. These questions provide information about the significance of caretakers compared to health workers as providers of antimalarial treatment. The information is essential for knowing where to intervene, although there are considerable differences among countries.



Finally, information on the use of insecticide-treated mosquito nets by children is obtained by asking the questions provided (ML10-15). With this information, an important global indicator to monitor changes in the use of such nets by children under five can be calculated.

### **OPTIONAL MODULES: SOURCE AND COST OF SUPPLIES FOR ORAL REHYDRATION SOLUTION PACKETS, ANTIBIOTICS FOR SUSPECTED PNEUMONIA, AND ANTIMALARIAL MEDICINES**

Three modules can be added on to the Questionnaire for Children Under Five to collect information on the sources and costs of supply for oral rehydration solution (ORS) packets, antibiotics for suspected pneumonia, and antimalarial medicines. As with the similar module on Insecticide-treated Nets, these modules are designed to provide population-based estimates of the reach of programmes on pneumonia, malaria and diarrhoea. Each of these modules consists of two simple questions that are inserted into the relevant modules. The questions relate to where the supplies were obtained and the amount paid for them.

### **OPTIONAL MODULE: CHILD DEVELOPMENT**

A young child's readiness for formal schooling depends very much on a family environment that encourages the child's learning and development. It is now well recognized that a period of rapid brain development occurs in the first 3 to 4 years of life – and the quality of the home environment is the major factor determining the child's development during this period. Many studies in different parts of the world have shown that children from homes where they are exposed to a variety of learning experiences and learning materials are more likely to be successful in their early schooling than children who lack these experiences.

Moreover, it has also been shown that it is possible to encourage and support parents' efforts to provide such experiences for their young children through appropriate intervention strategies. The information provided in this module will allow you to estimate the amount of developmentally stimulating activity that the child is engaged in. Several items in this module are components of the Home Scale, which was developed to measure support for learning in the household.<sup>25</sup> The results can be used to evaluate the adequacy of the young child's learning environment in the home. The data from this module should be useful in monitoring UNICEF's major new effort to put books into the hands of young children around the world.

An association has been found between having books in the household, including children's books, and stunting, vocabulary scores and the measure of a child's IQ. Exposure to books in the early years not only provides the child with greater understanding of the nature of print, but may also give the child opportunities to see others reading, such as older siblings doing school work. It is a simple measure to include and is important for later school performance.

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<sup>25</sup> Bradley R.H., R.F. Corwyn, H.P. McAdoo, C. Garcia Coll. 2001. 'The Home Environments of Children in the United States Part I: Variations in age, ethnicity, and poverty status'. *Child Development* 72 (6): 1844-1867.

The module includes questions on the variety and complexity of the child's play materials. Young children learn by manipulating objects – testing relationships, sequences and developing a sense of roles and functions in society. They imitate the activities of adults with things, learn social interactions, and keep working on problems (like how to make a simple car) until they can master them. Learning materials need not be purchased. Children enjoy not only store-bought items, but also objects from the household and outside the home. In fact, having learning materials made by family members is more likely to be predictive of later school performance, since it may tell us that the household has a greater recognition of the child's right to play, and makes a special effort to see that this right is exercised. These home-made toys require no money, but may involve skill and time – such as a ball made out of banana leaves or a doll from sticks tied together. Poverty probably reduces the number and availability of toys, time to play with them, and the child's energy to engage with the materials. Conversely, these activities can reduce the effects of poverty on children.

The module is also designed to collect information on two measures of potentially unsafe care-giving environments: children left alone, and children left in the care of young caregivers when their mothers are out. There is evidence that these potentially risky care situations may have less positive outcomes than when children are left with more mature caregivers, and are probably associated with an increase in accidents.

## CHAPTER 4

# DESIGNING AND SELECTING THE SAMPLE

*This technical chapter<sup>1</sup> is intended mainly for sample specialists, but also for the survey coordinator and other technical resource persons. It will help you:*

- Determine the sample size
- Assess whether an existing sample can be used, or decide on an appropriate sampling frame for a new sample
- Decide on the design of the new sample
- Gain awareness of issues related to subnational indicators and water and sanitation estimates
- Become better informed about weighting, estimation and sampling errors
- Learn about *pps* sampling and implicit stratification
- Find out about sample designs used in three countries for the 2000 MICS

Conducting a Multiple Indicator Cluster Survey in your country will be carried out on a sample basis, as opposed to collecting data for an entire target population. There are different target populations in the survey – households, women aged 15 to 49 years, and children under five and in other age groups. The *respondents*, however, will usually be the mothers or caretakers of children in each household visited.<sup>2</sup> It is important to recognize that MICS3 is a national-level survey and a sample from all households in the country will be chosen, not just those households that have young children or women of childbearing age.

### DETERMINING THE SAMPLE SIZE

The size of the sample is perhaps the most important parameter of the sample design, because it affects the precision, cost and duration of the survey more than any other factor. Sample size must be considered both in terms of the available budget for the survey and its precision

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<sup>1</sup> Users of the previous Multiple Indicator Cluster Survey Manual will note that this chapter is somewhat revised. Various changes include the formula for calculating sample size, greater emphasis on frame development and updating and on sampling error calculation, and inclusion of country examples from the year 2000 round of MICS.

<sup>2</sup> A *household* is defined in the Multiple Indicator Cluster Survey as a group of persons who live and eat together. Any knowledgeable adult (defined, for the purposes of MICS3, as a person 15 years of age or older) is eligible to be the main respondent to the Household Questionnaire. However, in many cases, the respondent will be a mother or a primary caretaker for the practical reason that these individuals are more likely to be at home at the time of interview.

requirements. The latter must be further considered in terms of the requirements for national versus subnational estimates. Moreover, the overall sample size cannot be considered independently of the number of sample areas – primary sampling units (PSUs) – and the size of the ultimate clusters. So, while there are mathematical formulas to calculate the sample size, it will be necessary to take account of all these factors in making your final decision.

### Getting Help

This chapter of the manual, though fairly detailed, is not intended to make expert sampling statisticians of its readers. Many aspects of sample design will likely require assistance from a specialist, either from within the national statistics office or from outside. These aspects may include calculation of the sample size, construction of frame(s), evaluation of the sample design options, applying the *pps* sampling scheme, computation of the weights, and preparation of the sampling error estimates. In any case, it is strongly recommended that the national statistics office in your country be consulted on the design.

Two general rules of thumb govern the choice on the number of primary sampling units and the cluster sizes: the more PSUs you select the better, as both geographic representation, or spread, and overall reliability will be improved; the smaller the cluster size, the more reliable the estimates will be.

#### EXAMPLE:

In a national survey, 600 PSUs with cluster sizes of 10 households each will yield a more reliable survey result than 400 PSUs with clusters of 15 households each, even though they both contain the same overall sample size of 6,000 households. Moreover, a cluster size of 10 is better than 15, because the survey reliability is improved with the smaller cluster size. In summary, it is better to strive for more rather than fewer PSUs, and smaller rather than larger clusters, provided other factors are the same.

In general, the more PSUs you select, the better your survey will be. However, the number of PSUs in your survey will be affected to a great extent by cost considerations and whether subnational estimates are needed (subnational estimates are discussed later in this chapter). Travel cost is a key factor. If the distances between PSUs are great and the same interviewing teams will be travelling from place to place (as opposed to using resident interviewers in each primary sampling unit), then decreasing the number of PSUs selected will significantly decrease overall survey costs. In contrast, if your survey requirements call for subnational estimates, there will be pressure on selecting more rather than fewer PSUs.

The choice of the cluster size is another parameter that has to be taken into account in determining sample size. Its effect can be assessed by the so-called sample design effect, or *deff*. The *deff* is a measure that compares the ratios of sampling variance from the actual stratified cluster survey sample (MICS3 in the present case) to a simple random sample<sup>3</sup> of the same overall sample size. If, for example, the calculated value of the *deff* from the indicator survey were to be 2.0, this would tell you that the survey estimate has twice as much sampling variance as a simple random sample of the same size.

Several specific examples of choosing the number of PSUs and deciding on the cluster size are given at the end of this section on sample size.

The costs of simple random sampling preclude it from being a feasible option for MICS3 and for household surveys in general, which is why *cluster* sampling is used. The factors that contribute to sample design effects are stratification, the cluster size and the cluster homogeneity – the degree to which two persons (or households) in the cluster have the same characteristic. For example, the increased likelihood of two children living in close proximity both having received a given vaccination, compared to two children living at random locations in the population, is an example of cluster homogeneity.

Stratification generally decreases sampling variance, while the homogeneity measure and the cluster size increase it. Hence, an objective in your sample design is to choose your cluster size so as to balance homogeneity, for which a smaller size is better, with cost, for which a larger size is usually better.

To calculate the sample size for the survey, the design effect must be taken into account in the calculation formula. There are two problems, however. First, while the value of *deff* can be easily calculated *after the survey*, it is not often known prior to the survey, unless previous surveys have been conducted on the same variables. Second, the value of *deff* is different for every indicator and, in fact, every target group, because the cluster homogeneity varies by characteristic. It is not practical, of course, to conduct a survey with *different* sample sizes for each characteristic based on their variable *deffs*, even if we knew what they were.

The *deffs* will not generally be known for indicators prior to the survey, but it is expected that they will be quite small for many indicators, that is, those based on *rare subclasses* (for example, children aged 12 to 23 months).<sup>4</sup> If there has been a previous household survey that collected similar data to that of the MICS, and used a very similar sample design, you may be able to use the *deffs* from this previous survey to assess the likely design effects for MICS3. Few household

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<sup>3</sup> A type of probability sampling in which  $n$  sample units are selected with equal probability from a population of  $N$  units, usually without replacement and by using a table of random numbers.

<sup>4</sup> The mathematical expression for *deff* is a function of the *product* of the cluster homogeneity and the cluster size. Even if the cluster size is large in terms of total households, it will be small in terms of this particular target population (1-year-old children), and so the *deff* is likely to be small also.

surveys calculate design effects, but the Demographic and Health Surveys (DHS) project is one good source of such information.

In the calculation formula and table for sample size in the following sections, we have assumed the design effect to be 1.5 (which may be somewhat high and therefore a conservative approach). In choosing a conservative *deff*, we want to ensure that the sample size will be big enough to measure all the main indicators. Nevertheless, a rule of thumb in choosing the cluster size and, by implication, the number of clusters *is to make sure that the cluster size is as small as can be efficiently accommodated in the field*, taking into account related considerations such as the number of PSUs and field costs (discussed above) and achieving interviewer workloads of a convenient size.

### CALCULATING THE SAMPLE SIZE

To calculate the sample size, using the appropriate mathematical formula, requires that several factors be specified and values for others be assumed or taken from previous or similar surveys. These factors are:

- The precision, or *relative* sampling error, needed
- The level of confidence desired
- The estimated (or known) proportion of the population in the specified target group
- The predicted or anticipated coverage rate, or prevalence, for the specified indicator
- The sample *deff*
- The average household size
- An adjustment for potential loss of sample households due to non-response.

The calculation of sample size is complicated by the fact that some of these factors vary by indicator. We have already mentioned that *deffs* differ. Even the margin of error wanted is not likely to be the same for every indicator (and, in practice, it cannot be). This implies that different sample sizes would be needed for different indicators to achieve the necessary precision. Obviously, we must settle upon *one* sample size for the survey.

The sample size calculation applies only to person-variables, even though it is expressed in terms of the number of households you must visit in order to interview individuals. This is because most of the important indicators for the MICS3 assessment are person-based. Household variables should not be used in the sample-size calculations because they require a different formula, as well as very different design effect (*deff*) values, as high as 10 or more.

The calculating formula is given by

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

where

- **n** is the required sample size, expressed as number of households, for the KEY indicator (see following section on determining the key indicator)
- **4** is a factor to achieve the 95 per cent level of confidence
- **r** is the predicted or anticipated prevalence (coverage rate) for the indicator being estimated
- **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*
- **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 (12 per cent thus represents the relative sampling error of r)
- **p** is the proportion of the total population upon which the indicator, r, is based, and
- **n<sub>h</sub>** is the average household size.

If the sample size for the survey is calculated using a key indicator based on the smallest target group, in terms of its proportion of the total population, then the precision for survey estimates of most of the other main indicators will be better.

Observant users of the MICS2 manual will notice that this formula differs in that *relative sampling error* (value of 0.12r) has been substituted for *margin of error* (e in the previous edition, with a value of either .05 or .03 for high and low coverage indicators, respectively). In the MICS2 manual, a reliable estimate for the survey was defined differently, depending upon whether it represents high or low coverage. For the indicator estimates, it was recommended that the margin of error, or precision, be set at 5 percentage points for rates of coverage (for example, immunizations) that are comparatively high, greater than 25 per cent, and at 3 percentage points for coverage rates that are low, 25 per cent or less. While a plausible rationale was given for presenting two margins of error defined in this way, users were nevertheless left with the often-difficult choice of which one to use for their survey, especially if the calculated sample sizes were widely different. By using the relative sampling error,<sup>5</sup> this problem is avoided altogether because it scales the margin of error to result in comparable precision irrespective of whether a high coverage indicator or low coverage indicator is chosen as the key one for sample size determination. Note, however, that the sample size is nevertheless larger for low coverage

<sup>5</sup> Statistically, the relative sampling error is known as the coefficient of variation and is defined as the standard error of a survey estimate divided by the estimate itself.

indicators, which is why it is important to choose carefully which indicator is *most key* for the survey (see the following section).

### DEFINING AND CHOOSING THE KEY INDICATOR TO CALCULATE SAMPLE SIZE

The recommended strategy for calculating the sample size is to choose an important indicator that will yield the largest sample size. This will mean first choosing a target population that comprises a small proportion of the total population ( $p$  in the above formula). This is generally a *target population of a single-year age group*.<sup>6</sup> In MICS3, this is children aged 12 to 23 months, which in many MICS3 countries comprise about 2.5 per cent of the total population. *We recommend using 2.5 per cent unless you have better estimates available for your country.* If, for example, your figure is higher (3.5, 4 or 5 per cent) your sample sizes will be considerably less than those in Table 4.3, so it is very important to use your best estimate of  $p$  for this target population. Second, the particular indicator must be chosen for this same target population. We will label it the *key indicator* (but only for purposes of calculating the sample size).

**Table 4.1**  
**Indicator Coverage Rates, Prevalence or Proportion**

Low coverage is *undesirable*

- Use of improved water sources or sanitation facilities
- School attendance
- Antenatal care and institutional deliveries
- Breastfeeding rates
- Immunization coverage rates

Low coverage is *desirable*

- Mortality rates
- Underweight, stunting or wasting prevalence
- Child labour

In making your decision on the key indicator, you will need to choose one with low coverage. Some low coverage indicators should be excluded from consideration, however. This can be explained by reviewing the indicators in Table 4.1, where examples are given of indicators for which low coverage is *undesirable* and the associated goal is focused on *raising* the rate (for example, the immunization rate for DPT, that is, diphtheria, pertussis and tetanus). The second

<sup>6</sup> In making your choice of the lowest-percentage population groups, it is strongly recommended that you exclude from consideration the four-month age groupings of children that form the basis for the breastfeeding indicators, because the necessary sample sizes would likely be impractically large.



set of indicators in Table 4.1 provides examples for which the opposite is true – low coverage is desirable and the goal is to lower it further (an example is stunting prevalence). *It would not make sense to base your sample size on indicators for which low coverage is desired and coverage is already very low; such indicators should be excluded when picking the key indicator.*

Table 4.2 provides suggestions for picking the target group and key indicator for purposes of calculating the sample size directly or finding the sample size in Table 4.3. Note that the infant mortality rate (IMR) or the maternal mortality ratio (MMR)<sup>7</sup> are not mentioned as candidates for the key indicator. This is because the sample sizes that would be necessary to measure these indicators are much too large – in the tens of thousands – and it would be impractical to consider them. This does not necessarily mean that such indicators should not be measured in the survey, but rather that the sample size for the survey should not be based on them. The survey results for these indicators will have larger sampling errors and, hence, wider confidence intervals than the other indicators.

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<sup>7</sup> Regarding sample size for measuring the maternal mortality ratio: A 1997 guide by WHO and UNICEF entitled ‘The Sisterhood Method for Estimating Maternal Mortality’ recommends that if the maternal mortality ratio is 300 (per 100,000 live births), it can be estimated with a sample size of about 4,000 respondents with a margin of error of about 60, utilizing the indirect sisterhood method.

**Table 4.2**  
**Checklist for Target Group and Indicator**

To decide on the appropriate target group and indicator that you need to determine your sample size:

1. Select two or three target populations that comprise small percentages of the total population. Normally, these target groups should not be narrower than 1-year age groups, or wider than 5-year age groups. In MICS3, these will typically be children aged 12-23 months, or children under 5 years, which would, in many countries, comprise 2-4 per cent and 10-20 per cent of the total population, respectively.
2. Review important indicators based on these groups, ignoring indicators that have very low (less than 5 per cent) or very high (more than 50 per cent) prevalence. Begin calculations with your smaller group. If the indicators based on this group are high coverage, perform calculations for the wider age group, for which indicators might have lower coverage.
3. In general, pick an indicator that has a fairly low coverage rate for target populations comprising 10 to 15 per cent of the population, on the order of 15 or 20 per cent. For target populations comprising less than 5 per cent of the population, pick an indicator that has slightly higher coverage, above 20 per cent, but below 50 per cent.
4. Do not pick from the desirably low coverage indicators an indicator that is already acceptably low.

In making your choice, you must also consider the *relative* importance of the various indicators in your country. For example, you would not want to use an indicator that requires a very large sample size if that indicator is of comparatively small importance in your country.

### USING THE SAMPLE SIZE TABLE

Table 4.3 shows sample sizes already calculated on the basis of MICS3 requirements, plus certain assumptions. You may use the table values, if they fit your situation, to get your sample size. Otherwise, you or your sampling specialist may calculate the sample size directly, using the formula given below.

If the parameters in Table 4.3 fit the situation in your country, you can find the sample size without having to calculate it using the formula above. In Table 4.3, the level of confidence for the precision of the estimates is pre-specified at 95 per cent. Varying values of the average household size and coverage rate,  $r$ , are used – from 4.0 to 6.0 and from 0.25 to 0.40, respectively. The *deff* is assumed to be 1.5 and the precision (margin of error) level is set at 12 per cent of  $r$ , that is, a 12 per cent relative sampling error. The table reflects a 10 per cent upward adjustment in sample size to allow for potential non-response in the survey.

*It is crucial to note that the table also assumes that the target population for your key indicator comprises 2.5 per cent of the total population. If it is a different value, you cannot use the table to find the required sample size. In general, the table cannot be used when any of the assumed values for the parameters of the formula do not fit your situation. More about what to do in this case is provided later in this section.*

**Table 4.3**  
**Sample Size (Households) to Estimate Coverage Rates for Smallest Target Population**  
**(with Relative Sampling Error of 12 Per cent of Coverage Rate at 95 Per cent Confidence Level)**

Average Household Size (number of persons)	Coverage Rates (r)			
	$r = 0.25$	$R = 0.30$	$R = 0.35$	$r = 0.40$
4.0	13,750	10,694	8,512	6,875
4.5	12,222	9,506	7,566	6,111
5.0	11,000	8,556	6,810	5,500
5.5	10,000	7,778	<b>6,191</b>	5,000
6.0	9,167	7,130	5,675	4,583

Use this table when your

- Target population is 2.5 per cent of the total population; this is generally children aged 12-23 months
- Sample design effect,  $deff$ , is assumed to be 1.5 and non-response is expected to be 10 per cent
- Relative sampling error is set at 12 per cent of estimate of coverage rate,  $r$

If all the assumptions for the parameter values of the formula pertain in your country, then one of the sample sizes in Table 4.3 should fit your situation. In some cases, the parameters may apply, but the coverage rate you choose has to be interpolated. For example, if your coverage rate is between 30 per cent and 35 per cent you may figure the sample size by interpolating a value between the third and fourth columns of the table. To illustrate: in the last row for a 32.5 per cent coverage rate, your sample size would be halfway between 7,130 and 5,675, or about 6,403 households.

A stepwise illustration of the use of Table 4.3 can be given as follows:

- First, satisfy yourself that all the parameter values used in Table 4.3 apply in your situation.
- Next, from Table 4.2, pick the indicator that has the lowest coverage, excluding any indicator that is already acceptably low. Suppose it is measles immunization at 35 per cent.
- Next, find the average household size in Table 4.3 that is closest to that in your country (assuming it is within the ranges shown). Suppose it is 5.5 persons.
- Finally, find the value in Table 4.3 that corresponds to a household size of 5.5 persons and 35 per cent coverage rate. That value is 6,191.

The figures should not, however, be taken as exact, but only as approximate sample sizes; remember that several assumptions were made in calculating the sample sizes. It would make sense to round the sample sizes up or down depending upon budget restraints. In this example, you might decide that 6,100 or 6,200 would be appropriate after you consider travel costs between primary sampling units, cluster sizes and interviewer workloads.

### **USING THE SAMPLE SIZE FORMULA<sup>8</sup>**

What happens to the sample size calculations if all the assumptions of the parameter values pertain, except that the proportion of children aged 12-23 months in your country is not 2.5 per cent, but instead is closer to 2.0 per cent? In that case, simply multiply all of the numbers in Table 4.3 by 2.5/2, or 1.25, to come up with the sample sizes. This is important since the sample sizes are significantly larger, an increase of 25 per cent.

There are situations, however, when it is best to ignore Table 4.3 and calculate the sample size directly using the formula below. The formula must be used when any of the parameter values in your country differ from the assumptions used in Table 4.3. Table 4.4 outlines the conditions under which the formula should be used.

We have already discussed why the sample size must be larger if  $p$  is smaller than 0.025. Unless the illustrated example above conforms to the situation in your country, the formula below should be used for calculating the sample size. To repeat, the formula below must be used if any of the other parameter values fit the criteria outlined in Table 4.4.

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<sup>8</sup> An Excel template for calculating sample size can be found at [www.childinfo.org](http://www.childinfo.org)

**Table 4.4**  
**Checklist for Use of Sample Size Formula**

The formula to determine your sample size is given by:

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

Use it if any (one or more) of the following applies in your country:

- The proportion of 1-year-old children (p) is other than 0.025
- The average household size ( $n_h$ ) is less than 4.0 persons or greater than 6.0
- The coverage rate of your key indicator (r) is under 25 per cent
- The sample design effect (f) for your key indicator is different from 1.5, according to accepted estimates from other surveys in your country
- Your anticipated non-response rate is more or less than 10 per cent.

Do not change the confidence level in the formula, but keep its value at 4.

Using the formula is quite easy, since it is basic arithmetic once the parameter values are inserted. For example, for  $r = 0.25$ ,  $f = 1.6$ , non-response adjustment = 1.05,  $p = 0.035$  and  $n_h = 6$ , we have

$$n = \frac{[ 4 (0.25) (1-0.25) (1.6) (1.05) ]}{[ (0.12 \times 0.25)^2 (0.035) (6) ]} = \frac{1.26}{0.000189} = 6,667$$

*In previous MICS surveys, the typical sample size has ranged between 4,000 and 8,000 households. That range is a plausible target for you to strive for when doing your calculations on sample size, considering both reliability requirements and budgetary constraints. As we mentioned already, MICS3 will produce estimates of many indicators, each of which will have its own level of precision. It is therefore useful to examine the approximate levels of reliability – standard errors and confidence limits – on your indicators for a particular sample size.*

Table 4.5 illustrates those levels of reliability for a sample of 6,000 households, which may be regarded as a typical sample size for producing comparatively reliable estimates for most indicators of interest in MICS3.

**Table 4.5**  
**Expected Reliability Measures (Standard Error and Confidence Interval) for Sample of**  
**6,000 Households under Various Demographic Alternatives**

Average household size	Size of indicator r	Size of subpopulation P	Number of sample persons in subpopulation	Number of persons with indicator	Standard error	Confidence interval (95% level)	
						Lower	Upper
4	0.10	.025	540	54	.016	.068	.132
		.05	1,080	108	.011	.078	.122
		.125	2,700	270	.007	.086	.114
		.20	4,320	432	.006	.089	.111
	0.20	.025	540	108	.021	.158	.242
		.05	1,080	216	.015	.170	.230
		.125	2,700	540	.009	.181	.219
		.20	4,320	864	.007	.185	.215
	0.30	.025	540	162	.024	.252	.348
		.05	1,080	324	.017	.266	.334
		.125	2,700	810	.011	.278	.322
		.20	4,320	1,296	.009	.283	.317
	0.50	.025	540	270	.026	.447	.553
		.05	1,080	540	.019	.463	.537
		.125	2,700	1,350	.012	.476	.524
		.20	4,320	2,160	.009	.481	.519
5	0.10	.025	675	68	.014	.072	.128
		.05	1,350	135	.010	.080	.120
		.125	3,375	338	.006	.087	.113
		.20	5,400	540	.005	.090	.110
	0.20	.025	675	135	.019	.162	.238
		.05	1,350	270	.013	.173	.227
		.125	3,375	675	.008	.183	.217
		.20	5,400	1,080	.007	.187	.213
	0.30	.025	675	203	.022	.257	.343
		.05	1,350	405	.015	.269	.331
		.125	3,375	1,013	.010	.281	.319
		.20	5,400	1,620	.008	.285	.315
	0.50	.025	675	338	.024	.453	.547
		.05	1,350	675	.017	.467	.533
		.125	3,375	1,688	.011	.479	.521
		.20	5,400	2,700	.008	.483	.517
6	0.10	.025	810	81	.013	.074	.126
		.05	1,620	162	.009	.082	.118
		.125	4,050	405	.006	.088	.112
		.20	6,480	648	.005	.091	.109
	0.20	.025	810	162	.017	.166	.234
		.05	1,620	324	.012	.176	.224
		.125	4,050	810	.008	.185	.215
		.20	6,480	1,296	.006	.188	.212
	0.30	.025	810	243	.020	.261	.339
		.05	1,620	486	.014	.272	.328
		.125	4,050	1,215	.009	.282	.318
		.20	6,480	1,944	.007	.286	.314
	0.50	.025	810	405	.022	.457	.543
		.05	1,620	810	.015	.470	.530
		.125	4,050	2,025	.010	.481	.519
		.20	6,480	3,240	.008	.485	.515

Column 4 in Table 4.5 shows the expected number of persons to be interviewed in a 6,000-household sample, assuming a non-response rate of 10 per cent. For example, in a country where the average household size is four persons, the number of sample persons in a subpopulation comprising 2.5 per cent of the total population (say, children aged 12-23 months) would be about 540, instead of 600, after allowing for non-response. Of those, column 5 shows the expected number of sample persons that would have the characteristic,  $r$ . The expected number of sample persons is 54 if  $r$  is 10 per cent, 108 if  $r$  is 20 per cent, 162 if  $r$  is 30 per cent, and 270 if  $r$  is 50 per cent.

Observe that the expected standard error varies considerably depending on the size of the subpopulation and the size of the indicator. An important reliability measure for evaluating your results is the confidence interval, the last column in Table 4.5. The confidence interval, or CI, shows the range around which your estimate can be expected to vary from the true value in the population, taking account of the standard error. It is computed by adding and subtracting twice the standard error (for 95 per cent level of confidence) to the indicator estimate. Looking at the very last row of Table 4.5, the confidence interval shown is  $|0.485 - 0.515|$  for an indicator estimated at 0.50. This means that if you estimate the indicator coverage to be 50 per cent, then you can be confident with 95 per cent assurance that the true value of the indicator in the population is between 48.5 per cent and 51.5 per cent.

#### DECIDING ON THE NUMBER OF PRIMARY SAMPLING UNITS AND CLUSTER SIZES – ILLUSTRATIONS

At the beginning of the section on sample size, we discussed how the number of PSUs and the size of the clusters play a role in sample size. We emphasized that sampling reliability is improved with more PSUs and smaller cluster sizes. We conclude the section with three examples using different scenarios to illustrate the interrelationship of sample size, number of PSUs and cluster size.

##### EXAMPLE 1:

Target group:	Children aged 12 to 23 months
Per cent of population:	2.6 per cent
Key indicator:	DPT immunization coverage
Prevalence (coverage):	40 per cent
<i>Deff</i> :	No information
Average household size:	6

Under this scenario, use Table 4.3 because the coverage rate of the key indicator and the household size can be found in the table. The target population, comprising 2.6 per cent, is also very close to the 3 per cent figure that Table 4.3 is based upon. With no information on the design effect, it is assumed to have a value of 1.5, and the non-response adjustment factor is assumed to be 1.1, corresponding to an expected 10 per cent non-response rate. The sample size for an average household size of 6.0 persons for a 40 per cent coverage rate is then found to be 4,583 households.

Suppose that your country is relatively large in geographic size and, further, that there are

a large number of provinces, say, 15. You and your sampling staff have concluded, therefore, that you need to have a minimum of 300 PSUs in order to achieve good geographic spread and sufficient representation in each province. Moreover, you have decided that the budget for the survey would support that number of PSUs. The cluster size would then be calculated as 4,583 divided by 300, or about 15-16 households.

Instead of targeting 300 PSUs as your number, you and the survey and sampling staff may have decided, alternatively, that you wanted clusters of a certain size, say, 10, in order to meet operational requirements such as interviewer workload distribution. In this case, you would divide 4,583 by 10 to give you the number of PSUs – about 458. You would then review this number in terms of cost and other considerations, and either accept it or adjust your cluster size. You might conclude that 425 is the maximum number of PSUs you can field because of travel costs, in which case you would have to adjust the cluster size to 11 (that is, 4,583/425).

**EXAMPLE 2:**

Target group:	Children aged 12 to 23 months
Per cent of population:	2.5 per cent
Key indicator:	Polio immunization coverage
Prevalence (coverage):	26 per cent
<i>Deff</i> :	No information
Average household size:	6

Under this scenario, you may still use Table 4.3 since, except for the coverage rate of the key indicator, all the parameters of the table pertain, given that we can again assume the design effect is 1.5 and non-response adjustment factor is 1.1. For coverage, *r*, we can use the column for 25 per cent since the estimated value of 26 per cent is so close. The sample size for an average household size of 6.0 persons is found in the table to be 9,167 households.

Because of cost considerations and field workloads, suppose the survey team decides it wants cluster sizes of 30 households, if possible. Here, dividing 9,167 by 30 gives 306 PSUs, and you may decide that this is an acceptable number for the fieldwork. If, on the other hand, you decided that you would like to have about 400 PSUs for geographic spread and also to have enough PSUs to enable subnational estimates to be made for five regions, you would divide 9,167 by 400, which gives you 23 as your cluster size. Recall that the smaller the cluster size the more reliable the indicator estimates will be (for all indicators, not just the key indicator). You may decide, therefore, to use the 400-PSU design with its average cluster size of 23 households, bearing in mind that it will be more expensive than 306 PSUs due to travel costs.

**EXAMPLE 3:**

Target group:	Children aged 0 to 11 months
Per cent of population:	3.5 per cent
Key indicator:	Adequately fed infants
Prevalence (coverage):	24 per cent
<i>Deff</i> :	1.4 (from a previous survey)
Average household size:	4
Expected non-response rate	10 per cent

Under this scenario, you would have to calculate the sample size by using the formula provided in this section, since several of the parameters differ from those used or



assumed in Table 4.3. They include the values for  $p$ ,  $f$  and the non-response adjustment factor, the latter of which is based on an expected non-response rate of 5 per cent instead of 10 per cent, judging from similar surveys in your country. The formula yields a figure of 10,303 households.

Suppose that the survey staff has concluded that the survey can handle a maximum of 300 PSUs because of cost considerations. In this case, you would set 300 as fixed and figure the cluster size by dividing 10,303 by 300, which gives 34 households as the cluster size. Here you would have to evaluate whether a cluster size that big will give sufficiently reliable estimates for indicators other than the key ones.<sup>9</sup> If we assume that the maximum cluster size should not be greater than 30 households, the number of PSUs that would be needed for 10,303 households is 343. Thus, the choice would have to be made whether to accept the lower reliability on a 300-PSU design or the higher cost of a 343-PSU design.

### DETERMINING WHAT SAMPLE TO USE

Once you have decided on the sample size and made initial determinations about the number of PSUs, the next task is to decide what sample to use for the survey. Designing, selecting and implementing a proper probability sample from beginning to end is a time-consuming and expensive process (probability sampling is discussed in the next section). For MICS3, there is the need to produce the indicator estimates in a comparatively short time frame, and you may not have sufficient time to design a new sample for the survey. Hence, there are two major steps to be followed in determining what sample to use for your survey:

**Step 1:** Determine if an existing sample can be used.

**Step 2:** If no suitable existing sample can be found, develop a sample specific to MICS3.

In this section we discuss step 1. If there is a suitable existing sample for MICS3, you need not review the optional sample designs presented for step 2, which is discussed in the next section. It is nevertheless useful to review the next section in order to assure yourself that the existing sample you plan to use is a proper probability sample with a reasonably current sampling frame.

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<sup>9</sup> While the design effect is very low for the key indicator of this example, and hence the reliability of that estimate would be expected to meet the precision requirements set, other indicators that have a much higher intra-cluster correlation than that for children under age one would be expected to have considerably higher sampling errors with a cluster size over 30 compared to, say, 20 or 25.

### USE OF AN EXISTING SAMPLE – OPTION 1

Fortunately, most countries have well-developed survey programmes through their national statistical offices or health ministries. It may be possible in your country, therefore, to use an already existing sample, one that has been designed for other purposes. *This is the recommended option for your survey if the existing sample is a valid probability sample and is available.* The existing sample must be evaluated to see if it meets the requirements of probability sampling (which is discussed in a subsequent section).

There are various ways in which an existing sample may be used:

- Attaching MICS3 questionnaire modules to the questionnaires to be used in another survey
- Using the sample, or a subset, from a previous survey
- Using the household listings in the sample enumeration areas (or clusters) of another survey
- Using the enumeration areas or clusters from a previous survey with a fresh listing of households.

Of these choices, there are advantages and limitations to each. Timing considerations are also a key factor. For example, the first choice is only an option if another survey is going to be carried out within the prescribed time frame for the MICS. This choice – attaching the questionnaire modules to another survey, sometimes called ‘piggy-backing’ because the data for both surveys are collected simultaneously – has obvious appeal *since the sampling will have already been done, thus saving the sampling costs for MICS3.* A major limitation, however, can be the burden it places on the respondent, since MICS3 questionnaires are quite long and the parent survey may have its own lengthy questionnaire. These aspects must be carefully evaluated and discussed with the host survey sponsors and management team.

The second choice, using the sample from a previous survey, also has the advantage that the sample design is already in place, again saving sampling costs. If the sample size for the previous survey was too large, it would be a simple matter for the sampling statistician to sub-sample the original sample to bring the size into compliance with MICS3 requirements. By contrast, however, if the sample size is too small, expanding it is more problematic. There is also the limitation of revisiting the same households from the previous survey, again because of potential problems this could pose in terms of respondent burden and/or conditioning. Finally, the previous survey must be very recent for this to be a viable choice.

The third choice, using the household listings in sample enumeration areas from a previous survey as a frame for selecting the MICS3 sample, has a dual advantage: (1) the first-stage units are already sampled and (2) household listings are already available. Therefore, again, most of the sampling operations and costs will already have been achieved. An advantage is that different households would be selected for MICS3, thus eliminating the problems of respondent burden, fatigue or

conditioning. A limitation is that the household listings would be out of date if the previous survey is more than a year or two old, in which case this choice would not be viable. In fact, when the household listings are out of date, then the fourth choice above can be considered. This choice requires making a fresh listing of households in the sample enumeration areas before sample selection. While this has the limitation of having to carry out a new household listing operation, with its associated expense, the advantage is that first-stage units would have already been selected and the sample plan itself is basically in place without further design work.

**Table 4.6**  
**Option 1 – Existing Sample**

**Pros**

- Saves time and cost
- Likely to be properly designed with probability methods
- Adjustments to fit MICS3 can be simple

**Cons**

- Requires updating if old
- Respondents may be overburdened
- Indicator questionnaire may be too long if 'piggy-backed'
- Adjustments to fit MICS3 can be complex

Each of these points should be carefully evaluated and a determination made about the feasibility of implementing the necessary modifications before you decide to use an existing sample.

An existing sample that may be an excellent candidate is the Demographic and Health Survey (DHS).<sup>10</sup> Many countries have conducted these surveys recently and others plan to in the coming months.<sup>11</sup> The measurement objectives of DHS are quite similar to the MICS. For that reason, the sample design that is used in DHS is likely to be perfectly appropriate for your use.

Under what circumstances is it appropriate to use the DHS sample? You must evaluate its availability, timeliness and suitability in terms of your requirements. *Either a recent but pre-2003 DHS sample could be used to field the MICS, or an upcoming DHS could be used with the MICS3 as a supplement.* The DHS will undoubtedly be designed as a probability sample. Therefore, you need only evaluate whether (1) its sample size is large enough for MICS and (2)

<sup>10</sup> Sampling matters are described in *Demographic and Health Surveys: Sampling Manual, Basic Documentation* – 8. Calverton, Maryland: Macro International Inc., 1987.

<sup>11</sup> It should be noted, however, that conducting MICS3 is not recommended if a DHS has been done since 2003, or will be done in 2005 or early 2006.

the number of PSUs and cluster sizes are within the ranges that are discussed in this manual. Finally, it would require agreement and cooperation with the DHS sponsoring or implementing agency in your country, noting the constraints mentioned above about overburdening respondents.

Another survey that many countries have implemented and whose sample may be appropriate for your use is a labour force survey. While the measurement objectives of labour force surveys are quite different from the objectives of MICS3, labour force surveys are frequently designed in a very similar fashion to Multiple Indicator Cluster Surveys in terms of stratification, sample size and other sampling criteria.

### **DEVELOPING A SAMPLE FRAME FOR A NEW SAMPLE**

When an existing sample cannot be used, it will be necessary to use and/or develop a sampling frame of households from which to select a new sample for MICS3. The frame should be constructed in accordance with the tenets of probability sampling.

#### **PROPER PROBABILITY SAMPLING DESIGN AND SAMPLING FRAME**

Design of an appropriate probability sample for the survey is just as important as development of the various questionnaire modules in terms of producing results that will be valid and, as far as possible, free from bias. There are a number of ways you can design a probability sample, and each country will undoubtedly have its own conditions and data needs that dictate the particular sample plan it adopts. There are certain features that should be observed by all countries, however, to meet the requirements of a scientific probability sample:

- Use accepted probability sampling methods at every stage of sample selection
- Select a nationally representative sample
- Ensure that the field implementation is faithful to the sample design
- Ensure that the sample size is sufficient to achieve reliability requirements.

In addition to these four requirements, there are other features of sample design that you are strongly recommended to adopt, although each may be modified in certain ways depending upon country situations and needs. They include:

- Simple, as opposed to complex, sampling procedures
- Use of the most recent population census as the sampling frame
- A self-weighting sample, if possible.

Scientifically grounded probability sampling methods for surveys have been practised in most countries of the world for decades. If a sample is not accurately drawn from the whole population of interest by using well-known probability techniques, the survey estimates will be biased. Moreover, the magnitude of these biases will be unknown. It is crucial to ensure that the sampling methodology employs probability selection techniques at every stage of the selection process.

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**To avoid sample bias, you should use *probability sampling* to select the respondents. Sample bias depends on the selection *techniques*, not the sample size. Increasing the sample size will not eliminate sample bias if the selection techniques are wrong.**

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Probability sampling is a means of ensuring that all individuals in the target population<sup>12</sup> have a known chance of being selected into the sample. Further, that chance must be non-zero and calculable. A sure sign of not having a probability sample is when the sampling statistician cannot calculate the selection probabilities of the sample plan being used.

Examples of sampling methods that are not based on probability techniques are judgement samples, purposive samples and quota samples. The random walk method of selecting children is a quota sample procedure. It is important that you not use such procedures for MICS3.

The best way to control sampling bias is to insist on strict probability sampling. There are other biases, non-sampling in origin, including non-response, erroneous response, and interviewer errors, but these will occur in varying degrees anyway, no matter what kind of sampling methods are used. Appropriate steps must be taken to control these non-sampling biases as well, including such measures as pre-testing, careful interviewer training and quality control of fieldwork.

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**In probability samples, every person in the target population has a chance of being selected, the selection chance is non-zero and is calculable mathematically, and probability techniques are used in every stage of selection.**

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A second required feature of sample design for MICS3 is that the sample should be national in scope and coverage. This is necessary because the indicator estimates must reflect the situation of the nation as a whole. It is important to include, to the extent practicable, difficult-to-enumerate groups to ensure complete national coverage. Such groups might be nomads, homeless or transient persons, or those living in refugee camps, military quarters, as well as settlements in isolated areas that are difficult to access. It is quite likely that children in particular, living in such situations, have different health conditions from those found in more

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<sup>12</sup> MICS3 has different target populations depending upon the indicator. Examples include children aged 0 to 11 months, 12 to 23 months, under 5 years, children under 5 years with diarrhoea, women aged 15 to 49 years, and the total population.

stable or traditional living environments, and excluding them would result in biased indicator estimates.

One of the crucial ways in which the sample can be truly national in scope and therefore consistent with proper probability sampling is by ensuring that the frame used covers the entire population of the country. The sampling frame is discussed in more detail below.

For probability sampling to be effective, it is essential that the field implementation of the sample selection plan, including the interviewing procedures, be faithful to the design. There have been numerous occasions where lax fieldwork has ruined an otherwise perfectly acceptable sample design. The field supervisors must make certain that the sample selection procedures are followed strictly.

A crucial feature of valid probability sampling is the specification of precision requirements in order to calculate the sample size. This topic was discussed in the previous section on determining sample size. We have recommended that the precision for the key indicator be set at a relative sampling error of 12 per cent at the 95 per cent level of confidence, and those are the criteria under which the calculation formula for sample size is based. If your key indicator is, for example, one with 20 per cent coverage or prevalence, then the 12 per cent relative error translates into a margin of error of 2.4 percentage points, and the confidence interval on your survey estimate of 20 per cent would be | 17.6 – 22.4 | .

Your sample should be designed as simply as possible. It is well known that the more complex the sample plan is, the more likely it is that its implementation will go wrong. This can be especially troublesome at the field level if complicated sampling procedures have to be carried out. Moreover, the operational objective to produce the survey results in a timely manner may not be met.

A sample plan is said to be *self-weighting* when every sample member of the target population is selected with the same overall probability. The overall probability is the product of the probabilities at each of the stages of selection. A self-weighting sample is desirable because various estimates can be prepared, for example, percentage distributions, from the sample figures without weighting, or inflating, them. In keeping with the desire for simplicity in sample design, it is better to have a self-weighting design than a more complicated, non-self-weighting one. Still, *self-weighting should not be considered a strict criterion*, because weighting the sample results to prepare the estimates can be easily handled by today's computers. Moreover, there are some situations where the sample design cannot be self-weighting.

**EXAMPLE:**

Suppose that in your country you will need separate urban and rural indicator estimates, and suppose further that you want the estimates to be equally reliable. This would necessitate selecting a sample of equal size in the urban and rural sectors. Unless the urban and rural populations are equal, the sampling rates in each would be different. Hence, the overall national sample would require weighting for correct results and, therefore, the survey sample would not be self-weighting.

**CENSUS SAMPLING FRAME AND WHEN UPDATING BECOMES NECESSARY**

It is strongly recommended that the most recent population census be used as the basis for the sample frame, updated if necessary. Nearly all countries of the world now have a recent population census, that is, one conducted within the last 10 years. The frame is essentially the set of materials from which the survey sample is selected. A perfect sampling frame is one that is complete, accurate and up to date, and while no frame is 100 per cent perfect, the population census comes closest in most countries. *The prime use of the census for our survey is to provide a complete list of enumeration areas with measures of size, such as population or household counts, for selection of the first-stage sampling units.* Maps are usually part of the census of population in most countries, and these might include sketch maps for the enumeration areas. The maps are a useful resource because the selected enumeration areas will likely have to be updated in terms of the *current* households residing therein, especially if the census is more than a year or two old.

Some countries conducted their year 2000 round of censuses as early as 1999, while many others conducted theirs during the period 2000-2002. This brings us to the very important issue of whether the census frame will need to be updated for MICS. *It is*

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**If the census frame in your country was prepared before 2003, updating is recommended.**

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*recommended, in general, that updating not be undertaken if the census frame was created in 2003 or later, with one exception.* In countries where there have been dramatic shifts in population since 2003, especially in highly urbanized areas that have expanded in specific zones due to massive new construction of residential units, an updating operation should be undertaken in such zones. You may decide, however, that this is not necessary if your population census is so recent that it precedes your survey by 12 months or less.

The reason for updating is probably apparent. It is necessary to ensure that coverage of the total population is as accurate and complete as possible. The recommended steps for updating the census frame are the same under either scenario, that is, whether in large-scale urban developments since 2003 or for general updating of an old census frame prepared prior to 2003. The difference is in the scope and scale of the updating operation. Updating an old, pre-2003, census frame is considerably more demanding and expensive than updating the more recent frames. In either case, however, the operation must take place for the entire sampling frame and

not just those enumeration areas – PSUs – that happen to be selected in the sample. In fact, the information gathered in updating is used to select the sample.

It is important to be aware that updating a frame is a major statistical operation. If updating becomes necessary, it cannot be ignored in your costing algorithm when you are preparing your budget. Moreover, you are strongly urged to engage the services of your national statistical office when updating is deemed necessary. The specific steps are as follows:

1. Identify the zones, especially in large cities, where there has been massive residential construction since the census was conducted, irrespective of whether your population census is pre- or post-2003.
2. Identify new zones, such as squatter communities that have become highly populated since the census. These may include zones that were ‘empty’ or very sparsely populated at the time of the census.
3. Ignore old, stable residential zones where little change occurs over time.
4. Match the zones identified in steps 1 and 2 with their census enumeration areas, taking into account overlapping boundaries.
5. In the affected enumeration areas, conduct a canvass of each one and make a quick count of dwelling units. Note that quick counting only entails making a rough count of dwellings without actually enumerating the occupants. The quick count should not entail knocking on doors at all, except in the case of multi-unit buildings where it is not obvious from the street how many flats or apartments there are.

Use the new quick count of dwellings<sup>13</sup> to replace the original count of households on the census frame. This is its new ‘measure of size’, a count necessary to establish the probabilities of selecting the sample enumeration areas.

It is obvious that updating the frame prior to sample selection is not a trivial operation, but rather time-consuming and costly. That is one reason why it is recommended to use an existing sample, whenever possible.

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<sup>13</sup> It is recognized that the number of dwelling units may not equal the number of households. However, it is only important to obtain a rough estimate in order to establish the measure of size. For example, if 120 dwellings were ‘quick counted’ in an enumeration area that was selected for the sample, and it was later found that 132 households occupied these dwellings, the validity and reliability of the sample results would not be seriously affected.



### USING A NEW SAMPLE FOR MICS AND DECIDING ON ITS DESIGN

When a suitable existing sample is not available for use in MICS3, either for a stand-alone survey or a supplement to another survey, a new sample will have to be designed and selected, starting with the preparation of the sampling frame (discussed above).

In this section, we outline the main properties that the design of the MICS3 sample should possess. Two options are presented below, preceded by a summary of general features.

In the most general terms, your survey sample should be a probability sample in all stages of selection, national in coverage, and designed in as simple a way as possible so that its field implementation can be easily and faithfully carried out with minimum opportunity for deviation from the design. In keeping with the aim of simplicity, both stratification and the number of stages of selection should be minimal. Regarding stratification: its prime purpose is to increase the precision of the survey estimates and to permit oversampling for subnational areas when those areas are of particular interest. A type of stratification that is simple to implement and highly efficient when national level estimates are the main focus is implicit stratification. This is a form of geographic stratification that, when used together with systematic *pps*<sup>14</sup> sampling (see illustrations near the end of this chapter), automatically distributes the sample proportionately into each of the nation's administrative subdivisions, as well as the urban and rural sectors. Implicit stratification is carried out by geographically ordering the sample frame in serpentine fashion, separately by urban and rural, before applying systematic *pps*.

Further, the design should be a three-stage sample. The first-stage, or primary sampling units, should be defined, if possible, as census enumeration areas, and they should be selected with *pps*. The enumeration area is recommended because the primary sampling unit should be an area around which fieldwork can be conveniently organized; it should be small enough for mapping, segmentation, or listing of households, but large enough to be easily identifiable in the field.

The second stage would be the selection of segments (clusters), and the third stage the selection of the particular households within each segment that are to be interviewed in the survey. These households could be selected in a variety of ways – through sub-sampling from an existing list of households in each segment or a newly created one.

There is, of course, room for flexibility in this design, depending on country conditions and needs. The design is likely to vary a good deal from one country to another with respect to the number of sample PSUs, the number of segments or clusters per PSU, and the number of households per segment, and, hence, the overall sample size.

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<sup>14</sup> This is probability proportionate to size (*pps*) and it refers to the technique of selecting sample areas proportional to their population sizes. Thus, an area containing 600 persons would be twice as likely to be selected as one containing 300 persons.

As a very general rule of thumb:

- The number of PSUs should be in the range of 250 to 350
- The cluster sizes (that is, the number of households to be interviewed in each segment) should be in the range of 10 to 30, depending upon which of two options described below is followed
- The overall sample size should be in the range of 2,500 to 14,000 households.

A country may decide, for its own purposes, that it wants indicator estimates for a few subregions in addition to the national level. In that case, its sample design would undoubtedly include a different stratification scheme and a greater number of PSUs, so as to ensure adequate geographic representation of the sample areas in each subregion. In addition, the sample size for the survey would have to be increased substantially in order to provide reliable estimates for subregions, or for other subnational domains (discussed in more detail later in this chapter).

## STANDARD SEGMENT DESIGN – OPTION 2

It was mentioned above that the Demographic and Health Surveys project might provide a suitable existing sample for use in MICS3 (recall that we referred to use of an existing sample as Option 1). The standard DHS sample design is, in fact, a good model for MICS3, if you decide that a new sample has to be designed. The DHS sample model has also been used in other health-related survey programmes such as the PAPCHILD surveys in the Arab countries.<sup>15</sup>

The DHS and PAPCHILD sample models are based on the so-called *standard segment design*, which has the benefits of probability methodology, simplicity and close relevance to the MICS3 objectives, both substantive and statistical. The sampling manuals for DHS and PAPCHILD note that most countries have convenient area sampling frames in the form of enumeration areas of the most recent population census. Sketch maps are normally available for the enumeration areas, as are counts of population and/or households. The census enumeration areas are usually fairly uniform in size. In many countries, there are no satisfactory lists of living quarters or households, nor is there an adequate address system, especially in many rural areas. Consequently, it is necessary to prepare new listings of households to bring the frame up to date.

To apply the standard segment design to the MICS3, first arrange the census frame of enumeration areas in geographic sequence to achieve implicit stratification. Some enumeration areas are so large that it is not economically feasible to carry out a new listing of all households if they are selected. Instead, it is more efficient to use segments. This is done by assigning each enumeration area a measure of size equal to the desired number of 'standard segments' it contains. In the DHS and PAPCHILD sampling manuals, it is recommended that the number of standard segments be defined (and computed) by dividing the census population of the

<sup>15</sup> See *The Arab Maternal and Child Health Survey, Basic Documentation 5: Sampling Manual*. Cairo: League of Arab States, 1990.

enumeration area by 500 and rounding to the nearest whole number. Note that in cases where you are updating your census frame, the *count of dwellings (multiplied by 5)* you obtained in the last step of the updating operation (described in the preceding section on frames) should be used instead of the census population figure. The multiplication factor of 5 is necessary to approximate the current population count in the updated enumeration areas so that its measure of size is defined the same as those enumeration areas that are not updated. *This size for the standard segment is recommended for MICS3, if you decide to use Option 2.*

The next step is to select sample enumeration areas using probability proportionate to this measure of size. Note that the measure of size is also the number of segments. In many cases, you may find that the average size of an enumeration area is about 500 persons (equivalent to 100 households when the average household size is five); therefore, the typical measure of size will be one.

Segmentation, using the available maps, is the next phase of operation. *When the number of segments in a sample enumeration area is equal to one, no segmentation is necessary*, because the segment and the enumeration area are one and the same. If the number of segments is greater than one, then segmentation will be necessary. This entails subdividing the sampled enumeration area into parts (equal to the number of segments), with each part containing roughly the same number of households. Segmentation may be done as an office operation if the maps are accurate enough. Otherwise, a field visit would be necessary, especially in cases where identifiable internal boundaries within the enumeration area are not clearly delineated (see Chapter 6 for details on mapping and segmentation).

**Table 4.7**  
**Option 2 – Summary of Standard Segment Design**

**Features**

- Three-stage sampling with implicit stratification
- Selection of enumeration areas by *pps*
- Mapping and segmentation in enumeration areas with more than one standard segment
- Selection of one segment at random in each enumeration area
- Listing of households in sample segments
- Systematic selection of sample households in segments

**Parameters**

- Usually 250 to 400 sample enumeration areas (PSUs)
- Standard segments of 500 population (about 100 households)
- Non-compact cluster of size of 10 to 35 households (differs from Option 3 below)
- Sample size of usually 4,000 to 14,000 households\*

*\*Note that, in general, we would not recommend the minimum number of PSUs times the minimum cluster size (250 times 10), since 2,500 is most likely too small a sample size to measure the important indicators reliably in most countries.*

After segmentation, one segment is selected at random in each sample enumeration area. In all selected segments, *a new household listing is undertaken*. Again, this will typically be about 100 households. Then, from the listings, using a fixed fraction, choose a systematic sample of households in each sample segment for interview.

**Table 4.8**  
**Option 2 – Standard Segment Design**

**Pros**

- Probability sample
- Minimal mapping and segmentation
- Amount of listing is minimal
- Somewhat more reliable than Option 3 (below)
- Partially corrects for old sampling frame
- Self-weighting design

**Cons**

- Listing, though minimal, is necessary in every sample segment
- May give widely variable segment sizes, especially if frame is old and not updated

**EXAMPLE:**

It might be decided to select one fifth of the newly listed households in each sample segment. Thus, if there are, say, 300 segments, then the number of households selected in each segment would be approximately 20 (though it would vary by PSU) and the overall sample size would be approximately 6,000 households.

The standard segment design is convenient and practical. In a typical country, that is, one where the enumeration area averages about 100 households, very little actual segmentation would have to be done. Moreover, the amount of household listing is also limited.

The sample households under Option 2 are contained within non-compact clusters,<sup>16</sup> and the sample is self-weighting. The number of households selected in each sample PSU will vary somewhat because the PSUs are selected based on their census sizes (except for those that have been updated), which will likely be different from the actual sizes when the new household listing is made.

**EXAMPLE:**

Suppose the within-segment selection rate is calculated to be 1 in 5 of the listed households. If a segment is selected on the expectation of 98 households based on the census, but the listing shows there are now 112 households, then a one-fifth sample of the households will yield 22 or 23 households (the correct number), instead of the expected 19 or 20. The procedure not only reflects population change correctly, but it also retains the self-weighting nature of the sample. The deviation in the average segment size should not be great, unless an old census frame that has not been updated is used.<sup>17</sup>

**MODIFIED SEGMENT DESIGN – OPTION 3**

We have discussed the use of an existing sample as the preferred option for MICS3, whenever a well-designed existing sample is available and relevant. We have also discussed using the DHS and PAPCHILD model sample plan, the standard segment design, as the next best option whenever your country has to design the indicator survey sample from scratch.

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<sup>16</sup> A non-compact cluster is one in which the households selected for the sample are spread systematically throughout the entire sample area. A compact cluster is one in which each sample household in a given segment is contiguous to its next-door neighbour. Non-compact clusters give more reliable results than compact clusters, because of their smaller design effects.

<sup>17</sup> There is an alternative procedure when the population is thought to have changed significantly, so that the average segment size might be too variable for efficient field assignments. The segment size may be fixed rather than the fraction of households to select, in which case a different sampling interval would have to be calculated and applied in each sample segment. Each segment would then have a different weight and this would have to be accounted for in the preparation of the indicator estimates.

Option 3 uses a modification of the standard segment design. The *modified segment design* is similar to the standard segment design, but there are important differences.<sup>18</sup> Rather than creating standard segments of size-500 populations in each sample enumeration area, the latter is subdivided into a predetermined number of segments. This predetermined number is equal to the number of census households (or the updated dwelling count) in the enumeration area divided by the desired cluster size and rounded to the nearest whole number. Note here we are using households (or dwellings for updated frame areas) rather than population, which was used for Option 2. Hence it is not necessary to multiply the dwelling count in updated areas by 5.

**EXAMPLE:**

If the desired cluster size is 20 households, and there are 155 households in the enumeration area, then 8 segments would be created.

As with Option 2, enumeration areas are sampled with probability proportionate to the number of segments they contain. Each selected enumeration area is then segmented into the predetermined number of segments using sketch maps together with a quick count of current dwellings. Carefully delineated boundaries must be formulated in the segmentation, and the number of dwellings in each segment should be roughly equal, although it need not be exact. Note that the quick count can, again, be based on dwellings rather than households, just as is done for frame updating (refer to that section for details).

After segmentation, one (and only one) segment is selected at random within each sample enumeration area. *All the households contained within the boundaries of the sample segment are then interviewed for the survey*, the segment thus forming a compact cluster of households.

The other features of the modified segment design are essentially the same as the standard segment design – three-stage sampling, implicit stratification, *pps* selection of enumeration areas.

The modified segment methodology has an advantage over the standard segment design in that no household listings need be undertaken, thus eliminating a major survey expense. The quick-count operation and sketch mapping do, however, bear an additional expense, but the cost of the quick count is minimized since it can be done by visual inspection rather than actually knocking on doors to speak to respondents. In addition, the procedure compensates somewhat for using a sampling frame that may be outdated by interviewing all the current households in a sample segment, no matter how many there were at the time of the census.

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<sup>18</sup> See a complete description of the modified segment (or cluster) design in: Turner, A., R. Magnani, and M. Shuaib. 1996. 'A Not Quite as Quick but Much Cleaner Alternative to the Expanded Programme on Immunization (EPI) Cluster Survey Design'. *International Journal of Epidemiology* 25(1).

**Table 4.9**  
**Option 3 – Summary of Modified Segment Design**

**Features**

- Three-stage sampling with implicit stratification
- Predetermination of number of segments by PSU
- Selection of census enumeration areas by *pps*
- Mapping and segmentation in all sample enumeration areas
- Selection of one segment at random in each enumeration area
- Interview of all sample households in selected segment

**Parameters**

- Usually, 250 to 400 sample enumeration areas (PSUs)
- Compact cluster of 20 to 30 households (minimum size 20)
- Usual sample size of 5,000 to 12,000 households\*
- *Segment size* and *cluster size* are synonymous (unlike Option 2)

*\*Note that the range of sample sizes is different from those for Option 2 in Table 4.7 because the recommended compact cluster sizes are different.*

A limitation of the modified segment design is that the segments (the clusters) are compact. Therefore, with the same sample size, the sampling reliability for this design will be somewhat less than the standard segment design, where the clusters are non-compact. This could be compensated, however, by sampling more enumeration areas with a smaller sample ‘take’ within the enumeration areas. Another limitation is that the segmentation itself requires comparatively small segments to be delineated, which may not be practical in some countries. It can be very problematic in small areas where there are not enough natural boundaries such as roads, lanes, streams, etc. for the segmentation to be accurate or even adequate. *For this reason, it is recommended that the segment size under this option be at least 20 households; and to compensate for the decrease in reliability with the compact segment, it should not be greater than 30 households.* Boundary delineation is extremely important when forming segments, in terms of controlling sampling bias.

**SHORTCUT DESIGNS – NOT RECOMMENDED**

In the first round of MICS, in 1995, considerable attention was devoted to a method called ‘random walk’, which is used in the Expanded Programme of Immunization. The chief objection to using this method for MICS3 is that household selection is not based on probability sampling methods, but rather on a procedure that effectively gives a quota sample.

Since MICS3 has large sample sizes, the random walk method is inappropriate. It is sometimes argued that the small-scale, Expanded Programme of Immunization surveys, with their correspondingly small sample sizes, are dominated more by

sampling variance than by bias, thus justifying somewhat the use of the random walk method.

For MICS3, however, that same argument leads to the reverse conclusion – that bias is of greater concern than sampling variance, due to the much greater sample sizes, and so stricter probability methodologies should be used at each stage of selection.

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**Shortcut procedures – such as random walk – which depart from probability designs are not recommended for MICS3 and should not be used.**

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**Table 4.10**  
**Summary Checklist for Sample Size and Design**

- Determine target group that is a small percentage of total population
- Determine coverage rate for same target group
- Choose sample size from Table 4.3 if your country situation fits the table assumptions and conditions; OR ELSE, calculate sample size with the formula provided in this chapter
- Decide on cluster size, usually in a range of 10 to 35 households
- Divide sample size by cluster size to get the number of PSUs (sample areas)
- Review your choices of n, cluster size, and number of PSUs, IN ORDER TO choose among Options 1, 2 or 3 for sample design

## **SPECIAL TOPICS FOR THE MICS3 SAMPLE**

In this section we discuss a few other important topics that should be taken into account in planning the sampling aspects of MICS3 in your country. Those topics include subnational estimates, estimating change and analytical subgroups, and water and sanitation estimates.

### **SUBNATIONAL ESTIMATES**

Thus far we have been concerned with sample sizes necessary to generate national estimates of indicators. Many countries, however, will also want to use MICS3 to provide subnational figures – for example, at urban-rural, regional, state, provincial, or possibly district levels. Such data would be used for identifying areas where greater efforts are needed, as well as for programming and evaluation purposes.

A crucial limiting factor in providing reliable subnational estimates is sample size. For each reporting *domain* (that is, subnational area such as a region or urban-rural areas), the overall



sample size must be increased substantially for the results to be acceptably reliable. If *equally* reliable results are wanted for each domain, it is common practice to increase the *national* sample size,  $n$ , by a factor close to the number of domains, thus selecting  $n$  cases *in each domain*. So, if equally reliable data are wanted for five regions of the country, the sample size that is calculated for the national estimates on the basis of Table 4.3 or directly from the sample size formula would have to be *multiplied by a factor of about 5* in order to obtain the regional estimates. This, of course, increases the overall sample size (and cost) substantially and may be impractical for many countries.<sup>19</sup>

Compromises have to be considered, especially if the number of domains is large. Various alternatives are also a possibility, one of which is to restrict the separate reporting domains, such as provinces, for example, to only those that exceed a certain population size. The remaining sub-areas could be combined into regional groupings. Another alternative is to allow the precision levels for the domain estimates to be less strict than that for the national estimate. For example, the margin of error for the key indicator for the national estimate is set at 12 per cent of  $r$  (see section on sample size), but the separate reporting domains might have their margins of error relaxed considerably – even as high as 25 to 30 per cent of  $r$ . Further, these two alternatives could be used in combination.

#### ESTIMATING CHANGES AND SUBGROUP ANALYSES

Some of the international goals are expressed as expected reductions, such as decreasing the prevalence of malnutrition by 20 per cent in a 5-year period. You may also have a MICS or DHS survey from some years ago that provided estimates of indicators covered in MICS3, and you may want to make an assessment of changes that have taken place since then. This type of assessment would require two surveys at the beginning and end of the period. The size of the sample necessary to measure the change between two time periods is highly dependent on the magnitude of the change, as well as the magnitude of the two estimates at each point. It is a somewhat complicated matter and impractical to provide short, general guidelines for estimating change over time. It is recommended that you seek the help of the national statistics office or specialized sampling assistance if your plans include change measurement.

Regarding subgroup analyses, such as indicators by gender or socio-economic group, the indicator estimates will be less precise than those for the whole sample.

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<sup>19</sup> Vijay Verma suggests, instead, increasing the national-level sample size by the factor  $D^{.65}$ , where  $D$  is the number of domains. The reliability of each domain's estimate is somewhat less than the national estimate under this approach. See 'A Critical Review of MICS Sampling Methodology', a report by Vijay Verma to UNICEF, April 1995.

The example below shows how the margins of error increase for ever-smaller subgroups.

**EXAMPLE:**

Based on the full (national) sample, if the calculated precision is, for example, plus or minus five percentage points for a 50-per cent coverage rate, the margin of error would be, approximately plus or minus

- 6.3 percentage points for gender-specific indicators, assuming 50 per cent boys and 50 per cent girls in the sample
- 8.6 percentage points for a subgroup comprising 20 per cent of the overall sample.<sup>20</sup>

Thus, reasonably precise results can be obtained for gender-specific indicators as well as for other subgroups making up one fifth or more of the whole sample.

### **WATER AND SANITATION INDICATORS**

Gathering data on water and sanitation is an important component of MICS3. There are statistical issues when using or evaluating the data, however, which ought to be kept in mind.

As we have stated before, the sample design for MICS is based on collecting personal variables as opposed to household variables. Access to water and sanitation are household characteristics, in the sense that the entire household has the same type of access. Moreover, in an area cluster it is often the case that all households in the cluster have the same type of access. For these reasons, the sample design effect, *deff*, which we have previously discussed, is considerably higher for water and sanitation access indicators than the value of 1.5 that we have assumed for the sample size calculations. As a result, the sampling errors on the water and sanitation indicators will be much larger than those based on individuals.

We should point out that if the main purpose of MICS3 were to gather data on types of water and sanitation access, the sample design would be much different. It is likely that the sample plan would entail, more simply, a community survey in which a single informant in the sample communities (area clusters) would be asked about water and sanitation, as opposed to the MICS3 approach where those questions are posed to every household in the sample.

Despite the expected large sampling errors for water and sanitation indicators in MICS3, the results should be useful nevertheless, especially in determining *trends*. This is because data have been collected on these indicators in other household surveys, such as DHS, whose designs are similar to MICS3. Comparison of the MICS3 results with those of other surveys should be highly useful in determining trends because the sample design effects, while high in both surveys, tend to cancel out when estimating change.

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<sup>20</sup> See the unpublished note to UNICEF by Graham Kalton, 'Some Proposed Modifications for the WHO Simplified Cluster Sampling Method for Estimating Immunization Coverage', p. 10, September 1988.

## PREPARING ESTIMATES AND SAMPLING ERRORS

In this section we discuss the weighting alternatives for preparing the estimates, plus the need to calculate sampling errors.

Two types of weighting, if appropriate, may be applied in sequence in producing the estimates of the indicators. Unless the sample households have been selected with uniform overall probabilities (that is, a self-weighting design), all sample data should be weighted using the inverse of the overall selection probabilities – the so-called *design* weights. The design weights should be adjusted to account for non-response, however, even if the sample is self-weighting. This might be done in a variety of ways, including weighting up the respondents in each PSU (or cluster) to represent the non-respondents in that PSU. The main advantage of this approach is that it does not require external data. These two steps, applying design weights and non-response adjustments, may be all the weighting that is necessary for your survey.

Further weighting may be undertaken by adjusting the design weights to make the weighted sample distribution for some key variables, such as urban-rural or region, conform to an external population distribution, such as the most recent population census. This type of post-stratification weighting should be considered when there have been significant departures from the design at the implementation stage, when approximate procedures have been used because of deficiencies in the sampling frame, or when the sample departs from strict probability criteria.

The actual formulas and calculations of the design weights, non-response adjustment factors and, if necessary, post-stratification adjustments are highly dependent on the sample design used – the number of sampling stages, self-weighting versus non-self-weighting plans, whether non-response is uniform or widely variable across population subgroups or areas, availability of external data for post-stratification, etc. Therefore, it is not practical to present detailed steps on how to calculate the weights for your MICS3 (an example of the calculation of weights for a specific MICS, however, can be found in the country example for Lebanon in the last section of this chapter). The sampling statistician who designs your sample should be fully capable and responsible for designing the weighting scheme, as well as preparing full documentation of it.

## CALCULATING SAMPLING ERRORS

As has been emphasized throughout this chapter, the sample size in your survey is based on a key indicator for which we have pre-specified the expected precision level. However, the survey will produce hundreds of estimates, each of which will have its own precision (sampling error) and these will vary by whether they are national or subnational, as well as by the size of the  $p$ ,  $r$  and  $deff$  associated with each (see sample size formula). As noted above, for example, the water and sanitation estimates are expected to have much higher sampling errors than other indicators. This is why it is important to calculate sampling errors for some (not all) of the indicators.

As part of the routine preparation of the survey results, therefore, it is recommended that

sampling errors and associated variables, such as *deffs*, be estimated for the main indicators – perhaps 30 to 50 different estimates. This is essential in order to evaluate the reliability of the indicator estimates. To that end, *the confidence intervals incorporating the margin of error around the survey estimates cannot be constructed unless the sampling errors are estimated. Otherwise, interpretation of the estimates will be severely hampered.*

Calculation of sampling errors, or *standard errors*, can be a fairly complicated part of the survey operation. Standard errors should be calculated in a way that takes account of the complex sample design (clustering, stratification and weighting). The inappropriate application of simple random sampling formulas will, as a rule, seriously underestimate the standard errors.

Since there will undoubtedly be a variety of sample designs used in participating countries, including some based on existing samples, it is not possible to provide one scheme for estimating the sampling errors in MICS3. There is one technique, however, known as the *ultimate cluster method*, which may fit most of the sample designs used in MICS3. A simple Excel spreadsheet and an SPSS syntax file have been prepared for this purpose, together with instructions on the method, all of which can be found on the MICS3 website, [www.childinfo.org](http://www.childinfo.org). In general, the ultimate cluster method is appropriate if your sample is self-weighting or approximately self-weighting.

If the spreadsheet cannot be used, there are several software packages that have been developed and can be adapted for variance estimation. They include the CLUSTERS computer program, originally developed for the World Fertility Survey and available from the University of Essex; CENVAR, a software product available from the U.S. Bureau of the Census without charge; and WesVar, a program produced by WESTAT for use with SPSS. Packages such as SAS, SUDAAN and Epi-Info can also deal with complex designs. Recent versions of SPSS are also capable of calculating sampling errors for complex designs. Some of the packages are free and can even be downloaded from the Internet, while others are commercially sold.<sup>21</sup>

In either case, whether you use the spreadsheet or a computer software package, the process will be facilitated if you ensure that the data records contain PSU identifiers. If strata are used, the strata need to be identified for all PSUs.

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<sup>21</sup> For a comprehensive review of these programs, see ‘Sampling Error Software for Personal Computers’, by Jim Lepkowski and Judy Bowles of the University of Michigan. The article appears in *The Survey Statistician*, No. 35, December 1996, pp. 10–17 (see website: [www.fas.harvard.edu/~stats/survey-soft/iass.html](http://www.fas.harvard.edu/~stats/survey-soft/iass.html)). A more recent review can be found in a UN Statistics Division publication, ‘Household Sample Surveys in Developing and Transition Countries’, March 2005, particularly Chapter 21, on ‘Sampling Error Estimation for Survey Data’ by Donna Brogan ([http://unstats.un.org/unsd/HHSurveys/pdf/Household\\_surveys.pdf](http://unstats.un.org/unsd/HHSurveys/pdf/Household_surveys.pdf)).

## DETAILS OF SAMPLE SELECTION TECHNIQUES

In this section we provide detailed illustrations of how to apply the sample selection techniques that have been discussed in this chapter.

### PROCEDURES FOR SAMPLING WITH PPS – OPTION 2

The first technique to be illustrated is how to select the first-stage units using *pps*. The illustration also shows you how to combine systematic *pps* sampling with geographic arrangement of the sampling frame to achieve *implicit* stratification.

For the purposes of the illustration, we will use Option 2 from the chapter, the standard segment design, and select a national sample. Suppose (1) the standard segment size under Option 2 is to be 500 persons, or about 100 households; (2) census enumeration areas (EAs) are to be the sample frame; and (3) the number of PSUs to be selected is 300. The steps of the first-stage selection, which follow, should be done as a computer operation, although it is possible to do them manually.

- Step 1:** Sort the file of enumeration areas by urban and rural.
- Step 2:** Within the urban category, further sort the file in geographic serpentine order according to the administrative subdivisions of your country (for example, province or state, district, commune, etc.).
- Step 3:** Repeat step 2 for the rural category.
- Step 4:** In one column, show the census population count of the EAs.
- Step 5:** In the next column, compute the number of standard segments, which is equal to the population count divided by 500 and rounded to the nearest integer. This is the measure of size for the EA.
- Step 6:** Cumulate the measures of size in the next column.
- Step 7:** Compute the sampling interval,  $I$ , by dividing the total cumulant by 300, to one decimal place. In this illustration suppose the total cumulant is 5,281. Then the sampling interval,  $I$ , would be equal to  $5,281/300$ , or 17.6.
- Step 8:** Select a random start between 0 and 17.6. The way to do this, in practice, is to use a table of random numbers and select a three-digit number between 001 and 176 and insert the decimal afterward. Suppose you select 042; then your random start is 4.2. Then your first sample PSU would be the one for which the cumulant measure of size is the smallest value equal to or greater than 4.2.<sup>22</sup>
- Step 9:** Add 4.2 to  $I$ , or  $4.2 + 17.6 = 21.8$ ; then your next sample PSU would be the one whose cumulant corresponds to the smallest value equal to or greater than 21.8.
- Step 10:** Add 21.8 to  $I$ , or  $21.8 + 17.6 = 39.4$ ; the next sample PSU is the one with the cumulant corresponding to the smallest value equal to or greater than 39.4.

<sup>22</sup> Kish recommends rounding down when the sampling interval is fractional. See Kish, L. 1965. *Survey Sampling*, p. 116. New York: Wiley.

**Step 11:** Continue as above, through the urban EAs followed by the rural ones, until all 300 PSUs have been selected.

This procedure is further demonstrated in Table 4.11.

The two sample PSUs that are depicted in the illustration are those in EA 003 of commune 01 and EA 002 of commune 03, both in district 01 and province 01. In the case of the first EA, its measure of size is 3. This would mean that three segments would have to be created, each of which is roughly 540 persons (1,630 divided by 3), with one of the segments selected at random for listing and sub-sampling of households. In the second sample EA, two segments would be created, each containing about 590 persons, before selecting one of them at random.

The illustration demonstrates the many advantages of implicit stratification: First, it is very easy to achieve, merely requiring that the frame of enumeration areas be sorted geographically before selecting the sample systematically with *pps*. Second, it automatically provides a sample of PSUs that is proportionately distributed by urban and rural areas and by province (or other geographic subdivisions). For example, if 10 per cent of your population is located in province 12, then 10 per cent of your sample will also be selected in that province. Third, it can be easily implemented on the computer.

**Table 4.11**  
**Illustration of Systematic *pps* Sampling and Implicit Stratification – Sample Option 2**

Urban	Population	Measure of size (segments of 500 population)	Cumulative
Province 01			
District 01			
Commune 01			
EA 001	1,470	3	3
EA 002	562	1	4
EA 003	1,630	3	7 selected
EA 004	1,006	2	9
Commune 02			
EA 001	412	1	10
EA 002	1,537	3	13
EA 003	1,312	3	16
EA 004	397	1	17
Commune 03			
EA 001	1,540	3	20
EA 002	1,181	2	22 selected
EA 003	1,025	2	24
District 02			
Commune 01			
EA 001	567	1	25
EA 002	1,111	2	27
EA 003	409	1	28
*			
*			
etc.			
Rural			
Province 12			
District 05			
Commune 05			
EA 001	512	1	5,280
EA 002	493	1	5,281

Once the PSUs have been selected, under Option 2, segmentation will have to be carried out in those PSUs where the measure of size (number of segments) is two or more, followed by one segment being selected at random in each PSU. Then, a new household listing will have to be made in the selected segments plus the one-segment PSUs. The final step in the selection procedure for Option 2 is to select the sample households within the selected segments. This procedure is described in Table 4.12 with an illustration.

**Table 4.12**  
**Selecting the Households – Option 2**

Suppose your standard segment size is 500 persons. Let your desired cluster size for the survey be designated as  $\bar{n}$  households.

1. Calculate the average number of households per segment by dividing 500 by the average household size in your country. Let this be  $s_h$ .
2. Divide  $s_h$  by  $\bar{n}$ . This is your sampling interval,  $I$ , for selecting households within each sample segment.  
(Note: If your standard segment size is other than 500, that value must be used.)

*Illustration:*

Suppose your average household size is 5.5. Then  $s_h$  is  $500/5.5$ , or 90.9. Suppose you want your cluster size,  $\bar{n}$ , to be 25. Divide 90.9 by 25 (1 decimal place) =  $90.9/25$ , or 3.6. Then, select households in each segment at the rate of 1 in 3.6, starting with a random number between 01 and 36 (inserting the decimal after selecting the number).

### PROCEDURES FOR SAMPLING WITH PPS – OPTION 3

If Option 3, the modified segment design described in this chapter, is used instead of Option 2, implicit stratification is done in the same way, *although the measure of size is different*. Under Option 3, if we suppose, as an example, that our segment size is going to be 20 households (on average), then the measure of size would be calculated by dividing the census count of households by 20, rounded to the nearest whole number. Note that under Option 3 the second column in Table 4.13 must be the number of households rather than population. You would calculate the sampling interval,  $I$ , by dividing the total cumulant – suppose it is 26,425 – by the desired number of PSUs, again, assume it to be 300. So, you would have  $26,425/300 = 88.1$ . If the random start is chosen to be 19.4, the first two PSUs selected, as illustrated in Table 4.13, would be those corresponding to the smallest cumulants exceeding the values, 19.4 and 107.5 ( $88.1 + 19.4$ ), respectively. They are EA 002 in commune 01 and EA 002 in commune 03 of province 01, district 01.



**Table 4.13**  
**Illustration of Systematic *pps* Sampling and Implicit Stratification – Sample Option 3**

Urban	Population	Measure of size (segments of 500 population)	Cumulative
Province 01			
District 01			
Commune 01			
EA 001	290	14	14
EA 002	120	6	20 selected
EA 003	325	16	36
EA 004	200	10	46
Commune 02			
EA 001	81	4	50
EA 002	307	15	65
EA 003	261	13	78
EA 004	80	4	82
Commune 03			
EA 001	308	15	97
EA 002	236	12	109 selected
EA 003	205	10	119
*			
*			
*			
etc.			
Rural			
Province 12			
District 05			
Commune 05			
EA 001	102	5	26,400
EA 002	99	5	26,405

Recall that, under Option 3, the measure of size is equivalent to the number of segments of pre-designated size that must be created (20 in our illustration). So, for the sample PSUs chosen, 6 segments of an approximate size of 20 households each must be formed in the first PSU and 12 in the second. Again, one of the segments would then be selected at random within each sample PSU, *and all of the households within that segment would be interviewed for the survey*, even if the actual number of households in the segment departs significantly from its expected size.

Chapter 6 details the procedures for creating segments both for Option 2 and Option 3.

## COUNTRY EXAMPLES FROM THE YEAR 2000 ROUND OF MICS

In the final section of this chapter we describe the sample designs that were used in three countries that participated in the year 2000 round of MICS. Each one illustrates a different aspect of the sampling points that have been discussed in this chapter. The examples are from Lebanon, Papua New Guinea and Angola.

### LEBANON

We begin with Lebanon and provide a fairly detailed description in order to compare the sample design with the year 2000 MICS manual. In addition, we show how the weights were calculated to illustrate how this is done in a specific survey.

#### *Sample Plan*

MICS was conducted by the Central Administration of Statistics. The principal measurement objectives of MICS were (1) to obtain the relevant, end-of-decade World Summit for Children indicators to profile the situation of women and children in Lebanon and (2) to provide these estimates at the national level and for five subnational areas (domains), which include the four largest muhafazas (governorates) plus the combination of Sud and Nabatieh. The sampling methodology for MICS in Lebanon was to select a probability sample of 1,625 households in each of the five domains using a stratified, clustered design. It was a two-stage selection process using the 1995-1996 Census of Buildings as the sampling frame. Altogether, 8,125 households were to be selected nationwide.

The first-stage clusters (that is, the primary sampling units – PSUs) were defined as ilots, and these were identical in concept and construction as census enumeration areas. They were selected with probability proportionate to their measures of size (or *pps*), the latter of which are the 1995-1996 counts of occupied dwellings from the Census of Buildings. A total of 65 ilots were selected in each domain, or 325 altogether. Ilots selected at the first stage were to be listed anew, that is, a fresh listing of households prepared in a field operation. Ilots that are very large were divided into geographical segments with one segment selected at random for listing. The new listing constituted the sampling frame for the second stage of selection.

A fixed sample size of 25 households from the new listings was selected systematically in each sample ilot for the MICS interview. In a few of the sample ilots, that is, those that contained fewer than 25 households, all the households were surveyed for MICS.

It was thought that non-response in the survey could be as high as 10 or 12 per cent, in which case the number of interviewed households would range from about 1,430 to 1,465 in each domain, or 7,150-7,325 nationwide.

### ***Discussion of Sample Plan – MICS Philosophy***

It is significant to note that the sample plan described above is consistent with the overall MICS philosophy for sample design and implementation, according to the previous edition of the MICS manual. That edition, like the current one, promotes several features for sample design, all of which are faithfully followed in the plan undertaken by Lebanon's Central Administration of Statistics. They include the following:

- Use of simple sampling methodology
- Use of the latest census as the sample frame
- Sampling in two stages
- Use of probability techniques at every stage of selection
- Use of clusters of moderate size
- Use of an adequate sample size.

The sampling methodology is simple and straightforward, as opposed to complex; for this reason, it was expected that non-sampling error would be kept to a minimum. The Census of Buildings in 1995-1996 was the appropriate frame to use because (1) it was the latest available and (2) maps were available, so that those ilots selected for MICS could be easily located and their internal boundaries identified. This cartographic aspect is also extremely convenient for the segmentation operation that was required for large ilots. The age of the frame meant that natural population movement and change could decrease the accuracy of the estimates, and for this reason, a new listing of households at the second stage was necessary to bring the frame up to date in the selected areas.

Strict probability selection methods were used at both stages. This helped ensure that the results would be representative of the various target populations, including households, women of childbearing age and children in Lebanon. The cluster size of 25 households is moderate, which ensured that the sample design effect was not so large as to make the results unreliable for the important indicators.

The national sample size of 8,125 households was consistent with the recommendations in the 2000 edition of the MICS manual regarding this highly important survey parameter. As that manual pointed out, the sample size must be large enough to accomplish various measurement objectives. These include being able to measure key target indicators with a margin of error of 3-5 percentage points, depending upon the indicator. A second important objective was to be able to obtain reasonably reliable estimates of the indicators for the domains of interest (as mentioned in the summary, these included the four large governorates of Beyrouth, Mont Liban, Beqaa and Nord plus the combination, Sud/Nabatieh, as well as the national level).

Like this edition of the MICS manual, the 2000 manual suggested that the calculated sample size may need to be adjusted upward to account for loss of cases due to non-response. This feature was taken into account.

### *Sample Size*

The indicator chosen for establishing the sample size in Lebanon was the proportion of children under age five with diarrhoea in the past 2 weeks. This was expected to be about 15 per cent, for which the margin of error, or precision, was set at plus or minus 3 per cent. Thus the confidence interval, at the 95 per cent level of confidence, would yield a survey value in the range of 12 to 18 per cent if the true value in the population is 15 per cent.

The target population for the diarrhoea indicator is children under five, and they constituted just under 10 per cent of the population. Sample design effect was presumed to be about 1.5. This was the factor by which the sample size was increased in order to counterbalance the fact that a cluster design was used instead of a simple random sample with regard to its effect on sampling reliability.

The number of domains was five, as discussed previously. The expected rate of non-response was taken to be 12.5 per cent. That is a conservative number, intended to yield a larger sample than necessary. It was hoped that actual survey response would be much higher than 87.5 per cent. The average household size in Lebanon at that time was 4.8. The factor necessary to achieve the 95 per cent confidence level is 4.

Taking all the above parameters into account, the formula for sample size calculation below (see Appendix 7 of the 2000 MICS manual) gives the number of households needed in the sample for one domain. It had to be modified for five domains, which is discussed below.

$$n = \frac{4r(1-r)(1.125)f}{e^2(p)(n_h)} = \frac{4(.15)(.85)(1.125)(1.5)}{(.03)(.03)(.1)(4.8)} = 1992$$

To adjust the sample size for domains, two alternatives are suggested in the 2000 MICS manual. One is to multiply  $n$  that is needed for one domain by the number of domains. This gives  $5 \times 1,992$ , or 9,961. Because the survey budget could not accommodate that large a sample size, another approach that would give somewhat higher margins of error is to multiply  $n$  by the factor  $D$  raised to the power of 0.65, where  $D$  is the number of domains. This is approximately equivalent to taking the cube root of  $D$  squared, which, in our case, is the cube root of 25, or about 2.92. That number multiplied by 1,992 would give a sample size of 5,817 for five domains. It was decided that the average of the two alternatives, 7,889, would be used. It was further adjusted upward in order to accommodate 65 clusters per domain (7,889 would require about 63 clusters, that is  $7,889/25$ , or about 315 or 316 total and thus  $315/5$ , or 63 in each domain). It is useful to see the effect on the margin of error with this sample size. The calculated value of

n for diarrhoea is 1,992. Recall above that this would provide a margin of error of plus or minus 3 percentage points. The final sample size, however, is 8,125/5 or 1,625 per domain. Thus the margin of error is somewhat higher. The increase is calculated as the square root of the ratio of sample sizes, or the square root of 1,992/1,625, which is about 1.033. Thus the expected margin of error for this particular indicator at the governorate level would be about 3.3 percentage points, if the prevalence rate for diarrhoea was approximately 15 per cent.

### *Sample Allocation*

The measurement objectives must be taken into account when deciding how to properly allocate the sample. When national estimates take priority, the sample should be allocated proportionately among the various governorates. For example, if a governorate contains 35 per cent of the nation's population, then 35 per cent of the sample would be selected in that governorate under the proportional allocation scheme. The problem with this approach, however, is that small governorates (say, one containing only 10 per cent of the population) would have too small a sample size to provide reliable estimates. The latter becomes a serious problem if the governorate level, as opposed to the national level, is the main priority.

The governorate level was in fact the main priority for the government and for UNICEF/Lebanon. This is because programme planning and policy implementation projects to improve the situation of women and children must proceed at the local level. For that reason, estimates that were as reliable as possible were wanted for each of the governorates. To accomplish this, the sample had to be allocated equally among the governorates (the four large ones plus the southern combination).

Table 4.14 displays the allocation of the sample and the rest of its parameters by governorate.

**Table 4.14**  
**Sample Parameters – MICS 2000 in Lebanon**

Muhafaza (governorate)	Sample size – number of households (hhs)	Sample size – number of clusters (ilots)	Cluster size – no. of sample hhs per cluster	Total number of frame units (occupied dwellings)	Sample interval to select ilots <i>pps</i>
Beyrouth	1,625	65	25	101,707	1 in 1,564.7
Mont Liban	1,625	65	25	356,517	1 in 5,484.9
Nord	1,625	65	25	150,018	1 in 2,308.0
Beqaa	1,625	65	25	97,638	1 in 1,502.1
Sud/Nabatieh	1,625	65	25	149,093	1 in 2,293.7
Lebanon total	8,125	325	25	854,973	-

### ***Implementation – Sample Selection Procedures***

The first stage of selection was a systematic *pps* sample of census ilots, where the measure of size was the count of occupied dwellings. Prior to selection, the ilots were sorted by governorate and within governorate by caza (district), grand zone and ilot, the latter of which were geographically sequenced. This was all done using the seven-digit geographic identification code of the geographic database. In this way, the systematic selection that was carried out ensured implicit stratification of the sample for each of the domains, or governorates. Sixty-five ilots were thus selected in a computer operation for each domain.

To implement the second stage of selection, a current field listing of households was undertaken. Many of the sample ilots were very large and had to be segmented before conducting the listing. About 180 of the 325 ilots were segmented because they contain more than 150 households each, according to the 1995-1996 sampling frame.

Segmentation was carried out in accordance with Table 4.15.

**Table 4.15**  
**Number of Segments to Create**

<b>Number of households (according to frame)</b>	<b>Number of segments</b>
Under 150	No segmentation
150-249	2
250-349	3
350-449	4
450-549	5
550-649	6
650-749	7
Etc.	Etc.

Some of the sample ilots, about 12 of them, contained fewer than 25 households, according to the frame. For these ilots, no field listing was necessary. Instead, all households contained within the boundary of the ilot were interviewed for MICS, even if the number of such households at the time the MICS was conducted in 2000 was greater than 25.

For segmentation, Table 4.15 was used to figure how many segments to create. For example, if the frame showed that the sample ilot contained 580 households, six segments were created. Procedures about segment construction outlined in Chapter 6 of the 2000 edition of the MICS manual were followed. After segmentation, one segment was selected at random from each ilot that had been segmented.

For all ilots (under 150 households plus the selected segments for those greater than 150

households), another visit to the field was made in order to make a complete listing of the then-current households. Next, sampling of households was systematic within each ilot, or segment, at the rate of 1 in  $I$ , where  $I$  was the sample interval, equal to  $N_i \div \eta$ , where  $N_i$  was the actual number of households on the listing for the  $i^{\text{th}}$  sample cluster, and  $\eta$  was 25, the desired cluster size. The value of the sampling interval,  $I$ , varied for each sample ilot or segment and it was calculated to one decimal place.

### ***Weighting and Estimation***

To prepare the survey estimates, weighting had to be used because the sample was not self-weighting; in other words, the sample cases did not all have the same probability of selection. Weighting necessitated multiplying the raw sample data by the sample weight. Weights were variable by cluster since the weight for households in each cluster depends on the measure of size and the number of households obtained in the listing operation for that cluster.

The weights are equal to the *inverses* of the probabilities of selection. The probability for the households, persons, children, women or any other target population group in a particular cluster is given by the following:

$$P_{ih} = \frac{(65)(25)m_{ih}}{M_h N_{ih} S_{ih}} \text{ where}$$

- $P_{ih}$  is the probability of selecting a household (or person) from the  $i^{\text{th}}$  cluster of the  $h^{\text{th}}$  domain
- **65** is the number of clusters in each domain
- **25** is the cluster size
- $m_{ih}$  is the measure of size in the  $i^{\text{th}}$  cluster of the  $h^{\text{th}}$  domain, that is, the number of occupied dwellings according to the sample frame
- $N_{ih}$  is the number of households listed in the  $i^{\text{th}}$  cluster of the  $h^{\text{th}}$  domain
- $s_{ih}$  is the number of segments created in an ilot (the value of  $s_{ih}$  is 1 for ilots that are not segmented)
- $M_h$  is the total measure of size in the  $h^{\text{th}}$  domain, that is, the sum of the  $m_{ih}$  values, or  $\sum m_{ih}$ .

Note that the value of  $N_{ih}$  is the number of households listed in the cluster, which in non-segmented ilots is the entire ilot, while in segmented ilots it is the segmented part (see examples below).

As mentioned, the weight,  $W_{ih}$ , is the inverse, or  $1/P_{ih}$ .

The  $M_h$  values are those in the fourth column of Table 4.14 for each of the domains. The product of 65 and 25 is 1,625. Weights, therefore, for households or persons for the five domains are as shown in Table 4.16.

**Table 4.16**  
**Survey Weights by Domain (for Ilots with 25 or more Households)**

Governorate	Weight
Beyrouth	$(62.6N_i s_i)/m_i$
Mont Liban	$(219.4N_i s_i)/m_i$
Nord	$(92.3N_i s_i)/m_i$
Beqaa	$(60.1N_i s_i)/m_i$
Sud/Nabatieh	$(91.7N_i s_i)/m_i$

**EXAMPLE:**

Suppose in Beyrouth the measure of the size,  $m_i$ , on the sample frame for the first sample cluster selected is 612. Thus it is segmented into six segments, which is the value of  $s_i$ . Suppose further that the number of households listed in the cluster is 110. Then the weight for all households and persons in sample for that cluster would be equal to  $(62.6)(110)(6)/(612)$ , or 67.5.

**EXAMPLE:**

Suppose in Mont Liban the measure of the size,  $m_i$ , on the sample frame for the first sample cluster selected is 106. Hence it is not segmented and the value of  $s_i$  is 1. Suppose further that the number of households listed in the cluster is 98. Then the weight for all households and persons in sample for that cluster would be equal to  $(219.4)(98)(1)/(106)$ , or 202.8.

It was expected that it would be necessary to adjust the *design* weights discussed above by an additional factor to account for non-response. This was simply a matter of multiplying the weight, separately for each domain, by the ratio of sampled households to interviewed households. The product of the design weight and non-interview factor then becomes the final weight against which to multiply the raw sample counts to produce the estimates.

## PAPUA NEW GUINEA

MICS in Papua New Guinea was carried out by the National Statistics Office. Its design illustrates issues of sample frame updating and coverage as well as choosing between an existing survey sample (DHS) versus designing a new one. Weight calculation for the Papua New Guinea MICS is also informative. But it is somewhat similar to that of Lebanon, and therefore will not be presented here.



### ***Summary of Sample Design***

Sampling was a two-stage selection process utilizing the 1991 Population Census, partially updated, as the sampling frame. The primary sampling units (PSUs) were defined as census enumeration areas or units (CUs). A total of 175 PSUs were selected with probability proportionate to their measures of size (*pps*), the latter of which were the 1991 household counts in rural areas and updated dwelling counts in urban areas. Census enumeration units selected at the first stage were listed anew; that is, a fresh listing of households was prepared in a field operation. The new listing constituted the sampling frame for the second stage of selection. A fixed sample size of 25 households from the listings was selected systematically in each sample CU for MICS. Altogether, 4,375 households was the targeted sample size.

The number of sample clusters was calculated as 175 by dividing 4,375 by 25. About 43 per cent were allocated to the urban stratum (75 clusters) and 57 per cent to the rural stratum (100 clusters). Before selection at the first stage, the frame was implicitly stratified by sorting the population census by urban and rural at the first level and by region, province, district, subdistrict and CUs at subsequent levels.

### ***Sample Frame Modification and DHS as an Alternative***

The most recent census to use as a frame for sampling in the 2000 MICS in Papua New Guinea was the population census of 1991 – thus, it was 9 years old at the time. It was out of date to varying degrees in various areas of country, but primarily in urban areas, especially Port Moresby. At the time of the MICS, the National Statistics Office was also preparing to conduct the Year 2000 Population Census, and it intended to use the same census administrative units, CUs, that were used in the 1991 census. Those CUs were in the process of being updated through a new listing of households. At the time of the MICS, the updating had been confined to urban areas, which, for purposes of MICS, was the most important sector in terms of using the data as a sampling frame.

The alternatives were to (1) postpone the MICS until the census update operation was completed in the rural areas or (2) use the old census as the sampling frame for rural areas and the updated one for urban areas. What is of key concern for any frame is to have measures of size – that is, counts of households to use in establishing the selection rate – that are *fairly* accurate. An important point to keep in mind, however, is that the measures of size do not need to be 100 per cent perfect, in order to use them validly for sample selection at the first stage. It was expected, therefore, that the rural CUs from the old census would have household counts that would differ from the situation in 2000 by only a few percentage points; thus, they were still fairly accurate. By contrast, the urban CUs were likely to be quite different, perhaps by factors of 2 or 3 or even greater, compared to 9 years earlier. This phenomenon occurs because, while relatively few people migrate from each rural CU, they all migrate to the same, comparatively few urban CUs. Thus it was much more important to have updated counts for the urban CUs than for the rural ones.

It was consequently decided that, for MICS, two frames would be used for the sample design. For rural CUs, the 1991 Population Census was used as the frame. For urban CUs, the updated CU lists, with their revised count of dwellings that had been prepared for the Year 2000 Population Census were used.

Consideration was given to utilizing the Demographic and Health Survey (DHS) of 1996 as a frame alternative to the 1991 Population Census. This survey has similar objectives to MICS and the sample PSUs were updated in 1996. Thus, the rural PSUs were considerably more current in terms of measures of size than the 1991 census. However, the measurement objectives of DHS were to provide national level data, and this meant that the sample PSUs were distributed proportionately throughout the country. As such, the urban PSUs that were available from DHS were too few to use for MICS, where an important objective was to provide reliable data for the urban sector as a key estimation domain. Accordingly, the DHS was dropped from consideration.

### ***Sample Coverage***

Certain, mostly interior, areas of Papua New Guinea are inaccessible except by helicopter. The Government felt that survey coverage of the population of these areas would be prohibitively expensive. Accordingly, the Government decided not to include inaccessible areas in MICS, even though it was recognized that the health status of women and children in such areas may be quite different than that of the rest of the country.

To achieve a valid survey methodology it is important to eliminate the excluded areas from the sampling frame prior to sample selection. In this way, the sample that is chosen can still be a probability sample of the *covered* population, even though the latter is less than national in scope. The alternative of selecting the sample areas first and then substituting whenever an excluded area is chosen is a biased procedure statistically, and it was not used. Accordingly, a list of the inaccessible districts or subdistricts that were to be excluded from survey coverage was compiled and all CUs that make up those areas were eliminated from the sample frame.

### ***Sample Size and Allocation***

The Government had hoped to conduct the MICS with a sample of about 2,500 households. The 2000 MICS manual urged countries to find a sample size that would enable them to measure their most important indicators with a margin of error of 3-5 percentage points (95 per cent level of confidence). At the national level, it was fully expected that 2,500 households would be sufficient to meet those requirements. However, the Government was also interested in having separate, reliable estimates for certain domains, that is, subnational areas that are important for policy planning. These are urban and rural areas, plus four regions: southern, northern, highlands and islands.

For the regional estimates, in particular, a sample size of 2,500 was thought to be insufficient, because there would only be, on average, about 625 households in each sample per region – not enough to yield very reliable estimates for key indicators. On a related point, the distribution of the population for the urban and rural sectors suggests that disproportionate sampling had to be used in order to obtain enough sample cases for the urban part. This is because only about 15 per cent of the population of Papua New Guinea reside in urban areas. If the sample were selected proportionally, therefore, less than 400 of the households would be urban, and in only 15 PSUs, both of which are too small of numbers to produce reliable results.

The above suggested two things: (1) oversampling should be used in the urban sector and (2) the sample size should be increased, overall, to yield sufficient cases to provide reliable regional estimates.

The number of clusters – that is, the first-stage selection units (PSUs) – is also a factor that must be taken into account for the domain estimates. With 100 PSUs, the average number for a given region would be only 25. This was too thin to provide adequate ‘spread’ of the sample at the regional level. There ought to be about 50 PSUs for each domain estimate, but the absolute minimum should not be less than 30. Accordingly, it was decided that the overall sample size be increased from 2,500 to 4,000 households. It was further decided to make an allowance of 10 per cent for non-response, thus increasing the sample size to about 4,375 households. The number of clusters was then also increased from 100 to 175 ( $4,375 \div 25$ ).

Finally, it was decided that the urban stratum be oversampled by a factor of about 3, that is, an increase in the proportion of the overall sample that is urban from 15 per cent to 43 per cent. That would then yield about 1,875 households in 75 PSUs for the urban stratum and 2,500 households in 100 PSUs for the rural stratum. Oversampling in the urban areas was necessary in order to provide enough sample cases to provide reliable estimates. The disproportionate sample in the urban stratum, however, still left about 2,500 households in sample for the rural stratum, which was more than adequate for reliable figures.

### ***Implementation – Sample Selection Procedures***

In Papua New Guinea, the sample selection procedures were very similar to those in Lebanon – with one important difference. Thus we will only describe how they differed. Two options may be considered, according to the MICS manual (both editions), in deciding on a methodology to use in selecting households at the second (or third) stage. One is to carry out a new listing of households in the sample clusters and to select the households from the new listings. As mentioned in the manual, this is the preferred approach for the MICS, both because it is slightly more reliable and somewhat less complicated than the alternative.

The alternative, however, is an approach that has the advantage of avoiding the expense of listing, which can be considerable, and that is the main reason it is suggested in the manual as a suitable option. That option entails constructing geographic segments of approximately equal size in each sample cluster (CUs for Papua New Guinea), selecting one at random and

interviewing all the households within the chosen segment for MICS. As implied above, however, the alternative, though valid, is not as reliable as the listing approach because the households in the sample are ‘clustered’ together and the sample design effect is therefore somewhat greater. Secondly, segmentation is more complicated than listing and may therefore introduce greater non-sampling error, especially if the staff persons are not well trained in the proper use of maps, including segment sketching. The National Statistics Office decided to opt for the preferred approach – listing instead of segmentation.

## **ANGOLA**

The Multiple Indicator Cluster Survey was implemented by the Instituto Nacional de Estatística in Angola. The sample design for the MICS in that country illustrates survey implementation done in two phases, months apart, as well as associated issues of population coverage, frame deficiencies and presentation of results to users.

### ***Summary of Sample Design***

The principal measurement objectives of MICS were (1) to obtain the relevant, end-of-decade World Summit for Children indicators to profile the situation of women and children in Angola and (2) to provide these estimates at both the national level and for three ecological zones (domains) – litoral, planalto and interior.

The sampling methodology for MICS 2000 in Angola made use of probability selection procedures to choose about 6,660 households in a stratified, clustered design. The survey was administered in a two-phase operation, with the first phase utilizing a sample frame developed for the 2000-2001 Survey of Income and Expenditures (Inquerito sobre Despesas e Receitas, or IDR). The second phase, conducted approximately 2-3 months later, was carried out in the balance of the MICS survey universe, that is, in territory that was excluded from the IDR. The latter phase was delayed because sampling frame materials first had to be developed for it.

### ***Sample Selection***

Sample selection was a two-stage selection process in urban areas and three stages in rural areas. The first-stage units (that is, the primary sampling units – PSUs) are defined as ‘seccaos censitárias’ in urban areas and they consist of geographically defined segments – typically municipal blocks – that contain an average of about 100 households. In rural areas, the clusters are communes, and the secondary units are villages. Thus, the MICS clusters themselves are the first-stage units in urban areas, but second-stage units in rural areas.

The clusters were selected in the so-called ‘covered’ areas of the country. These are defined as government-controlled, accessible areas of the country and consist, generally, of provincial and/or municipal capitals, plus some rural areas. Sample coverage was carried out by first removing from the sampling frames those areas that were to be excluded due to problems of internal security and/or access, including areas that were purportedly mined. In addition, internally displaced persons who were living in camps were not covered by the main survey, although there was a plan for sampling and interviewing them as a separate operation.

Sample selection of first-stage units was done with probability proportionate to their measures of size (or *pps*). The measures of size, m.o.s., were then-current *counts* of houses or other dwellings in urban areas and current *estimates* of the rural population in rural areas. The counts were obtained from actual field canvassing, while the estimates were taken from local information provided at the provincial level.

A total of 408 clusters were selected – 300 from the phase-one IDR frame and 108 from the residual, phase-two frame. Sampling procedures differed for the two phases. In phase one, the MICS clusters were a systematic subset of those already selected for IDR. These clusters had already been listed anew, that is, a fresh listing of households was prepared in a field operation for the IDR. This listing constituted the sampling frame for the last stage of selection. A systematic selection of 15 households was selected in each of the 300 MICS clusters of phase one, independent of the households that were chosen for the IDR, in order to avoid overlap between the two survey interviews. Twenty households per cluster were chosen in the 108 phase-two clusters.<sup>23</sup>

In phase two, the sample frame had to be developed in the same way as it was developed for the IDR, except that it was extended to those MICS provinces and other areas that were not covered by IDR. Thus, the phase-two frame constituted the source for the selection of the 108 clusters. They were selected using probability proportionate to size. Selected clusters were then listed in the field, so that the second-stage selection of 20 households per cluster could be carried out. This was done using systematic selection.

The sample of 6,660 households was distributed proportionately among the three ecological zones or domains. Each of the domains was large enough, in terms of population, so that reliable results could be provided at the domain level with the use of proportionate allocation of the sample. It was thought that non-response in the survey would be about 10 per cent, in which case the number of households actually interviewed for the survey was expected to be closer to 6,000.

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<sup>23</sup> The cluster sizes differ between phase one and phase two because 20 households per cluster was the recommended number for MICS (see the 2000 edition of the MICS manual), but 15 households was more convenient operationally to select from the IDR frame.

It was not possible to estimate accurately the percentage of the population to be covered by the survey, since current demographic data were not available. It was thought, however, that perhaps 10 per cent of the population resided in camps for internally displaced persons and another 15-25 per cent resided in the inaccessible areas. Thus, it was estimated that about 65-75 per cent national population coverage would be attained by the MICS (see next section).

### ***Sample Frame and Coverage***

Perfect sampling frames are rarely encountered in practice anywhere, but satisfying the three criteria of completeness, accuracy and currency was especially difficult in Angola. There are several reasons. One is that the usual frame used for national sample surveys is the latest census, which, in the case of Angola, would be the 1970 population census, and that was too out of date for consideration. Thus, other, more recent frames, had to be used – ones that were likely to be somewhat inferior to a current census frame (see further discussion below).

Second, as already mentioned, mined areas were excluded from coverage, as were camps for internally displaced persons and other inaccessible areas. As a result, the criterion of completeness was violated, and to an unknown degree, although it was speculated that national coverage would be about 65-75 per cent, as mentioned above. Third, the available frames suffered from inaccuracies of unknown magnitude, especially in the rural areas where the quality of the population estimates (used to establish the probabilities of selection at the first stage) were thought to be widely variable province-to-province.

The implications for MICS 2000 in Angola were that the survey results would be biased and to an unknown degree, *if the results had been presented as though they represent the entire country*. This is because ‘representativeness’ cannot be statistically justified for the subpopulations excluded from coverage – subpopulations that are likely to have somewhat different characteristics from those that were included. Another important implication is that estimates of the size of the national population could not be made from MICS, because of lack of coverage of the excluded subpopulations.

Nevertheless, valid and useful results were obtained from the *covered* population of the MICS, by using careful probability methods in selecting the sample households from the frames that were used, even though these frames were somewhat imperfect. In terms of survey coverage, the frame that was developed by the Instituto Nacional de Estatística for the IDR was excellent as far as it went. It was a valid and defensible source to use for phase one. The problem with it was that it covered only seven provinces and, within those provinces, usually urban territory only. This is why it was necessary to develop another frame for phase two – to cover the additional 11 provinces, plus as much rural area as could be deemed accessible for surveying.

An important lesson on release of data to the public is learned from the Angola MICS. Release of the survey results in reports should always be handled by stating, as precisely and clearly as

possible, the definition of the actual population covered by the survey. In the case of Angola, it was important to inform users that the MICS presented scientifically defensible results for approximately 65-75 per cent of the population of Angola, but did not represent persons living outside government-controlled areas, those residing near certain excluded areas that are mined and internally displaced persons residing in camps.

## CHAPTER 5

# PREPARING FOR DATA COLLECTION

*This chapter is written for survey coordinators and technical resource persons.*

*It will help you to:*

- Make logistical arrangements
- Prepare the questionnaire and training materials
- Select and train fieldworkers
- Choose and prepare the equipment
- Carry out the pilot study
- Set up computers and hire data processing staff
- Make arrangements for returning questionnaires to headquarters
- Prepare for collecting supplementary information
- Address ethical considerations

## MAKING LOGISTICAL ARRANGEMENTS

Logistical arrangements include (1) setting up central headquarters, (2) contacting local authorities where the survey will be carried out, (3) deciding on the size and composition of the field teams, (4) arranging accommodations, transportation and security, and (5) arranging to obtain or prepare copies of local maps.

### SETTING UP HEADQUARTERS

The survey must have a central headquarters, preferably in the capital, from which the whole operation will be coordinated. It is often possible to set up this office at a government institution such as a national statistical office or ministry of health. Usually, two to three rooms are needed for general administrative activities, in addition to meeting rooms where the training can take place. The headquarters office will hold the computing equipment and serve as the storage place for questionnaires. The rooms where questionnaires and data-processing equipment are kept must be secure, so that only survey

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**The rooms where questionnaires and data processing equipment are kept must be secure. Only survey personnel should be able to access them.**

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personnel can access them. Telephone or radio facilities are necessary for keeping contact with the field teams.

### **CONTACTING LOCAL AUTHORITIES**

In some areas, the arrival of a team of strangers may be regarded with suspicion. National authorities should prepare a letter to send to local authorities well before survey staff contact them. In the past, survey teams' failure to contact local authorities in advance to let them know what they would be doing has caused problems. In one extreme example in Latin America, the interviewers who had not contacted the local authorities before arriving were arrested. You can avoid such problems by contacting local authorities and community leaders before beginning the study, to ask for their permission and to advise them of the team members' arrival dates. You can also ask them at this time to identify suitable local guides and, if necessary, translators. Another area in which local authorities may be helpful is in arranging accommodations and meals for the survey team.

### **DECIDING ON THE SIZE AND COMPOSITION OF THE FIELD TEAMS**

The number of interviewers required depends on the sample size, the number of days to be spent interviewing and on the number of households one interviewer can complete in a day (or the number of clusters a team can complete in a day). You can estimate this number from the length of a working day divided by the amount of time it takes to complete one interview (determined when you pre-test the questionnaire – see below), allowing some travel time. You should keep in mind that travel time will usually be substantially longer in rural than in urban areas.

#### **EXAMPLE:**

The pre-test has shown that an interviewer will need approximately 60 minutes to complete all interviews in a household, on average. You also estimate that 10 more minutes will be needed to move from house to house. Considering a 6-hour working day (to allow for transportation to and from the selected area and for a midday break), one interviewer would cover about five households a day  $[(6 \text{ hours} \times 60 \text{ minutes}) \div 70 \text{ minutes}]$ . A four-interviewer team would cover 20 households a day, which could correspond to the size of a cluster.

To estimate the total duration of your survey, you should also allow for travel time from town to town, 1-day breaks every week, and travel time of fieldwork teams from headquarters to the field and back. You should also make sure to allow time for call-backs, as well as unanticipated delays.

#### **EXAMPLE:**

In Chapter 2, we estimated that 32 interviewers would cover 6,000 households in 40 working days, but we allowed a further 14 days for travel from town to town and for unexpected delays.

You can calculate the number of interviewers needed using this formula:

$$\text{Number of interviewers} = \frac{\text{Sample size}}{\text{Number of days available} \times \text{Households per interviewer per day}}$$

**EXAMPLE:**

If the sample size is 6,000 and you want the work done in 40 days, and if each interviewer can do 5 interviews a day, the required number of interviewers will be  $6000 \div (40 \times 5) = 30$  interviewers

An alternative way of calculating the number of interviewers needed and the total number of days needed to complete the fieldwork is to take into account the number of teams needed to begin with, and follow this by calculating the number of interviewers needed. The following formula can be used for this purpose:

$$\text{Number of teams} = \frac{\text{Sample size}}{\text{Desired length of fieldwork} \times \text{Number of interviews per team per day}}$$

**EXAMPLE:**

Continuing the example in Chapter 2, we calculate the number of teams needed as follows: We have a sample size of 6,000 households and we want to complete the fieldwork in 40 working days. We estimate that a fieldwork team composed of one supervisor, one editor and four interviewers will be able to complete 20 households per day, which is our cluster size. Then,  $6000 \div (40 \times 20) = 7.5$ . Rounding this up to allow for call-backs, unexpected delays, etc., we get eight teams – in other words, 32 interviewers.

The advantage of this approach is that it makes it possible to take into account the fieldwork teams to begin with, and allows the linking of cluster size with team size, composition and fieldwork duration.

*If possible, avoid using a large number of interviewers.* Having a large number of interviewers means that fieldwork can be conducted over a shorter period of time; however it also means that it will be more difficult to ensure high-quality training and supervision. UNICEF recommends that the length of fieldwork and the number of field staff be balanced in such a way that the number of interviewers is kept at a size that will enable standardized training to be organized centrally and high-quality supervision of fieldwork to be carried out. A relatively small number of interviewers will make it possible for the same trainers to provide training to all interviewers, thus ensuring consistency. As discussed later, it is crucial to monitor the fieldwork operation and provide feedback to interviewers before a large number of households have been interviewed. For this to happen, it is necessary that fieldwork be conducted at a pace that will allow for the identification of systematic errors, if any, and feedback provided to field teams before it is too late.

In countries where the fieldwork will have to be carried out by different teams in each region or district and training will be provided locally, you should make sure that the training for each team is the same, to the extent possible. It is best to use the *same trainers* and training materials for *all* the survey fieldwork training. This means that one group of trainers, who know the requirements of the survey very well, should do all the training, even if this means that they must repeat the training course several times.

Once you have decided how many interviewers are required, work out the team composition. The team composition and the number of interviewers per team will have to be decided based on a number of factors: the expected duration of interviews, the content of the questionnaire, the size of clusters, etc. For instance, if anthropometric measurements will be undertaken, the team will have an additional workload, and it will be necessary to have the editor on the team carry out measurements as well as edit questionnaires with help from the supervisor. There may be cases where anthropometry will not be included in the survey and cluster size will be small, say 12. In this case, a team composed of a supervisor, plus three interviewers, assuming that they can complete four households per day, will be sufficient. On the average, however, for a typical MICS3 covering most of the core modules plus a number of additional and optional modules, each team will need one supervisor, one editor, one driver (unless public transportation is used) and three to five interviewers (depending on how many households an interviewer can complete in a day and the cluster size). A common team composition will include seven persons: supervisor, editor, driver and four interviewers. This arrangement assumes that the vehicles will be large enough to carry seven persons plus their equipment, questionnaires and personal luggage.

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**When in doubt, be conservative. If you are not sure whether each interviewer can do four or six interviews a day, choose the smaller number. Allow plenty of time for travel and for rest, since fieldwork can be very tiring.**

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#### ARRANGING TRANSPORTATION, ACCOMMODATIONS AND SECURITY

Transportation may be provided by government offices or arranged privately – for example, by renting cars. When using government vehicles, ensure that they are well maintained and that there will be no conflicting demands for them during the fieldwork period. Allow funds in the survey budget for fuel, maintenance and unforeseen repairs, or ensure that they will be covered by government funds (you will need to ensure that vehicles can be re-fuelled and serviced 7 days a week during fieldwork). Estimate fuel needs by calculating the typical distances to be travelled from town to town and within each selected area.

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**Make plenty of allowance for extra mileage, since the actual distances to be travelled are often underestimated.**

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It is often possible to arrange for the team's accommodations with local communities: Teams may sleep in guesthouses, army quarters or even the mayor's house. If private accommodations are arranged, make sure that the interviewers get a daily allowance that is sufficient to cover their costs. Meals may also be arranged with the local authorities, as mentioned above. Many places have no commercial restaurants, so meal arrangements have to be made in advance.

Security issues are also important. Fieldwork may take place in urban slums or in rural areas where there may be security problems. Local guides are often useful in anticipating and avoiding security risks. These issues must be considered in advance.

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**Adequate arrangements for transportation, accommodations, meals and security are essential not only for ensuring high-quality and timely data collection, but also for the psychological well-being of the interviewing team.**

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On the other hand, there have been cases where, due to envisaged security problems, the police or the military has accompanied fieldwork teams to the clusters, and this has resulted in high refusal rates and reluctance of the local community to cooperate with the fieldwork team. Such situations will, of course, depend on the political context, and consideration should be made of the possible effects on data quality of taking such precautions. However, the priority should always be the security of the fieldwork team.

Finally, careful arrangements should be made for paying the fieldworkers and supervisors as well as providing them with 'pocket money' for meals, accommodations and unexpected expenses. Timely payment is essential for maintaining the team's morale.

### **OBTAINING AND PREPARING COPIES OF LOCAL MAPS**

Before the fieldwork begins, you should obtain copies of maps indicating the large areas (states, provinces, districts, towns, etc.) as well as the small areas (villages, census enumeration areas, etc.) in which the survey will be conducted. These may be available from the census bureau or another government office. Army maps are often very useful, if it is possible to gain access to them. Make sufficient copies of all maps in advance.

## **PREPARING THE QUESTIONNAIRE**

The questionnaires you need for conducting your survey are provided in Appendix Two. Before training begins, you will need to translate the questionnaire and the instructions for interviewers, supervisors and editors into all the major local languages. As explained in Chapter 3, do not expect the interviewers to translate the questions as they ask them. Different interpretations of the questions will make the data useless.

One person, preferably a native speaker of the language, should translate the questionnaire. Following that, another translator should independently translate the questionnaire back into the original language. The two versions can then be compared. Be sure to consult technical people, familiar with the terms used in the questionnaire, especially when translating words for certain health conditions. Discuss any words or terms that seem to be ambiguous or confusing, and agree on the correct translation.

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**All the interviewers must ask the questions in the same way.**

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When more than one local language exists in the area to be surveyed, use this translation procedure for all the questions and the instructions, for each language that will be used. Remember to give the translators very clear definitions of all the terms used in the questions. The survey coordinator may need to work closely with the translator to ensure that he/she understands the meaning of the questions. The correct definitions are given in the Instructions for Interviewers (Appendix Three).

**EXAMPLE:**

Make sure the order of the questions is not changed during the translation process. Take particular care over the translation of phrases such as 'seek advice or treatment' and 'since this time yesterday'. Be careful, as well, when referring to answers from previous questions (for example, 'during this last episode of diarrhoea').

## **PRE-TESTING THE QUESTIONNAIRE**

You must pre-test the translated questionnaire in the field. The pre-test should identify potential problem areas, such as dates of birth or vaccinations, unanticipated interpretations and cultural objections to the questions. Apply the pre-test to respondents similar to those who will be interviewed during the survey. The survey coordinator should do the pre-test with the help of future supervisors or interviewers – well before fieldworker training is to take place. Make sure to work with individuals who will be able to provide feedback at the end of the pre-test exercise. Do not make final copies of the questionnaire for the survey until *after* you have pre-tested, and, if necessary, revised it.

The objectives of the pre-test were discussed in Chapter 3 and are not taken up here. However, a number of additional points are indicated.

- It is very important to assess the duration of interviews during the pre-test, since this influences the plans for fieldwork, planned workload for interviewers and, most importantly, helps you assess whether the duration of the interviews will be appropriate for respondents. Although there are no standard recommended durations for interviews, it is important to make sure that interviews are not so long that they

- fatigue respondents and lead to the collection of poor quality data. Therefore, make sure to include starting and ending times on your questionnaires during the pre-test, and evaluate these data at the end of the pre-test. In doing so, also note that during the pre-test, interviewers are still learning the questionnaire, so the time spent per interview is longer than it will be in the field after they become more experienced.
- Regarding the duration of the pre-test itself: A pre-test exercise for the global MICS3 questionnaires has shown very clearly that 1 week of training is not sufficient. Depending on the length of the questionnaires, pre-test training should probably run for 1 to 2 weeks, plus the pre-test fieldwork exercise.

Once the questionnaire has been translated and pre-tested, you will need to make copies of it to use in field staff training and in the survey itself. When preparing the questionnaire for printing, remember the following:

- Do not change the layout of the questionnaire. In particular, do not try to squeeze too many questions onto a page. A good layout helps to reduce interviewer error in the field. If you use the layout given for the questionnaires, data can then be entered directly into the computer. This saves time and effort.
- Use good-quality paper. This will help you to write clearly and will prevent the questionnaires from tearing.
- Use a heavier stock of paper for the cover of each questionnaire, preferably in a different colour, so you are able to easily differentiate them.
- Print the information panels of each questionnaire on the outside of each cover, rather than on inside pages, to permit staff to find questionnaires according to the identification fields without having to open the questionnaire.
- Ensure that questionnaires are stapled together well, with a minimum of three staples per questionnaire, preferably with the staples on the spine of the questionnaire.
- Print more copies than you need. There will always be some wastage, and extra copies are needed for training. Allow a separate set of questionnaires for each household in your sample.

*The manual for interviewers, supervisors and editors should be translated with the same care as the questionnaire.* Pre-test it by giving it to potential interviewers, supervisors and editors. Have them read the relevant manual and discuss it with them to identify any instructions that are unclear.

## SELECTING THE FIELDWORKERS

The quality of the information obtained from a survey depends on the quality of the work done in the field. Good survey organization and thorough fieldwork are vital.

A team of interviewers and their supervisors and editors will do the fieldwork. A detailed description of each of their tasks is provided in Chapter 6, but the brief job descriptions given

below will help you identify potential candidates.

The *field supervisor's job* is to:

- Identify the clusters to be surveyed
- Supervise interviewers as they perform the survey
- Ensure that the interviewers follow instructions
- Answer interviewers' questions as they arise
- Control data quality by checking for errors during interviewing, checking that forms are completed fully and correctly, and checking that all respondents are answering the questions
- Identify problems and retrain interviewers who are doing their job incorrectly.

The *field editor's job* is to:

- Monitor interviewer performance by:
  - Observing several interviews every day, especially during the early stages of fieldwork
  - Editing all completed questionnaires in the field, before leaving the cluster
  - Conducting regular review sessions with interviewers
  - Compiling completed questionnaires from a cluster and packing them up to be sent to the central office
- Obtain anthropometric measurements of children under 5 years of age.

The *interviewer's job* is to:

- Identify the specific households to be surveyed
- Gain the consent of respondents to be interviewed
- Conduct interviews using the standard questionnaire
- Maintain standard procedures in conducting the interviews and recording the answers.

The interviewers, supervisors and editors should be selected for their ability and motivation to perform these tasks. Supervisors and editors must understand the importance of adhering to survey instructions and be capable of ensuring that interviewers follow instructions.

The interviewers, supervisors and editors should be:

- Intelligent and educated – to secondary-school level or higher
- Willing to follow instructions precisely and accurately
- Polite and able to establish a good relationship with respondents
- Fluent in the language of the respondents.

Previous survey experience is not necessarily a positive factor. While participation in well-conducted surveys can be an advantage, previous involvement in poorly planned and implemented surveys may have led to bad interviewing habits that may be hard to correct.

**EXAMPLE:**

In many countries the standards of so-called market research are very poor. Interviewers with previous experience in these surveys may actually require more training than completely inexperienced candidates.

You should also try to avoid overqualified interviewers, who may follow their own agenda and stray from the precise techniques developed for conducting the survey.

**EXAMPLE:**

In some countries, medical doctors were used for data collection, often with disastrous consequences due to their inability or unwillingness to follow the questionnaire instructions precisely and their tendency to make medical diagnoses during the interview.

Use female interviewers in each team, and ensure that the age of the interviewers is adequate for the information you want. In some societies, women may be reluctant to provide answers to sensitive issues such as pregnancy outcomes or breastfeeding to interviewers who seem too young. In almost all societies, women will be very reluctant to provide answers on sex-related matters to male interviewers. Since the MICS3 questionnaires include modules on contraception, sexual behaviour, HIV/AIDS and other sensitive issues, female interviewers must be used in MICS3. Supervisors and editors can be of either sex, although having female supervisors and editors will also make it possible for them to observe interviews.

In addition to the above qualifications, supervisors should preferably have previous field experience as interviewers in well-conducted surveys.

Always select more potential interviewers than you will need. Train all of them and select the required number at the end of the course. This will guarantee that only the best fieldworkers will be involved in the study, and will also provide a few additional interviewers in case you need replacements. Provide training certificates to all participants of the training course, including those who will not be employed for the fieldwork.

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**Always select more potential  
interviewers than you will need.**

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## CHOOSING AND PREPARING THE EQUIPMENT

Equipment must be purchased well in advance of the survey. Table 5.1 lists some of the main items of equipment required in addition to the questionnaires, cluster control sheets and maps.

**Table 5.1**  
**Sample List of Equipment for Fieldwork**

Notebooks for the supervisors/editors	Geographic Positioning System (GPS) units
Clipboards	Weighing scales and accessories
Backpacks or other types of bags	Length/height boards
Pens (blue for interviewers, red for editors and supervisors)	Salt iodization testing kits
Bags for filing questionnaires	Calendar of events (to aid in respondent recall)
Envelopes for filing control sheets and maps	Display set of vitamin A capsules (recall aid)
Paper clips, staplers, staples	Display set of antimalarials (recall aid)
Sleeping and cooking equipment (if necessary)	Display of insecticide-treated mosquito nets
	Literacy test cards
	Flashlights

**IMPORTANT:** *In addition to this equipment, fieldworkers should also carry letters of introduction to the households, preferably on official letterhead, and identification cards with their photograph.*

### WEIGHING SCALES

Each team will have one scale and the editor will be responsible for weighing children. Extra scales should be ordered in case of breakdown, loss or theft.

Technical details of the recommended scales are provided in Appendix Five. The UNICEF electronic scale is a floor scale for weighing children as well as adults (capacity 150 kilograms). It has a precision of 100 grams and a digital display. The child should be weighed directly, if possible. Alternatively, if the child is very small or is frightened or upset, the mother can first be weighed alone and then weighed while holding the child in her arms, and the scale will automatically compute the child's weight by subtraction. Unlike hanging scales, there is no stress to the child and there are no trousers to wash. No calibration is required. The scale itself weighs 4 kilograms and is powered by a battery with a 10-year lifespan.

### LENGTH/HEIGHT BOARDS

In addition to weight, the MICS3 recommends that length or height also be measured. Since children under 2 years of age will be measured lying down (length) and older children will be

measured standing up (height), measuring boards should be adaptable to both situations. As with scales, one measuring board per team is required.

UNICEF recommends a model made out of wood that can accommodate children up to 130 centimetres, which is appropriate for the purposes of MICS3. The board weighs 6 kilograms, measures 75 centimetres when collapsed and comes with a shoulder strap. Technical details on the length/height boards are provided in Appendix Five. In the past, some countries have attempted to manufacture locally produced equipment, and in many cases, this has resulted in problems in measurements and durability. If locally produced, these boards will cost less, but you should allocate plenty of time to this process since several adjustments in the early prototypes may be required.

### **SALT IODIZATION TESTING KITS**

Each interviewer should carry a salt iodization test kit. Each kit is sufficient for testing at least 100 samples of salt. Test kits for potassium iodate will be required for most countries, although in a few countries test kits for potassium *iodide* will be needed – ensure that the correct test kits are used. In order to standardize the results of all MICS3 surveys, it is recommended that all countries use the same test kit, manufactured by MBI in India. Other test kits may be used in addition, but these should not replace the MBI kits.

### **GEOGRAPHIC POSITIONING SYSTEMS (GPS)**

Countries may also want to use Geographic Positioning System (GPS) units during fieldwork to record information on the exact geographic location of the sample cluster. This will make it possible after the survey to link MICS3 data with other data sets containing similar geographic information. Typical examples would be to use databases that include geographic location information on health facilities, schools, climate, altitude or many other geographically located attributes. With the use of GPS, it becomes possible to carry out further analyses of MICS3 data sets by expanding them with information available from other databases.

GPS units may also be used to update the sample frame. As discussed in Chapter 4, listing teams may have used GPS units to record information on the geographic location of the clusters in the sample. In such cases, using GPS during the main fieldwork may facilitate locating the clusters, since information on longitude and latitude will be available to supervisors during fieldwork. It is recommended that one GPS unit be used per team, and one measurement be undertaken per cluster. Technical details are provided on GPS units at [www.childinfo.org](http://www.childinfo.org).

## TRAINING THE FIELDWORKERS

Collecting high-quality data will only be possible if enough time is allowed to train the supervisors, editors and interviewers thoroughly.

Training should be planned ahead of time.

Before you train the interviewers, you should:

- Translate and pre-test the questionnaires, instructions for filling in the questionnaire and the field procedures for the survey. This means planning for supervisors and editors to check completed questionnaires, fill out daily Cluster Control Sheets on the completed questionnaires, return them to headquarters, make transportation arrangements for teams, and make payments to fieldworkers.
- Identify typical field locations for practising household selection and interviews.
- Become comfortable with the questionnaire, including the skips and the purpose of the questions. If the trainers are not comfortable with the questionnaire, the interviewers will pick up on this and doubt the quality of the survey. Similarly, if the trainers question the effectiveness, or use, of some questions during the training, the interviewers will doubt the instrument and will not be motivated to collect the data correctly. All trainers must be comfortable and thoroughly familiar with the questionnaire before the start of the training.

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**Decide which interviewers, editors and supervisors are qualified to go on and dismiss those who cannot perform the tasks adequately.**

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Training should be provided by senior survey staff. At least two trainers will be necessary for each classroom to be able to conduct practice sessions. It is recommended that a separate trainer – who is a seasoned professional in that area with experience in the field – be used for training in anthropometry. In addition, it is often helpful to organize lectures by authorities in the various fields covered in the questionnaires, such as education, maternal and child health, child protection, HIV/AIDS, etc.

UNICEF recommends that fieldwork training be carried out in a central location, preferably with a relatively small group of interviewers, and, if possible, in a single classroom. The likelihood of following these guidelines will undoubtedly depend on a number of factors, including the total number of trainees, the size of the country, etc. However, the main goal for survey administrators should be to ensure that all trainees receive identical training. This is very difficult to accomplish if training is carried out by different trainers in different locations. In cases when different training locations are necessary, it is important to make sure that training is provided either by the same trainers (who could rotate between training locations), or that, before trainers start training in different locations, the differences between them is minimized as much as possible. It is important that the size of training classes be kept as small as possible, so that trainers are able to get to know the trainees, to work with them on an individual basis, and provide extra training

if necessary. As indicated earlier, the number of trainees should be more than will eventually be needed for fieldwork, to make sure that those trainees who will not be able to produce good quality work are eliminated before the actual fieldwork starts. In addition to prospective supervisors, editors and interviewers, trainees should also include those who will later be entering the data. It is important that data-entry clerks know the questionnaires well, since they will be dealing with problems in the questionnaires during the later, data-entry stage.

The length of training will depend on the content of the questionnaire, as well as the complexity of field procedures and the characteristics of the field staff. A longer, complicated questionnaire will require longer training. Based on lessons learned from previous rounds of MICS, as well as the pre-test of model questionnaires for the current round, UNICEF recommends that training be carried out for 2 to 3 weeks, depending on the content of the questionnaire. Table 5.2 provides an example of a 12-day training course for interviewers, supervisors and editors. Supervisors and editors will also need additional training (Table 5.3). Training should not exceed 8 hours per day, at the end of which trainers should meet to evaluate the day.

Training should be carried out in a good working atmosphere, so that interviewers are motivated to perform well in the field. Be sure that adequate space is available in the classroom(s), and that beverages and snacks are provided.

Below are some simple guidelines in conducting the training sessions:

- It is very important that training and practice sessions are conducted in a participatory fashion. Trainers should encourage trainees to ask questions and make sure that everything is clear and understood before the actual fieldwork starts. In addition, trainers should ask questions of trainees, ask them to read the questionnaires aloud, and practise the administration of questionnaires as much as possible.
- In regard to practice in the classroom, there are several ways of ensuring that trainees get experience in asking the questions: these include demonstration interviews, front-of-class interviews and mock interviews. Additionally, real respondents might be brought into the classroom for practice, and/or interviewers may be taken to households in the vicinity of the training venue to ask questions of real respondents, even before the main pilot study begins.
- It is best to schedule practices for the latter part of the day.
- Use audio-visual aids, such as overhead projection, during the training.
- Inviting a high-level official to open and close the training course can help ensure that trainees believe in the seriousness of the survey and conduct themselves in a responsible manner.
- One of the ways to motivate trainees is by issuing certificates showing course completion.
- In addition to practice sessions in the classroom and in households, trainees may be given homework assignments, including readings, and they can be asked to complete interviews at night, perhaps with other family members, relatives and neighbours.

In cases when some of the trainees are those who have already worked in the pre-test, they could be used to assist with practice in the classroom, and can be involved in editing questionnaires filled in during the training.

Training should include both observational and written tests at various points during the process. This is necessary to understand general difficulties and to identify elements of the survey tools that require revision and more emphasis. The objective of the tests should not be to ask difficult questions to the trainees; rather, easy questions should be asked, perhaps sometimes with intentional errors, to test how alert and motivated trainees are.

By the end of the training course, trainers should be able to develop profiles of the capacities of each trainee on an individual basis, and take decisions about the best roles they could be playing in the fieldwork. This involves the observation of trainees' relationships to each other, which might provide clues on their leadership qualities, on whether they can easily build rapport with respondents, and whether they are careful in editing and spotting mistakes. By the end of the training course, you should be able to decide on those who would be the best individuals to supervise teams, edit questionnaires, or conduct interviews.

**Table 5.2**  
**Example of a 9-Day Training Course for Fieldwork Staff**

Day 1	<p><b>Explain thoroughly the purpose of the survey and introduce survey instruments.</b></p> <ul style="list-style-type: none"> <li>• Arrange an opening ceremony and invite a high-level official from the implementing agency to deliver a speech on the importance of the survey.</li> <li>• Introduce all team members and participants from the implementing institutions (national statistics office, ministry of health, etc.) and other organizations.</li> <li>• Provide a framework for the survey and describe indicators.</li> <li>• Outline the whole survey procedure including reporting and analysis.</li> <li>• Motivate fieldworkers by explaining the importance of the data to be collected and what will be done with it.</li> <li>• Explain the administrative arrangements for the work.</li> <li>• Give details of the working hours and pay, the survey schedule, transportation arrangements and everyday procedures.</li> <li>• Provide a general overview of the survey instruments, including a description of the modules included.</li> </ul>
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**Table 5.2 (continued)**

Days 2–8	<p><b>Discuss the survey procedures and questionnaire.</b></p> <ul style="list-style-type: none"> <li>• Discuss interviewing techniques. Explain how to gain the confidence of the respondent, how to avoid inducing answers, and the importance of completing each assigned interview and of following standard procedures. Emphasize that the interviewers must ask the questions <i>exactly</i> as they are worded on the questionnaire. Discuss ethical issues.</li> <li>• Discuss the general structure of the questionnaires, explaining eligibility issues.</li> <li>• Conduct a module-by-module discussion of the questionnaire.</li> <li>• Explain and discuss each question. There should be no unfamiliar terms. Give each fieldworker written instructions to take to the field.</li> <li>• Do demonstration interviews.</li> <li>• Organize lectures to be delivered by professionals specializing in relevant topics.</li> <li>• Have role-playing interviews, where trainees interview each other. Use questionnaires completed in the pre-test as examples.</li> <li>• Conduct a general training on anthropometric techniques. Spend at least half a day in a place with many small children (day-care centre or nursery).</li> <li>• Introduce and train fieldworkers to perform salt tests.</li> <li>• Introduce and train fieldworkers on visual-aid materials.</li> <li>• Practise recording data and managing forms.</li> <li>• If the sexual behaviour module or other modules including sensitive questions are included in the survey, be sure to role play these questions so interviewers get over any initial uneasiness about discussing sexual matters.</li> <li>• Videotape the practice sessions if possible, and provide constructive criticism of the different interviewers. Hold more demonstration interviews as the training proceeds.</li> <li>• Conduct brief written exams to test the interviewers' understanding of the questionnaire. This can also help you filter out interviewers who did not comprehend the training.</li> <li>• Give out homework. Ask the interviewers to read the next day's topics from their manuals, and/or go through the modules that will be covered. Ask interviewers to complete interviews with their families, relatives, neighbours. Have the trainees edit each other's questionnaires and spot errors.</li> </ul>
Days 9–12	<p><b>Conduct a field exercise and have further discussion of interviewing.</b></p> <ul style="list-style-type: none"> <li>• Practise reading maps.</li> <li>• Discuss how to handle empty buildings and refusals.</li> <li>• Organize practice in the field. Each trainee should complete at least five practice interviews in the field. Observe all the interviewers' practice sessions and provide them with feedback.</li> <li>• Discuss the problem of the interviewer influencing the respondents' answers and other interviewer mistakes. Agree upon solutions to these problems.</li> <li>• Go over field practice questionnaires with individuals who have particular problems, and discuss problems as a group.</li> <li>• Ask the participants to share their ideas and suggestions for dealing with difficulties.</li> </ul>

**Table 5.3**  
**Example of a 3-Day Additional Training Course for Supervisors and Editors**

Day 1	<b>Household selection and map reading</b> <ul style="list-style-type: none"> <li>• Explain the procedures to be followed and the importance of random selection of households.</li> <li>• Provide practice and time for discussion.</li> <li>• (If sketch-mapping will be used for segmentation of small areas, as described in Chapter 6, then provide at least 2 additional days for training in the field.)</li> <li>• Introduce and practise the roles of supervisors and editors.</li> </ul>
Day 2	<b>Quality control</b> <ul style="list-style-type: none"> <li>• Explain the need to monitor interviews and check interview quality on the spot.</li> <li>• Discuss how to deal with interviewer errors.</li> <li>• Explain what to do with the completed questionnaires and how to deal with unanticipated problems.</li> <li>• Emphasize that the supervisor should keep field notes and go through what should be recorded in these notes.</li> <li>• Discuss the survey schedule and the need for liaising with the survey coordinator.</li> </ul>
Day 3	<b>Anthropometric training</b> <ul style="list-style-type: none"> <li>• Standardize anthropometric procedures.</li> <li>• Proceed with the selection of supervisors and editors.</li> </ul>

### **BRIEFING THE DRIVERS**

All persons involved in the survey should be briefed about its purposes and the main methodological guidelines. Drivers who will work with the team throughout the whole survey are a group in need of special attention. Drivers often fail to understand random sampling and may even refuse to take secondary roads or paths to reach scattered households. This preference for certain roads is known as ‘main road bias’. Another common problem occurs when drivers interfere in the interviews. Since all interviews are confidential, drivers should not be within hearing distance of any interview and should not read completed interviews stored in the vehicle. A special session at the beginning of the fieldwork may help prevent these problems.

### **CARRYING OUT THE PILOT STUDY**

The pilot study is the final rehearsal for the fieldwork. It is used to test that all procedures work smoothly and that all protocols are understood and followed. The pilot study should be carried out at the end of the training period, but at least a few days before beginning the

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**A properly conducted pilot study will identify major problems with the survey methodology and help prevent them during the data-collection phase.**

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actual fieldwork. This will allow time for correcting any problems detected during the pilot study.

The pilot study should cover both urban and rural areas. These areas should be selected to be representative of the situations the interviewers might face during the survey. The pilot study should last for 3 to 5 days, depending on the results of the exercise for interviewers, supervisors and editors, and include the daily routine shown in Table 5.4.

**Table 5.4**  
**Daily Routine for the Pilot Study**

- Briefing at headquarters
- Transporting the team to the field sites
- Locating clusters
- Contacting local authorities and introducing yourself
- Identifying selected households
- Interviewing and measuring
- Editing and compiling questionnaires
- Evaluating the results and providing feedback to the survey team, including re-training or additional training, as needed.

The pilot study should be seen as an extension of the training programme. *Close supervision of the interviewers during this phase is essential.*



## SETTING UP COMPUTERS AND HIRING DATA PROCESSING STAFF

You must obtain the services of a computer programmer with experience in using the software packages you will use. If you do not already have the recommended data-entry software (CSPPro) and the statistical analysis package (SPSS), you need to obtain these immediately. Information on the software is provided in Chapter 7.

Your computer programmer will need to adapt the MICS3 standard model programs for entering, cleaning and tabulating the collected data. Training on the adaptation of the model programs will have been provided through workshops. Nevertheless, the survey coordinator will need to work closely with the computer programmer to ensure that the data entry, editing and tabulation programs produce the needed data sets and the correct tabulations for each indicator. Before the main survey begins, make sure that the programs have been properly tested and are functional.

**IMPORTANT:** *Use the questionnaires of the pilot study for testing the data-entry and analysis programs. Check the programs for the production of tables. Sort out any problems and make any corrections that may be necessary.*

You will also need data-entry staff. Depending on the size of your survey and the duration of fieldwork, a number of data-entry clerks will have to be recruited and trained by the computer programmer in using the data-entry software. (See Chapter 7 to calculate the number of data-entry clerks needed.) The training for data entry should require no more than 2 days. However, it is important that data-entry staff are trained during the main training session, together with the interviewers, so that they understand the purpose of the survey and the content of the questionnaires.

Arrange for the necessary office equipment, including computers, printers, CD-ROMs/diskettes and paper, and make sure that the power supply is adequate. One computer will be needed for each data-entry clerk, plus one for the computer programmer. Chapter 7 (Processing the Data) contains further suggestions on how to manage the data processing and organize record-keeping.

*Remember – unless all arrangements for data entry and analysis are made before starting the fieldwork, this process can lead to major delays in producing survey results.*

In addition to data-entry staff, you will need staff to edit questionnaires and to provide consistent responses to the problems in the questionnaires identified in the office – either by the computer or when verifying materials manually. These persons can be selected during the main training of supervisors and editors or trained separately during the data-processing training.

## MAKING ARRANGEMENTS FOR RETURNING THE QUESTIONNAIRES TO HEADQUARTERS

Instruct supervisors and editors on the procedure for returning completed questionnaires to the data processing headquarters. Remember that the questionnaires contain confidential data and should be handled appropriately.

Completed clusters of questionnaires should be returned weekly so that data can be processed quickly. In the early stages of the survey, this will also enable you to check for any systematic problems that may still be occurring in the field. When simultaneous data entry is in place, errors can be identified and feedback can be provided to fieldworkers, permitting the early identification of systematic errors that can compromise the quality of the survey. Supervisors should arrange for completed clusters of questionnaires to be delivered back to the survey headquarters on a weekly basis. This can be done by a roving team that picks up clusters of questionnaires or by having the drivers deliver them.

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**The prompt return of the questionnaires to headquarters contributes to quality control, allows for early data entry and feedback to fieldworkers.**

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Back-up copies of computer files should be made daily and kept in a secure location where only survey staff have access to them.

## PLANNING EARLY TO OBTAIN SUPPLEMENTARY INFORMATION

Field staff can be valuable informants because they become familiar with conditions in communities. They may obtain insights about how programmes are operating, the reasons why a programme is not working, or the problems experienced by fieldworkers during data collection. If possible, make the most of this opportunity to obtain qualitative as well as quantitative data from your field staff by conducting focus group discussions after the survey finishes. Health and development programme staff may have a particular interest in what these field staff observe. Enlist the help of such interested parties and prepare a discussion guide. Write a short report of these discussions, and include any pertinent observations in your survey report.

## ETHICAL CONSIDERATIONS

Household surveys typically raise a number of ethical questions, particularly surveys that pertain to the health of children and other household members. Such questions relate to individual rights to privacy, the need for informed consent, and responsibilities that arise upon uncovering potential health problems in a survey. It is important to consider such dictums as those enumerated in Table 5.5 during the early stages of planning a survey.

**Table 5.5**  
**Ethical Aspects of Conducting a Survey**

**Ethical approval:** The survey must abide by the laws of the country. If approval by an ethical review committee is required, this should be requested at an early stage to prevent delays.

**Confidentiality:** All information provided to the interviewers should be kept strictly confidential. Records should be securely stored. Computerized records should not include any names that might be used to identify the families, unless this is strictly necessary (for example, if follow-up visits are planned).

**Informed consent:** Mothers and/or all other respondents should be informed about the contents of the interviews and measurements to be carried out. They must understand the procedures and give their full approval. In some countries, written consent may be required.

**Feedback to the families:** Families have freely donated their time to the survey and are entitled to some feedback. Any important conditions discovered during the interview should be reported to the parents. For example, mothers should be advised when their children's vaccinations are overdue, when the child is malnourished, or when non-iodized salt is being used. In some countries, fieldworkers carry packets of oral rehydration salts or plastic spoons for preparing sugar-salt solutions to distribute to children with diarrhoea who are not being treated properly.

**Feedback to communities:** Before starting the survey, the coordinators should plan what type of feedback will be given to communities. In most cases, the number of interviews per community will be too small for statistical validity, but even some general feedback is often appreciated by local authorities (for example, that 30 of the 40 children in the village had not been vaccinated). If possible, this type of feedback should be given before the team departs for a new community.

## CHAPTER 6

# CONDUCTING THE FIELDWORK

*This chapter should be read by sampling specialists and other technical resource persons, along with survey coordinators. Supervisors and interviewers should read the sections that are relevant to them. The chapter will explain:*

- How to map, segment and list households
- What interviewers should do in the field
- What field supervisors and editors should do in the field.

This chapter describes the main activities to be carried out when conducting the MICS3 fieldwork. This includes activities for updating the sample by listing staff and those related to data collection by interviewers, field editors and field supervisors. The instructions on how to map, segment and list households are included here as a continuation of the decisions taken in Chapter 4 on the design and sample selected. Additional instructions for interviewers, editors and supervisors can be found in the Instructions to Interviewers (Appendix Three) and Instructions to Supervisors and Editors (Appendix Four).

### HOW TO MAP, SEGMENT AND LIST HOUSEHOLDS

In Chapter 4 you were shown various sampling options for the design of your survey. Two of those options involve segmentation in the field as a key operational step. Segmentation has to be carried out in many primary sampling units (PSUs), however they are defined (some may be census enumeration areas, for example), prior to the selection of the households for the survey. Recall that under Option 2, the households within each selected segment must be *listed and then sub-sampled* for interview, whereas in Option 3, *all* the households in each selected segment are included in the sample. We now give detailed guidelines on how to map and segment your PSUs.

In this chapter, the following definitions are used:

- A *household* is a group of persons who eat and live together.
- A *dwelling* is a building or residential unit. It may include one or more households, as in the case of compounds or apartment buildings.

Sample updating activities need to be implemented well in advance and before data collection by trained listing teams, each consisting of two enumerators. A field coordinator will monitor the entire operation.

The responsibilities of the *coordinator* are:

- Obtain the basic materials and identification for all the PSUs included in the MICS3 sample.
- Arrange for the reproduction of all listing materials (listing manual, mapping and listing forms).
- Assign teams to PSUs.
- Obtain travel allowances for the teams.
- Arrange for transportation of the teams to the field.
- Monitor the receipt of the completed listing forms at the central office.
- Verify that the quality of work is acceptable.

The responsibilities of the *enumerators* are:

- Contact local officials in each PSU/segment to inform them about the listing operation and to obtain their cooperation.
- Identify the boundaries of the PSU/segment.
- Draw a map showing the location of the PSU/segment.
- Draw a detailed sketch map of the segment.
- List all the households in the segment in a systematic manner.
- Communicate to the coordinator any problems encountered in the field and follow his/her instructions.

### CREATING SEGMENTS – SAMPLE OPTIONS 2 AND 3

Follow the steps below for each PSU selected:

**Step 1: Ascertain the number of segments to be created.** The number of segments is pre-specified in the sample selection by the sampling staff, and in that regard the coordinator should be told how many segments to create by the sampler.

Under Sample Option 2, the number of segments was determined at the first stage of selection by dividing the total number of *persons* in the PSU by the number of people in a *standard* segment, usually 500, rounding to the nearest whole number. Note that for a large number, perhaps a majority of PSUs, the number of segments under this option will be equal to one – in such cases, *no segmentation will be necessary*. Only when the number of segments is two or greater must mapping and segmentation be carried out.

Under Sample Option 3, the number of segments, again, has already been predetermined by the sampling staff at the first stage of selection, though computed differently than under Option 2. In Option 3, the number of segments is calculated by dividing the total number of *households* in the PSU by the desired cluster size, and rounding the result to the nearest whole number. Table 6.1 gives an illustration of the number of segments that the sampling staff would create for Sample Option 3 in a given PSU when the desired cluster size is equal to 20 households.

**EXAMPLE (SAMPLE OPTION 3):**

Suppose the frame (for example, the last population census) recorded 115 households in the PSU and the average cluster size is to be 20 households. Dividing 115 by 20 gives 5.75. Rounding it to the nearest whole number gives 6. *Exactly* 6 segments are to be created in this PSU, even if the *current number* of households is quite different from the original 115. Using Table 6.1 would give the same result by looking up the number of households (115) in the table and reading off the number of segments (6).

**Table 6.1**  
**Determining the Number of Segments to Create in a Given PSU**  
**(Cluster Size = 20 Households) – Sample Option 3**

<i>Number of Households</i>	<i>Number of Segments</i>
1-29.....	1
30-49.....	2
50-69.....	3
70-89.....	4
90-109.....	5
110-129.....	6
130-149.....	7
150-169.....	8
170-189.....	9
190-209.....	10
<i>Etc.</i>	

In some cases, the PSU may be too large, in terms of population, for easy segmentation and mapping. You may divide the PSU first into, say, four quadrants with approximately the same area and then select one of the quadrants at random before carrying out the segmentation in the sampled quadrant. In such cases, the sampling staff should be consulted. In our example, the sampler would then divide the frame count of the number of households in the PSU by four and recalculate the number of segments to create in the chosen quadrant. A note must be made of these special cases so that the correct survey probabilities and weights can be calculated later at the estimation and analysis stage.

**EXAMPLE (SAMPLE OPTION 3):**

With a cluster size of 20 households, a PSU with 560 households would result in  $560/20$ , or 28, segments – too large a number for efficient segmentation. Instead, the PSU may be divided into four quadrants of about 140 households each. One quadrant would be chosen at random and, according to Table 6.1, seven segments would be created in the chosen quadrant.

**NOTE:** Steps 2 through 7 apply (a) only to those PSUs in Sample Option 2 that require segmentation and (b) to all PSUs in Sample Option 3. Go to Step 9 for those PSUs in Sample Option 2 that **do not require** segmentation.

**Step 2: To prepare the sketch map, go to the field with the available boundary map and locate the outer boundaries of the PSU.** If a map is not available, get help from a local person and draw a map marking these boundaries, identifying the names of roads, lanes and streets and showing physical boundaries such as streams, rivers and so forth (use standard symbols suggested for mapping).

**Step 3: Draw internal markers** that will help identify locations and aid in establishing a path of travel. These markers include internal streets, paths, streams and so forth (use standard symbols suggested for mapping).

**Step 4: Draw a small square representing each dwelling unit in its appropriate location on the map.** For help in later locating the households, it is also useful to mark other prominent buildings – schools, churches, mosques and so forth (use standard symbols suggested for mapping).

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**For purposes of making the segments, absolute precision in the count of households is not necessary. A quick count of dwellings can be used instead of counting households.**

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Note that the sketching should be a quick count operation for locating dwellings, which does not require knocking on doors to inquire about households or the names of occupants. An exception is multi-dwelling buildings that appear to include several households – for example, in the case of large compounds or apartment buildings, where you should ask about the number of households and record it on your map.

**Step 5: Count the number of dwellings in the PSU** and divide it by the number of segments that have been specified by the sampling staff (step 1, above), whether Sample Option 2 or 3. This will give you the approximate number of households that each segment should contain.

**Step 6: Based on the sketch map, divide the PSU into the pre-specified number of segments with roughly the same number of dwellings.** This means that the size of the segments in terms of geographic area may vary considerably – densely populated areas will have geographically small segments and low-density segments will be large. Assign each segment a number.

**EXAMPLE:**

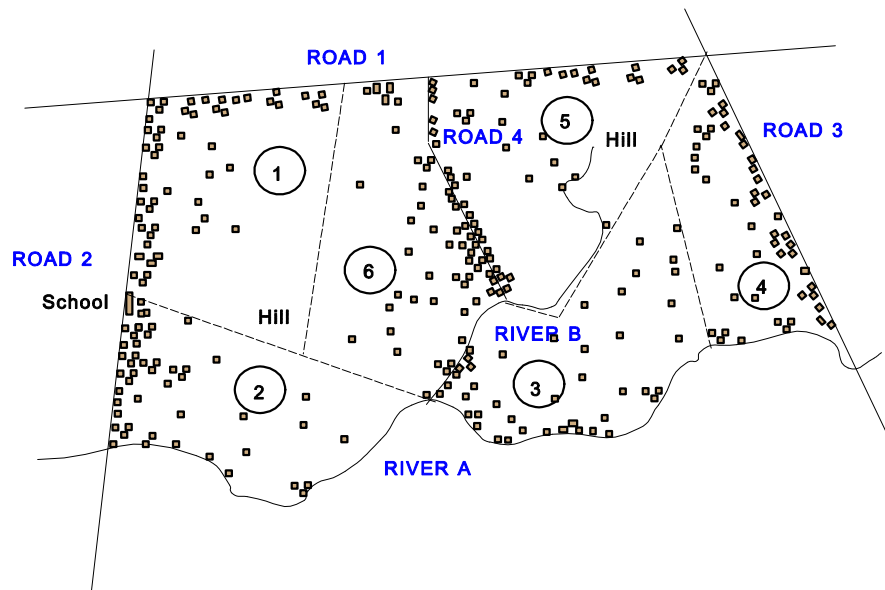
The pre-specified number of segments is six and, after mapping, your PSU was found to contain 241 dwellings. You should then divide it into six segments of about 40 dwellings each.

It is essential to create segments in such a way that segment boundaries can be easily identified. *You may have to relax the criterion of equal-sized segments in order to achieve this.* The

segment will be visited later, perhaps by some other field worker, so the boundaries must be readily identifiable on the sketch map and on the ground.

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**Table 6.2**  
**Sample PSU and Segments**



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**Step 7: After segmentation has been completed, the next step is to select one and only one segment at random in each of the PSUs.** Using a random number table, choose a random number between one and the number of segments created in the PSU to identify which segment is to be selected.

**EXAMPLE:**

If the PSU has been divided into six segments, using a random numbers table choose a random number between one and six to determine which is selected. Do this independently for each sample PSU.

If possible, the person selecting the segment should not be the same person who created the segmentation in the first place, in order to prevent the possibility of inadvertent bias.



**Table 6.3**  
**Using Segmentation in Urban Areas**

Segmenting urban areas is easier than segmenting rural areas. Cities and towns are usually organized into blocks or some similar units. When using census enumeration areas, maps are usually available showing streets and blocks. If unavailable, these maps can be easily drawn. A quick drive through the area will let you find out whether the number of dwellings appears to be about the same in every block. If so, the segmentation may be based on the blocks or parts of the blocks.

**EXAMPLE:**

Let us suppose that your urban PSU, say a census tract, includes 18 very similar blocks and that you require 7 segments. Divide 18 by 7 to obtain 2.6 blocks per segment. Using the map, divide the area into 7 segments with 2.5 blocks each (the last will have to include 3 blocks to complete 18).

If the number of dwellings in the blocks varies, proceed as for the rural areas, counting the total number of dwellings in the area and later dividing them into the required number of segments.

When sketch mapping rural areas you do not have to worry about separating dwellings from households. However, in urban areas, you should ask how many households are present in tall buildings (for example, those with more than two floors).

**IMPORTANT:** *Step 8 applies to Sample Option 3 only.*

**Step 8: Interview all households** in the selected segment. Note that the number of households is likely to be different from the desired cluster size because of population changes since the frame was constructed. It is essential to interview all the households no matter what the original, desired cluster size is.

**EXAMPLE**

If the desired cluster size is 20 households and the selected segment in a given PSU contains 27 households, all 27 households must be included in the sample for interview. Likewise, if the selected segment is found to contain fewer than the desired 20, say 15 households, then those 15 would be interviewed.

**IMPORTANT:** *Steps 9 to 11 apply in Sample Option 2 to all selected segments, including those in segmented and non-segmented PSUs.*

**Step 9: Make a new listing of the households in the sample segment.** Include in the listing the address or other information that will pinpoint its location, the name of the head of the household, and the number of household members. This step may be carried out by the supervisor or an interviewer.

**Step 10: From the listing, apply the sample interval and the random start that has been set already by the sampling staff.** This will be done back in the office. Then select the sample households accordingly (that is, systematically) until the end of the list is reached. Note that the number of households selected into the sample, in a given segment, may differ from the *expected* number because of population changes that may have occurred since the frame was constructed and because sampled segments will differ somewhat in size (even without population change). *It is essential, however, to use the within-segment selection rate that was determined on the basis of the census measure of size rather than the current measure.*

**Step 11: Make a list of sample households** to give to the survey interviewer. Include in the list the information obtained from the listing operation described in step 9. Mark the sampled households on the segment map to help the interviewer locate them.

## FIELD PROCEDURES FOR DATA COLLECTION

At the country level, field supervisors and field editors have important roles in MICS3. They are the primary links between the field coordinator and the interviewers. As such, they are responsible for ensuring both the progress and the quality of fieldwork.

This section provides the information needed by interviewers, field supervisors and field editors to carry out their duties. Candidates for the positions of interviewers, field supervisors and field editors for MICS3 should read this chapter carefully during their training. They should also study the Instructions for Interviewers (in Appendix Three) and Instructions for Supervisors and Editors (in Appendix Four), since it is necessary to thoroughly understand the questionnaire and the procedures for completing it. Individuals selected to serve as field supervisors and editors should continue to refer to this chapter throughout the fieldwork period.

### INTERVIEWER RESPONSIBILITIES IN THE FIELD

The daily routine of the interviewer should include the following:

- Read the PSU (or segment) map and locate the segment.
- Follow the map boundaries closely to locate the households to interview in the segment:
  - (i) Sample Option 3 – locate and interview all the households inside the segment boundary.
  - (ii) Sample Option 2 – locate and interview only those households designated for the sample.
- Fill in a new Interviewer's Control Sheet (see Appendix Four) for each PSU (sample segment).
- Locate the household to be interviewed.
- Introduce yourself to household members and ask permission to carry out the interview.

- Apply the questionnaires to *all eligible members in the household*.
- Fill in the responses to the questionnaire in a neat and legible way.
- When in doubt about the coding of an answer, write it down in full at the margin of the questionnaire and check the correct coding with the supervisor at the end of the day.
- If applicable, carry out or assist in the additional procedures for data collection, including testing salt iodine and anthropometry.
- Check completed interviews to be sure that all questions were asked.
- Return to the household to interview women, mothers or caretakers not contacted during initial visits.

## CONDUCTING AN INTERVIEW

In this section you will find a number of general guidelines on how to build rapport with a respondent and conduct a successful interview.

### *Building Rapport with the Respondent*

The field supervisor will assign an interviewer to make the first contact with a household selected for MICS3. Any *knowledgeable adult member of the household* is a suitable respondent for the household interview (this person may or may not be a woman aged 15 to 49 years or a mother or caretaker). If, in the unlikely situation that the household is composed only of children (below age 15), the most capable child should be interviewed, but this should be brought to the attention of the editor and the supervisor. If one or more eligible women or children under five are identified in the Household Listing Form, the interviewer will complete individual questionnaires for every eligible woman and mother/caretaker identified. The first responsibility of an interviewer is to establish rapport with the respondent.

1. **Make a good first impression.** When first approaching the respondent, do your best to make her/him feel at ease. The introductory sentences at the beginning of each questionnaire should be read exactly as they are printed in the questionnaire.
2. **Always have a positive approach.** Never adopt an apologetic manner, and do not use phrases such as “Are you too busy?” Such questions invite refusal before you start. Rather, tell the respondent, “I would like to ask you a few questions” or “I would like to talk with you.”
3. **Stress confidentiality of responses.** Explain that the information you collect will remain confidential, that no individual names will be used for *any* purpose, and that all information collected will be grouped together to write a report.
4. **Answer any questions from the respondent frankly.** Before agreeing to be interviewed, the respondent may ask you some questions about the survey or how she/he was selected. The respondent may also be concerned about the length of the interview. If she/he asks, tell her/him the average duration of each of the

questionnaires, which will have been estimated during the pre-test and provided to you during your training. Indicate your willingness to return at another time if it is inconvenient for the respondent to answer questions then.

5. **Interview the respondent alone.** The presence of a third person during an interview can keep you from getting frank, honest answers from a respondent. It is, therefore, very important that the interviews be conducted *privately* and that all questions are answered by the respondent her/himself, especially for the woman's interview, which includes the most sensitive questions. If other people are present, explain to the respondent that some of the questions are private and ask where the best place is that you can talk with her alone. Sometimes asking for privacy will make others more curious, so they will want to listen; you will have to be creative in finding a solution. Establishing privacy from the beginning will allow the respondent to be more attentive to your questions.

### ***Tips for Conducting the Interview***

1. Be neutral throughout the interview.
2. Never suggest answers to the respondent.
3. Do not change the wording or sequence of questions.
4. Handle hesitant respondents tactfully.
5. Do not create expectations about assistance based on the responses.

## **FIELD PROCEDURES**

Fieldwork for MICS3 will proceed according to a timetable, and the survey will be successful only if each member of the interviewing team understands and follows correct field procedures.

### ***Preparatory Activities and Interviewer's Control Sheets***

Each morning your supervisor will brief you on your day's work and explain how to locate the households assigned to you. When your supervisor assigns households to you, you should write the identification information on the Interviewer's Cluster Control Sheet. The identifying information (household number, name of the head of the household) and your name and date of assignment will be written in Columns 1 and 2.

Columns 3 through 7 of the Interviewer's Cluster Control Sheet serve as a summary of the results of your work in the field for each household. At the end of the day, you will be responsible for recording in these columns the final outcome for all household visits and individual interviews you have conducted.

When you receive your work assignment, review it and ask any questions you might have. Remember that your supervisor and editor will not always be available to answer questions once the work begins. You should be sure that:

- Columns 1 and 2 of your Interviewer's Cluster Control Sheet are complete and that it contains all the information you will need to identify the selected households
- You have a Household Questionnaire for each household you are assigned
- You fill in the identification information on the cover page of each Household Questionnaire
- You know the location of the selected households you are to interview and have sufficient materials (maps, written directions, etc.) to locate them
- You understand any special instructions from your supervisor about contacting the households you are assigned
- You have several blank questionnaires for women and children under five.

After completing a household interview, you will allocate a Questionnaire for Individual Women and Questionnaire for Children Under Five for each eligible woman and child identified in the household. Fill in the identification information on the cover sheet of the appropriate questionnaire for each eligible woman and child identified in the Household Schedule.

### *Contacting Households*

Each country may have a specific method of numbering the structures and households so that each has a unique number within the selected cluster. The instructions here assume a sample design that includes the assignment of unique numbers on all structures within sampling units and a listing of households, identified by name of the head of household. Each household is then assigned a number and the sample of households selected. In countries where the sample is drawn on the basis of dwellings rather than households, the contact procedures will have to be modified.

You may have problems in locating the households that were selected, because the people may have moved or the listing teams may have made an error. Here are examples of problems you may encounter and how to solve them:

- **The selected household has moved away and the dwelling is vacant.** If a household has moved out of the dwelling where it was listed and no one is living in the dwelling, you should consider the dwelling vacant and circle '6' ('Other') in HH9 on the cover sheet of the Household Questionnaire and write in 'Dwelling vacant' in the space provided.
- **The household has moved away and a new household is now living in the same dwelling.** In this case, interview the new household.
- **The structure number and name of household head do not match with what you find in the field.** Say, for example, that you have been assigned a household headed by Sola Ogedengbe, who is listed as living in structure number 003. But when you go

to 003, the household living there is headed by Mary Kehinde. Consider whatever household is living in 003 as the selected household. You would interview the household headed by Mary Kehinde.

- **The household selected does not live in the structure that was listed.** If, for example, you are assigned a household headed by Vincent Okigbo, located in 007, and you find that Vincent Okigbo actually lives in another structure, interview the household living in 007. In other words, if there is a discrepancy between the structure number and the name of the household head, interview whoever is living in the structure assigned to you.
- **The listing shows only one household in the dwelling, but two households are living there now.** In this case, interview both households, and make a note on the cover page of the household that was not on the listing. Your supervisor will assign this household a number, which you should enter on the questionnaire. However, if the listing shows two households, only one of which was selected, and you find three households there now, only interview the one that had been selected and ignore the other two. In either case, inform your supervisor of the situation.
- **The head of the household has changed.** In some cases, the person who is listed as the household head may have moved away or died since the listing. Interview the household that is living there.
- **The house is all closed up and the neighbours say the people are on the farm (or away visiting, etc.) and will be back in several days or weeks.** Circle '2' ('Not at home') in HH9 on the cover sheet of the Household Questionnaire. The house should normally be revisited at least two more times to make sure that the household members have not returned.
- **The house is all closed up and the neighbours say that no one lives there; the household has moved away permanently.** Circle '6' ('Other') in HH9 on the cover sheet of the Household Questionnaire and complete 'Other specify' appropriately.
- **A household is supposed to live in a structure that, when visited, is found to be a shop and no one lives there.** Check very carefully to see if anyone is living there. If not, circle '6' ('Other') in HH9 on the cover sheet of the Household Questionnaire and complete 'Other specify' appropriately.
- **A selected structure is not found in the cluster, and residents tell you it was destroyed in a recent fire.** Circle '4' ('HH not found/destroyed') in question 9 on the cover sheet of the Household Questionnaire.
- **No one is home and neighbours tell you the family has gone to the market.** Circle '3' ('Not at home') in HH9 on the cover sheet of the Household Questionnaire and return to the household at a time when the family is likely to be back (later in the day or the next day).

### *Identifying Eligible Respondents*

To be 'eligible' means to 'qualify' for something. An eligible respondent is someone who is qualified to be included in the survey. You will use the Household Questionnaire to identify who is eligible to be interviewed for the Questionnaire for Individual Women and the Questionnaire for Children Under Five. All women aged 15 to 49 years and all children under 5 years of age who are members of the household are considered eligible in MICS3. It is very important that you do not miss an eligible respondent when you fill in the Household Listing Form.

The following are examples of the kinds of problems the interviewer may experience in obtaining an interview with an eligible woman (for the woman's questionnaire) or a mother or caretaker (for the under-five's questionnaire):

- **Eligible respondent not available.** If the eligible respondent is not at home when you visit, ask a family member or a neighbour when the respondent will return. You should contact the household at least three times, trying to make each visit at a different time of day. Under no circumstances is it acceptable to conduct all three visits on the same day and then stop trying to contact the respondent.
- **Respondent refuses to be interviewed.** The respondent's availability and willingness to be interviewed will depend in large part on the initial impression you make when you meet the respondent. Introduce yourself and explain the purpose of your visit. Read the introduction printed on the appropriate questionnaire. If the respondent is unwilling to be interviewed, it may be that the present time is inconvenient. Ask if another time would be more convenient and make an appointment.
- **Interview not completed.** A respondent may be called away during the interview or may not want to answer all the questions at the time of your visit. If an interview is incomplete for any reason, you should try to arrange an appointment to see the respondent again as soon as possible to obtain the missing information. Be sure that you record on the cover sheet of the questionnaire that the interview is incomplete and indicate the time you agreed upon to revisit the household; you should also report the problem to your editor or supervisor.
- **Respondent incapacitated.** There may be cases in which you cannot interview a respondent because the person is too sick, is mentally unable to understand your questions or because she/he is deaf, etc. In these cases, specify that the respondent is incapacitated on the cover sheet of the questionnaire (circle '5' in WM7 or UF9).

The outcome and date of the final attempt to contact an eligible respondent should be noted in Column 8 of your Interviewer's Cluster Control Sheet. It is important that you are consistently accurate in recording your visits, since this form provides a summary of all eligible respondents in the MICS3 sample. These forms will be returned to the central office for review following completion of interviewing.

### ***Making Call-backs***

Because each household has been carefully selected, you must make every effort to conduct interviews with the households assigned to you, and with the eligible respondents identified. Sometimes a household member will not be available at the time of your first visit. You need to make at least three separate visits when trying to obtain a household interview, and at least three separate visits when trying to obtain interviews with women or children under five.

At the beginning of each day, you should examine the cover sheets of your questionnaires to see if you made any appointments for revisiting a household or eligible respondent. If no appointments were made, make your call-backs to a household or respondent at a different time of day than the earlier visits: For example, if the initial visits were made in the early afternoon, you should try to arrange your schedule so you make a call-back in the morning or late afternoon. Scheduling call-backs at different times is important in reducing the rate of non-response (that is, the number of cases in which you fail to contact a household or complete an individual interview).

### ***Checking Completed Questionnaires***

It is the responsibility of the interviewer to review each questionnaire when the interview is finished. This review should be done before you leave the household so that you can be sure every appropriate question was asked, that all answers are clear and reasonable, and that your handwriting is legible. Also check that you have followed the skip instructions correctly. You can make minor corrections yourself, but the respondent should clarify any serious errors. Simply explain to the respondent that you made an error and ask the question again.

### ***Returning Work Assignments***

At the end of fieldwork each day, check that you have filled out the cover sheet of a Household Questionnaire for each household assigned to you, whether or not you managed to complete an interview. You should inform your supervisor about any problems you experienced locating a household, completing a Household Questionnaire, or conducting an interview with an eligible respondent. For difficult cases, at least three visits will be made to a household during MICS3 in an effort to obtain a completed interview.

Once you have completed all the interviews required for a sample household, the completed Household Questionnaire, with accompanying questionnaires for women and for children under five placed inside, must be returned to your supervisor. Make sure you have filled in on your Interviewer's Cluster Control Sheet the final result and date of all interviews you completed and the date you returned the questionnaires to your supervisor.



***Supplies Required for Fieldwork***

Before leaving for the field, interviewers should make sure they have adequate supplies for the day's work (including those described in Table 5.1). These supplies include:

- A sufficient supply of questionnaires
- Interviewer's Cluster Control Sheets
- Interviewer's Manual
- Identification documents
- A clipboard
- Blue ballpoint pens
- A briefcase or bag in which to carry the questionnaires
- Visual aids such as vitamin A tablets, literacy cards, etc. (see Table 5.1)
- Salt testing kits
- Any personal items you will need to be comfortable, given the circumstances and the area in which you are working.

**WHAT EACH FIELD SUPERVISOR AND EDITOR SHOULD DO**

Supervisors and editors will have many tasks during the survey. While a summary of the tasks is included here, a more complete description of the field supervisors' and editors' duties and responsibilities is included in Appendix Four: Instructions for Supervisors and Editors.

***Responsibilities of the Field Supervisor***

The field supervisor is the senior member of the field team. He/she is responsible for the well-being and safety of team members as well as the completion of the assigned workload and the maintenance of data quality. The field supervisor receives his/her assignments from, and reports to, the field coordinator. The specific responsibilities of the field supervisor are to prepare for the fieldwork, to organize and direct the fieldwork, and to spot check the data collected in the Household Questionnaire.

Preparing for fieldwork requires that the field supervisor:

- Obtain sample household lists and/or maps for each area in which his/her team will be working and discuss any special problems.
- Become familiar with the area where the team will be working and determine the best arrangements for travel and accommodations.
- Contact local authorities to inform them about the survey and to gain their support and cooperation.
- Obtain all monetary advances, supplies and equipment necessary for the team to complete its assigned interviews. Careful preparation by the supervisor is important

for facilitating the work of the team in the field, for maintaining interviewer morale, and for ensuring contact with the central office throughout the fieldwork.

Organizing fieldwork requires that the field supervisor:

- Assign work to interviewers, taking into account their linguistic competence, and ensure that there is an equitable distribution of the workload.
- Maintain fieldwork control sheets and make sure that assignments are carried out.
- Make spot checks of the Household Questionnaire by conducting household interviews.
- Regularly send completed questionnaires and progress reports to the field coordinator and keep headquarters informed of the team's location.
- Communicate any problems to the field coordinator.
- Take charge of the team vehicle(s), ensuring that it is kept in good repair and that it is used only for project work.
- Ensure that questionnaires are kept confidential and that interviewers do not discuss the results of the interviews among themselves or with others.
- Make an effort to develop a positive team spirit; a congenial work atmosphere, along with careful planning of field activities, contributes to the overall quality of a survey.

### ***Responsibilities of the Field Editor***

The specific duties of the field editor are to monitor interviewer performance and to carry out anthropometric measurements of children (see procedures for weighing and measuring in Appendix Five). Close monitoring of interviewers and editing of completed interviews is essential to assure that accurate and complete data are collected. This is especially important during the initial phases of fieldwork, when it is possible to eliminate interviewer error patterns before they become habit.

Monitoring interviewer performance requires that the field editor:

- Observe several interviews every day.
- Edit all completed questionnaires in the field – editing must be completed prior to leaving the sample area where the data was collected.
- Conduct regular review sessions with interviewers and advise them of any problems found in their questionnaires.
- Put completed questionnaires from a sample area in order and pack them up to be sent to the central office.

**Table 6.4**  
**Keeping Up the Morale of the Team**

Particularly after the first 2-3 weeks of fieldwork, it is important to keep the morale of the team high. Interviewing becomes routine and standards may be relaxed. Here are some suggestions for maintaining the team's spirits:

- If possible, avoid having fieldworkers away from their families for more than 2 consecutive weeks.
- Ensure that the fieldworkers understand exactly how much and when they will get paid and avoid any delays in paying them. Ensure that money for expenses (for example, meal allowances) is provided before costs are incurred.
- The fieldwork team should work together as a group at all times. Interviewers can carry out interviews in neighbouring houses in the same cluster, while the editor is in the cluster area as well, editing questionnaires or going to households to carry out anthropometric measurements as interviewers call and tell them that there are eligible children. The supervisor is preferably with the team at all times too, taking care of all logistic arrangements, observing interviews from time to time, editing questionnaires if necessary, especially in clusters where the editor is using most of her/his time measuring/weighing children. This increases the sense of security among the team, and it becomes possible to help each other make decisions about locating houses and so forth.
- Special attention must be paid to drivers. You should brief them and explain the need for random sampling and for reaching sample households that may be far away from good roads. They must also be instructed about the need to avoid interfering with the interviews. Otherwise, they may try to influence the sampling and interviewing procedure.
- Within the limitations imposed by the workload, interviewers should have time to rest at midday and at the end of each working day, as well as having at least 1 full day off per week. Otherwise, they will become excessively tired and this will affect the quality of their work.

## CHAPTER 7

# PROCESSING THE DATA

*This chapter is written for survey coordinators, data processing experts and technical resource persons. It provides information on how to:*

- Prepare for processing the data
- Set up a system for managing data processing
- Carry out data entry
- Edit the data and create a 'clean' data file for analysis
- Produce tabulations with the indicators
- Archive and distribute data

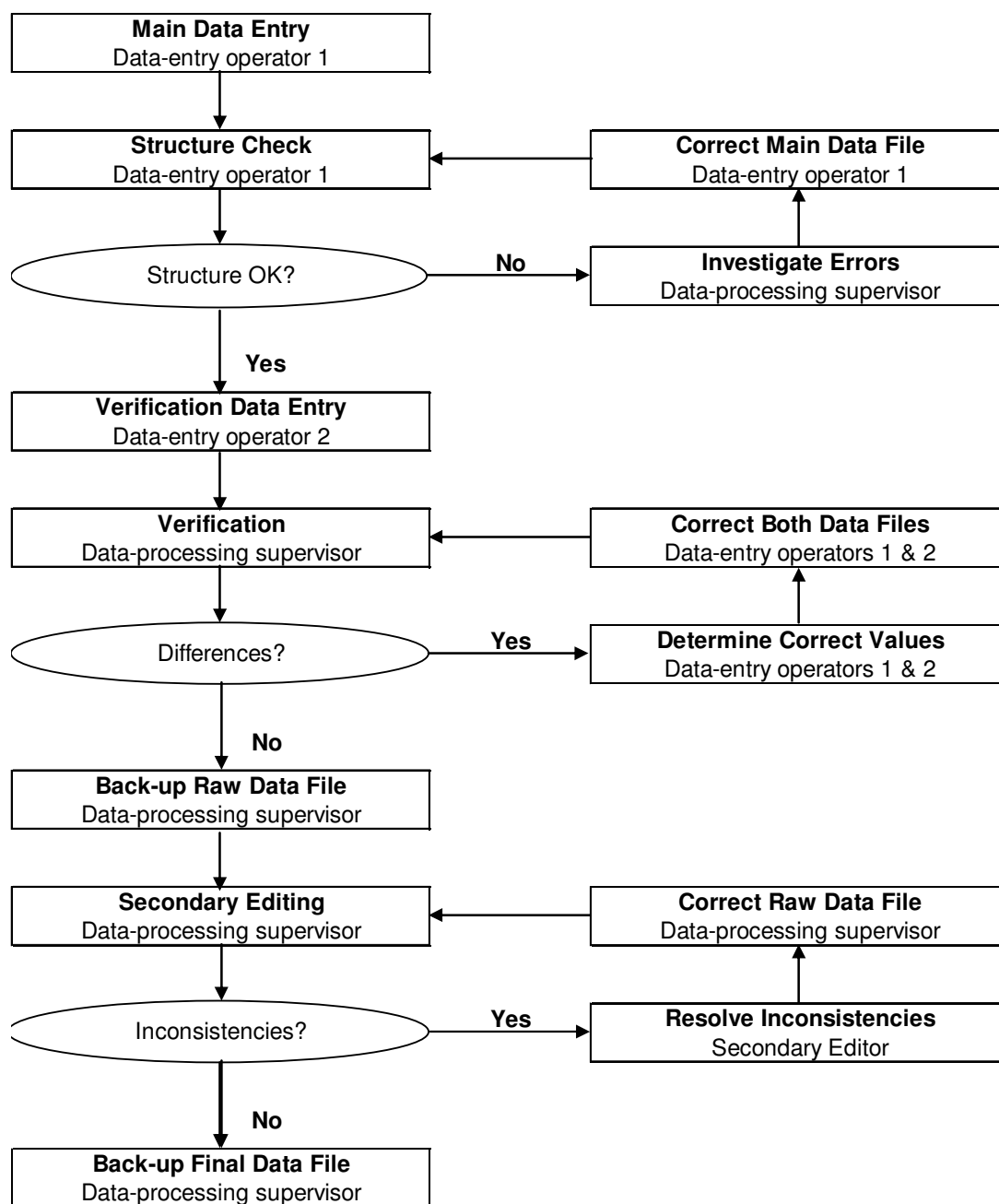
The MICS3 data-processing system is designed to deliver the first results of a survey within a few weeks after the end of fieldwork. This chapter contains information that will help you to undertake the planning and advance preparation that will make this goal a reality. The chapter begins by giving you an overview of the MICS3 data-processing system. It then discusses each of its components in detail, providing references to supplemental sources of information where appropriate. It closes with a set of three checklists that will help you make the processing of your survey data a success.

## OVERVIEW

The reason that the MICS3 data-processing system can achieve such rapid turnaround time is because data is processed in tandem with survey fieldwork. Data for each cluster is stored in a separate data file and is processed as soon as the questionnaires are returned from the field. This approach breaks data processing down into discrete segments and allows it to progress while fieldwork is ongoing. Thus, by the time the last questionnaires are finished and returned to headquarters, most of the data have already been processed.

Processing the data by clusters is not difficult, but it does require meticulous organization. The data-processing system can be divided into three phases: preparation, primary data processing and secondary data processing. Each of these phases is summarized in the sections that follow, and each has its own checklist at the end of the chapter.

**Table 7.1**  
**The MICS3 Data Processing System**



### **PREPARATION FOR DATA ENTRY**

The goal of preparing for the data-entry phase is to be ready to begin shortly after the fieldwork commences. The preparation phase involves the following steps:

- Obtaining computer equipment and setting up a data-processing room
- Identifying and recruiting appropriate personnel
- Adapting computer programs to the country-specific questionnaire
- Setting up a system for managing the questionnaires and data files.

### **PRIMARY DATA PROCESSING**

The goal of primary data processing is to produce clean, edited data files. Primary data processing involves the following steps:

- Entering all questionnaires for a cluster onto a data file
- Checking the structure of the data file
- Entering the data a second time and then verifying the data file
- Backing up the checked and verified data file
- Performing secondary editing on the data file
- Backing up the edited, or final, data file.

The flow of primary data processing is summarized in the flow chart on the previous page. Note carefully that structure checking, the verification of data entry and secondary editing are iterative procedures that are repeated until all problems are resolved or determined to be acceptable.

### **SECONDARY DATA PROCESSING**

The goal of secondary data processing is to produce analysis data files and to create the MICS3 standard tables. Secondary data processing involves the following steps:

- Concatenating all cluster data files into one data file
- Exporting the data to the SPSS software
- Calculating sample weights
- Computing wealth index
- Recoding variables to simplify analysis
- Creating the tables required to analyse the data
- Archiving and distributing the data files.

## PERSONNEL AND INFRASTRUCTURE

### PERSONNEL

The data-processing team for a MICS3 survey includes four types of personnel: a questionnaire administrator, data-entry operators, secondary editors and a data-processing supervisor. Each position has distinct responsibilities and combining them is likely to damage the quality of your data.

The **questionnaire administrator** (or **office editor**) checks and organizes questionnaires as they arrive from the field. When a cluster arrives at the data-processing office, he/she checks that all of the questionnaires are present and ready to be entered. If there are missing questionnaires, he/she must resolve the problem with the help of the fieldwork team (the precise steps that the questionnaire administrator must take are detailed later).

The **data-entry operators** enter the data. They should have prior data-entry experience and be familiar with the questionnaires. One way to accomplish this is to have the data-entry operators attend the interviewers' training. Before beginning data entry, a separate 2-3 day training session must be held to acquaint data-entry operators with the data-entry program and the rhythm of the data-processing system. By the end of the training, the data-entry operators should be comfortable with the data-entry program and aware of their daily responsibilities. The required number of data-entry operators depends upon the number of available computers and is discussed in detail below.

The **secondary editors** investigate and resolve complex inconsistencies discovered by the secondary editing program. They must have an excellent understanding of the questionnaires and the goals of the survey. Editing guidelines are provided in Appendix Seven to aid them in the secondary editing process. A typical survey will require one or two secondary editors.

The **data-processing supervisor** is a critical member of the data-processing team. He/she adapts the model programs to suit her/his country's questionnaires and oversees all data-processing tasks. The data-processing supervisor should have experience managing data processing for a large-scale survey or census, an excellent understanding of the questionnaire, and programming skills in the CPro and SPSS software packages. The data-processing supervisor should be available on a full-time basis during the period that the data are being entered, edited and tabulated.

The data-processing supervisor should be identified early in the planning stages of the survey so that he/she can be involved in the revision of the MICS3 questionnaire. This person should be consulted to ensure that the coding schemes used in the questionnaire are consistent and unambiguous and that all of the identification information needed is included. The data-processing supervisor must also be able to assist in final revisions to the questionnaire based on experience gained while entering questionnaires from the pre-test.

## COMPUTER EQUIPMENT AND OTHER HARDWARE

Below is a list of equipment necessary for data processing:

- Data-entry computers
- The data-processing supervisor's computer
- A secondary storage device (for example, a portable USB device or CD-RW drive)
- Diskettes (or a means for operators to transfer files to the data-processing supervisor, for example, via a network)
- A printer
- Paper
- Toner cartridges/printer ribbons
- Surge protectors
- Uninterruptible power supplies (UPS)
- Green pens

The data-entry computers should have Pentium processors, Windows 95 or higher, at least 32 megabytes of RAM, 1 gigabyte or more of free hard-disk space, and 3.5-inch floppy diskette drives (or be networked together). The number of data-entry computers needed to process the survey depends on the size of the sample, the number of hours a data-entry operator will work each week, the space available and the timetable for the survey. To obtain an estimate of the number of computers needed for data entry, you should estimate how long a data-entry operator will need to enter the questionnaires for a typical household and multiply that by the number of households expected, according to the sample design. If you aren't able to estimate the time it will take to enter the questionnaires, use 20-30 minutes per household as a rough guide, depending on the number of women and children expected per household. Multiply this time estimate by the number of households to get the total hours needed for data entry. Divide this estimate by the number of hours each operator will work per week and then by the number of weeks you will have to complete data entry (if you aim to complete it within a week after the last questionnaires have been returned from the field).

For example, if the sample size for the survey is 6,000 households and each household takes 20 minutes to enter, the total time needed to enter all of the households is 2,000 hours. If you have 8 weeks to complete the data entry, then 250 hours per week are needed. If each data-entry operator works 40 hours a week, you will need seven computers and seven data-entry operators. Sometimes it is possible to arrange double shifts of data entry so that one computer is used by two data-entry operators each day. Each operator would work for, say, 6 hours, so that the computer is in use for 12 hours a day.

The supervisor's computer should have a faster processor, Windows 98 or higher, at least 64 megabytes of RAM, 1 gigabyte or more of free hard disk space, a 3.5-inch floppy diskette drive (or be networked to the data-entry computers), and a secondary storage device.



Uninterruptible power supplies and surge protectors are essential if the country in which you are working suffers from power outages. Green pens should be used whenever a member of the data-processing team modifies the data on a questionnaire. The green ink distinguishes these changes from the original data recorded by the interviewer (in blue ink) and any changes made by the fieldwork team (in red ink).

### **SOFTWARE PACKAGES**

The standard programs for processing MICS3 surveys were developed in CSPro 2.6 and SPSS. CSPro, which has been used to process both surveys and censuses, was developed collaboratively by the United States Census Bureau, ORC Macro International and SerPro Ltda. It can be downloaded free of charge from the website of the US Bureau of Census.<sup>1</sup> SPSS is a commercial software package that is available through UNICEF and through many software suppliers.

### **OFFICE SPACE**

Separate rooms are required for data entry and data editing. The data-entry room should be large enough so that each data-entry operator has space for her/his computer and the questionnaire on which he/she is working. There should be desks or tables for working and sufficient electrical outlets. The room should be cool, well lit and as free from dust and humidity as possible. In countries with hot climates, this requires that the room be air-conditioned. An uninterruptible power supply should be connected to each computer. If power outages are likely to be frequent or prolonged, another emergency power supply, such as a generator, is necessary.

The data-editing room is for the questionnaire administrator and the secondary editors. It, too, should be cool and well lit, and there should be sufficient space for the editors to review questionnaires. Ideally, the editing room will contain sufficient shelves or cupboards to store the questionnaires in an organized fashion. If the questionnaires cannot be stored in the editing room, then they should be stored nearby and be easily accessible since they will be needed at various stages throughout processing. Be careful not to underestimate the amount of space that will be needed to store the thousands of questionnaires that you will have in the office by the end of the fieldwork.

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<sup>1</sup> The web address is: <http://www.census.gov/ipc/www/cspro/>

## ADAPTING THE STANDARD PROGRAMS

As outlined in Chapter 3, the model MICS3 questionnaire must be adapted to the situation in each country. This means that the model data-entry, editing and tabulation programs must also be modified to be consistent with the changes made in the questionnaire. The more changes that are made to the model questionnaire, the more time must be allocated for adapting and testing the programs. For example, if new questions are added to the questionnaire, corresponding additions must be made in the data-entry, editing and tabulation programs.

This process will be significantly easier if the question numbering in the model questionnaire is maintained. If questions are added, a letter should be added to the existing numbering (for example, a question inserted between WS4 and WS5 should be numbered WS4A). Similarly, if questions are deleted, the remaining questions should not be renumbered. In addition, when coding categories are added to those in the model questionnaire, they should be added to the end of the existing list, leaving the other codes intact. The adaptation of data-entry and editing programs should be completed prior to the pre-test. Questionnaires from the pre-test can be entered and edited using the programs. Following these instructions will serve two purposes. It will reveal problems in the coding and skip patterns in the questionnaires as well as any errors in the programs. Once the pre-test has been completed and the questionnaire finalized, final changes can be made to the programs. Subsequent sections give basic guidance on modifying the model data dictionaries and the model CSPro applications. A more detailed summary of the contents of the CSPro applications is provided in separate documents.

Even if you are not adding questions to the model questionnaires, the model data dictionaries and applications contain certain items that must be updated (for example, the acceptable range for the date of interview, the acceptable range for the cluster number, etc.). These items are necessarily country-specific and must be completed by you. Thus, even if your country uses the model questionnaire, you will have to adapt the standard programs.

## THE DATA DICTIONARIES

In the Multiple Indicator Cluster Survey, groups of related questions (for example, on maternal mortality, contraceptive use and immunization) are collected into modules that are then collected into questionnaires (that is, for the household, for individual women and for children under five). In CSPro, dictionaries are used to describe this data structure: a group of related variables (questions) comprises a record (module), and a group of records comprises a level (questionnaire). These are stored in a dictionary file (extension: *dcf*). In addition to the data dictionary, forms linked to the dictionary are used for data entry. There is usually one form for each record. The forms are stored in a forms file (extension: *fmf*). The *dcf* and *fmf* files can be modified directly. The best way to do this is to open the forms file in CSPro. This will give you access to the data dictionary and the forms together and ensure that the two remain synchronized. It is advisable to keep a back-up of the model data dictionary and forms file for reference.

There are three types of MICS3 questionnaires. The Questionnaire for Individual Women and the Questionnaire for Children Under Five correspond to a single unit of analysis: a woman and a child, respectively. The Household Questionnaire contains two units of analysis: the household and the household members. All of the questionnaire types are stored in *mics3.dcf* and *entry.fmf*.

### IDENTIFICATION VARIABLES AND LEVELS

In CSPro, every questionnaire must have a series of variables that uniquely identifies it. For example, a household is identified by its cluster number and household number. The variables that identify a questionnaire are known as the identification variables. Table 7.2 below lists the questionnaire types and their identification variables.

**Table 7.2**  
**Questionnaire Types and Their Identification Variables**

Questionnaire	Cluster number	Household number	Line number
Household	HH1	HH2	
Women	HH1	HH2	LN
Children	HH1	HH2	LN

As you can see from the table, women and children have the same identification variables. Since each household member is listed on a separate line in the household listing, no two women or children will have the same line number, even if they are in the same household. Thus, combined with cluster number and household number, line number uniquely identifies a woman or child.

In a CSPro dictionary, a level is defined by a set of identification variables. In the MICS3 dictionary, there are two levels: households and individuals (that is, eligible women and eligible children). Households are the first level while women and children are the second level. This hierarchical structure is natural since in the MICS3 questionnaire every woman or child belongs to a household while a given household may have many women and children.

The women's questionnaire and children's questionnaire are stored on the same level because each applies to a household member. The data-entry application contains logic that skips forms pertaining to children when entering a woman's questionnaire and skips forms pertaining to women when entering a child's questionnaire. Thus, although women's questionnaires and children's questionnaires are both stored as level-two cases, they have no common variables except the identification variables.

## MODULES

The data dictionary was designed to reflect the modular structure of the MICS3 questionnaires. Each module is stored in its own record (exception: the Household Listing and Children Orphaned and Made Vulnerable by HIV/AIDS modules each have two records because of their unusual structure) in *mics3.dcf* and each record has a form (or two, in the case of the Household Characteristics module) associated with it in *entry.fmf*. Thus, if your country does not use a particular module, you can remove it by deleting its record and its form (and removing any extra logic that references it from the data-entry application).

The modules available for the Household Questionnaire (with the module's code(s) listed in parentheses) are: Household Information (HH), Household Listing (HL and TO), Education (ED), Water and Sanitation (WS), Household Characteristics (HC), Insecticide-treated Nets (TN), Children Orphaned and Made Vulnerable by HIV/AIDS (OV and OR), Child Labour (CL), Child Discipline (CD), Disability (DA), Maternal Mortality (MM) and Salt Iodization (SI).

The modules available for the Questionnaire for Individual Women are: Women's Information Panel (WM), Child Mortality (CM), Tetanus Toxoid (TT), Maternal and Newborn Health (MN), Marriage/Union (MA), Security of Tenure and Durability of Housing (ST), Contraception (CP), Female Genital Mutilation/Cutting (FG), Attitudes Towards Domestic Violence (DV), Sexual Behaviour (SB) and HIV/AIDS (HA).

The modules available for the Questionnaire for Children Under Five are: Under-Five Child Information Panel (UF), Birth Registration and Early Learning (BR), Child Development (CE), Vitamin A (VA), Breastfeeding (BF), Care of Illness (CA), Malaria (ML), Immunization (IM) and Anthropometry (AN).

## VARIABLE NAMING CONVENTIONS

Variables are named for the questionnaire module in which they are located and the number of the question whose response they contain. For example, question 9 in the Household Listing is stored in a variable named HL9. Some questions are split into two or more parts, with the separate parts identified by a unique letter. Each part of such questions is stored in a separate variable. The names of these separate variables include the letters that distinguish the parts of the question. For example, question 11 of the Maternal and Newborn Health module has two parts. The first part of this question is stored in the variable *MN11A*, and the second part is stored in *MN11*.

Some questions have two or more parts to the response categories. These questions are stored in a single variable and the response categories are defined as sub-items. When these questions concern dates, the letters 'd' (for day), 'm' (for month) and 'y' (for year) are appended to the base variable's name to create the name of the sub-items. In question 6 of the Women's

Information Panel, for example, the woman's day, month and year of birth are required. Her response is stored in *WM8*, which has three sub-items: *wm8d*, *wm8m* and *wm8y*.

Some questions have a structure in which the first part of the response is the form of the response and the second part is the response. These questions are stored in a single variable and the form and response are defined as sub-items. The name of the sub-item storing the form of the response is the name of the variable with the letter 'u' (for units) appended to it, while the name of the sub-item storing the response is the name of variable with the letter 'n' (for number) appended to it. For example, question 13 in the Maternal and Newborn Health module records how long after birth a child was first given breastmilk. The respondent may answer in hours or days. The response is stored in the variable *mn13* with sub-items *mn13u* and *mn13n*.

### **MULTIPLE RESPONSE QUESTIONS AND ALPHANUMERIC VARIABLES**

There are a number of questions that allow for multiple responses. These questions are distinguished on the questionnaire by alphanumeric response codes (that is, the letters A through Z). In the data dictionary, the response to a multiple response question is stored in an alphanumeric variable whose length equals the maximum number of potential responses. These are the only alphanumeric variables in the dictionary. Each alphanumeric variable has one sub-item for each response code on the questionnaire. The name of one of these sub-items is the variable's name plus the response code that sub-item represents.

For example, the second question in the Maternal and Newborn Health module records all of the individuals from whom a woman received antenatal care before her last birth. The potential response codes are A, B, C, F, G, H, X and Y. The variable *mn2* is therefore eight characters long and there are eight sub-items: *mn2a*, *mn2b*, *mn2c*, *mn2f*, *mn2g*, *mn2h*, *mn2x* and *mn2y*.

### **CODING CONVENTIONS**

The model dictionaries use standard coding for certain responses. We will first discuss coding conventions for numeric variables. The response 'Other' is always coded as a 6 with leading 9s. Inconsistent responses are always coded as a 7 with leading 9s. The response 'Doesn't know' is always coded as an 8 with leading 9s. Questions with a missing response (that is, the interviewer did not record a response to an applicable question) are always coded as a 9 with leading 9s. Questions that are not applicable to a respondent are always coded as a blank. Table 7.3 below summarizes the standard coding conventions.

**Table 7.3**  
**Summary of Standard Coding Conventions**

Response	Variable length				
	Alphabetic	One character	Two characters	Three characters	Four characters
Other	X	6	96	996	9996
No/None	Y	Na	Na	na	Na
Inconsistent	na	7	97	997	9997
Doesn't know	Z	8	98	998	9998
Missing	?	9	99	999	9999
Not applicable	Blank	Blank	Blank	Blank	Blank

Because the codes 6 through 9 are reserved for special use, any question that requires more than six response categories should have 2-digit response categories with leading zeros (for example, 01, 02, 03, 04, 05, 06, 07, 96, 97, 98 and 99).

For alphanumeric variables, the response 'Other' is always coded as X, the response 'Doesn't know' is always coded as Z, a missing value is always coded using the question mark character (?), and not applicable is coded as a blank.

## RANGES

Most of the questions in the MICS3 questionnaires have defined response ranges. The ranges are defined for variables in the dictionary *mics3.dcf*. CSPro checks during data entry that any value entered in a variable is within that variable's defined ranges. CSPro allows for a large number of ranges for each variable, so questions with non-consecutive response ranges (for example, 1-8, 96, 98 and 99) should be defined using several ranges (for example, 1-6, 96, 98 and 99, instead of 1-99). While dictionary ranges are useful for checking simple ranges, more complicated or conditional ranges (for example, consistency between day and month in a date variable) should be checked in the data-entry or editing applications.

## THE DATA-ENTRY APPLICATION

The data-entry application is a long and complex program. Space limitations prevent it from being described in any detail in this chapter. Instead, this section will concentrate on some important general issues about data-entry application.

## SKIPS

The MICS3 questionnaires make abundant use of skips. Skips are instructions on the questionnaire that tell the interviewer to skip all the questions between the current question and a question later on in the questionnaire. Skips on a questionnaire must be matched by skips in the

corresponding data-entry program. Skips in a data-entry program define the data-entry path. CSPro strictly enforces the data-entry path whenever the '*skip to*' or '*skip to next*' commands are used.

## ERROR MESSAGES

If a data-entry operator enters a value for a variable that is inconsistent with previously entered information, it is useful to display an error message. This error message should explain the nature of the problem and provide any information that might help resolve the inconsistency. In CSPro, the *errmsg* function displays an error message with user-defined text whenever it is called. The error messages for the data-entry program are numbered and stored in the file *entry.mgf*. The text, number and inconsistencies that lead to each of these messages being displayed are listed in Appendix Seven, as are guidelines for resolving them.

You should review your questionnaire to determine if any of the questions that have been added require checking for consistency. If they do, you should add logic to check their consistency in the data-entry program, the editing program, or both. When you add a consistency check, be sure to add a corresponding error message to the data-entry or editing message file. Also, if you add error messages, make sure you do not use an existing error message number.

Some error messages are followed by a *reenter* command that returns to the field that is being entered. This forces the entry operator to address the error before advancing. Because the data-entry operator will at times be required to enter corrections, careful supervision is necessary. When you add your own error messages, consider carefully whether you want to force the data-entry operator to resolve the problem before advancing. If this is the case, follow your error message with a *reenter* command.

## ALPHANUMERIC VARIABLES

The data-entry application checks that alphanumeric variables are correctly entered. It performs four checks on each alphanumeric variable. First, it checks that the entered value contains only codes that are listed on the questionnaire (that is, it performs a range check). Second, it checks that the responses are entered in alphabetical order (that is, *ACG* and not *GAC*). Third, it checks that if the 'Doesn't know' or 'No one' codes (generally the letter 'Y') are included in the response, then no other response is present (that is, it will not allow the response *ACY*). Fourth, it checks that if the missing code ('?') is included in the response, then no other response is present (that is, it will not allow the response *AC?*).

The data-entry application also rearranges the values entered in alphanumeric variables so that each response is stored in the location that defines its sub-item. For the variable 'mn2', for example, the response *ACG* will be rearranged to *A C G* , where there is one blank each between *A* and *C* and *C* and *G* and three blanks after *G*.

## USER-DEFINED FUNCTIONS

A nice feature of CSPro is that it allows programs to define their own functions. Such functions are known as user-defined functions and can be useful. In particular, they allow one to avoid rewriting frequently used code. User-defined functions are always defined at the top of a CSPro application. The data-entry application *entry.app* contains 14 user-defined functions. You do not need to modify these functions, but you must understand what they do if you are to understand the data-entry application.

The *valid* function checks whether a variable's value is one of the special values: inconsistent, doesn't know, missing or not applicable. If the value of a variable is not applicable, the *natozero* function changes it to '0', allowing it to be added to another variable (for an example of its use, see procedure *cm9*).

The next seven user-defined functions (*zscoef*, *dabs*, *zspct*, *zseval*, *zscr*, *zsanth* and *agemth*) are used in the Questionnaire for Children Under Five to calculate the anthropometry scores that are found at the end the Anthropometry module. The *agemth* function is called to calculate the child's age in months. The *zsanth* function is then called. This function calls *zseval*, *zscr* and *zspct*. The function *zseval* calls *zscoef*, and *zspct* calls *dabs*. You will only encounter these functions in the anthropometry variables, and if you encounter them you will know that they are calculating and then checking anthropometry scores.

The code in the *agemth* function calculates the age of the child in months. Because anthropometry is highly sensitive to age, the age of the child must be based on the child's age in days. The code first calculates the number of days that have elapsed between the beginning of the year and a child's birth. It then calculates the number of days that elapsed between the beginning of the year and the date of interview. Finally the number of days in the years between the year of birth and the year of interview is added to the number of days since the beginning of the year until the date of interview. The difference between these two numbers of days is the child's age in days. This is then converted into the child's age in months by dividing by 30.4375 (the average number of days in a month over four years). Because of the need for accuracy, the child's age in months is calculated to two decimal places.

The *vdvalid*, *vdoi* and *vdob* functions check that vaccination dates entered in the Immunization module are consistent, are not after the date of interview and are not before the date of birth, respectively. The *endmess* (short for 'end message') function displays a message at the end of a questionnaire that asks the data-entry operator whether he/she wants to review the current questionnaire or continue to the next one. Finally, the *alphachk* function performs the checks on alphanumeric variables detailed in the previous subsection.



## DATES AND CENTURY MONTH CODE

The model programs (including the data-entry application) use century month codes (CMC) for most dates. The CMC for a date is the number of months since December 1899. For example, the CMC for January 1900 is 1; the CMC for March 2000 is 1203. The CMC for a date is calculated as follows: subtract 1900 from the date's year, multiply that number of years by 12, and then add the number of the date's month to the product. For example, the CMC for March 2000 is calculated as  $(2000-1900) \times 12 + 3$ .

The data-entry application uses four functions to simplify working with century month codes. Two of these functions, *setlb* and *setub*, calculate the lower and upper bounds, respectively, for the CMC of the date of an event. The other two functions, *adjlba* and *adjuba*, adjust the lower and upper bounds, respectively, of the CMC of the date of an event (that is, the birthday of a child) when an age is also specified. Table 7.4 below summarizes these functions.

**Table 7.4**  
**CSPro Functions for Simplifying Work with Century Month Codes**

<code>lcmc = setlb (month, year, minimum);</code>	The function's arguments are a <i>month</i> , <i>year</i> and a <i>minimum</i> CMC. If both <i>year</i> and <i>month</i> are valid, the CMC is calculated and returned. If <i>year</i> is not valid, <i>minimum</i> is returned. If <i>month</i> is not valid, the CMC for January of <i>year</i> is returned.
<code>ucmc = setub (month, year, maximum);</code>	The function's arguments are a <i>month</i> , <i>year</i> and a <i>maximum</i> CMC. If both <i>year</i> and <i>month</i> are valid, the CMC is calculated and returned. If <i>year</i> is not valid, <i>maximum</i> is returned. If <i>month</i> is not valid, the CMC for December of <i>year</i> is returned.
<code>t = adjlba (lcmc, ucmc, di, di, age); if t &lt; 0 then   e = errmsg (2171); else   lcmc = t; endif;</code>	The function's arguments are a date's minimum CMC ( <i>lcmc</i> ), a date's maximum CMC ( <i>ucmc</i> ), the CMC for the date of interview ( <i>di</i> ), and an <i>age</i> . The function raises <i>lcmc</i> using <i>age</i> and <i>di</i> . The function returns the resulting date if it is greater than or equal to <i>lcmc</i> and less than or equal to <i>ucmc</i> . If the resulting date is less than <i>lcmc</i> , the function returns <i>lcmc</i> . If the resulting date exceeds <i>ucmc</i> , the function returns -1.
<code>t = adjuba (lcmc, ucmc, di, di, age); if t &lt; 0 then   e = errmsg (2171); else   ucmc = t; endif;</code>	The function's arguments are a date's minimum CMC ( <i>lcmc</i> ), a date's maximum CMC ( <i>ucmc</i> ), the CMC for the date of interview ( <i>di</i> ), and an <i>age</i> . The function lowers <i>ucmc</i> using <i>age</i> and <i>di</i> . The function returns the resulting date if it is greater than or equal to <i>lcmc</i> and less than or equal to <i>ucmc</i> . If the resulting date is greater than <i>ucmc</i> , the function returns <i>ucmc</i> . If the resulting date is less than <i>lcmc</i> , the function returns -1.

## RECEIPT OF QUESTIONNAIRES FROM THE FIELD

When the questionnaires for a cluster arrive from the field, the questionnaire administrator must check the number of questionnaires against the cluster control sheet. If any questionnaires are missing, the questionnaire administrator must contact the fieldwork team to see if the questionnaires can be found. If they cannot, the fieldwork team must redo the missing questionnaires if at all possible (that is, if the fieldwork team is still located near the cluster). If this is not possible and the missing questionnaire is a Household Questionnaire, the questionnaire administrator must add a blank questionnaire (except for the identification variables) with a result code of '6' to the cluster's questionnaires. If the missing questionnaire is a women's or children's questionnaire, the questionnaire administrator must change the completed questionnaire totals on the cover sheet of the household to which the woman or child belongs.

The arrival of questionnaires from the field must be recorded by the questionnaire administrator on the cluster tracking form. The cluster tracking form is available in both electronic and paper formats. An example of the paper version of the form is found at the end of this chapter; the electronic version of the form is available through the supervisor's menu. Prior to receiving any questionnaires from the field, clusters must be listed in ascending order on the cluster tracking form. As clusters of questionnaires are received, the information for each can then be recorded in the corresponding space. In addition, for each cluster the questionnaire administrator must ensure that:

- All of the questionnaires listed on the cluster control sheet are present
- The household, women's and children's questionnaires for each household are together
- The questionnaires are sorted by household number in ascending order
- All of the women's questionnaires are placed together in ascending order of the women's line number, followed by all of the children's questionnaires, also in ascending order of line number
- All geographic and interview information codes are completed on the Household Information Panel at the start of each Household Questionnaire.

Once the checking is complete and any problems have been resolved, the questionnaire administrator must record the number of household, women's and children's questionnaires on the cluster tracking form. He/she should also create a cluster summary sheet. The cluster summary sheet should be a piece of heavy paper that folds over the end of the package of questionnaires to display the cluster number in bold numbers. The cluster summary sheet should also summarize the number of questionnaires in the cluster, as shown in Table 7.5 below.

Once the cluster summary sheet has been created, the supervisor should assign the cluster to a data-entry operator (note that the assigned data-entry operator must enter all of the cluster's questionnaires). The questionnaire administrator must then record the name of the data-entry operator on the cluster tracking form.

**Table 7.5**  
**Sample Cluster Summary Sheet**

101
Total Household Questionnaires _____
Total Households Completed _____
Total Women's Questionnaires Completed _____
Total Women Completed _____
Total Children's Questionnaires Completed _____
Total Children Completed _____

Whenever the questionnaires are removed from their storage location for entry or editing, they should always be re-bundled in the same order and returned to the same location. Handling the paper questionnaires in a strict, systematic manner will make the various data-processing steps proceed more quickly and efficiently.

When each cluster has been logged onto the cluster tracking form, the questionnaires should be reviewed by the supervisor and checked that they are ready for data entry. The specific checks that should be performed are listed in Table 7.6 below. Once the checking is complete and any problems detected have been resolved, the supervisor assigns the cluster to a data-entry operator.

## **MAIN DATA ENTRY**

Data entry is best begun soon after interviewers start working in the field. This will allow you to spot and correct mistakes that certain interviewers or teams may be making. Serious problems that may escape the field supervisor's notice can be picked up in time to retrain field staff and correct serious errors. Field supervisors are responsible for checking the questionnaires for completeness and consistency and for classifying any responses the interviewer could not code. Only minimal checking as described above should be necessary once the questionnaires are returned to the office. As soon as data from one cluster arrive back at headquarters, data entry should begin.

**Table 7.6**  
**Office Checks**

1. Ensure that all Household Questionnaires are sorted in ascending order of household number within the cluster.
2. Ensure that all geographic and interview information codes are completed on the Household Information Panel at the start of each Household Questionnaire.
3. The eligibility for interview of each member of the household should be checked on the Household Listing Form. To be eligible for the women's modules, a person must be female and aged 15 through 49. To be eligible for the Child Labour module, a person must be aged 5 through 14 (or the country-specific age range). To be eligible for the Child Health modules, a person must be under age five. For each eligible person, the eligibility code should have been circled for their line number or the line number of their mother or primary caretaker (HL6-HL8, Household Listing Form). For other members of the household, the eligibility columns should be blank on the Household Listing, and will be entered as 00. Follow the instructions in the editing guidelines (Appendix Six) for messages 0101-0132 to resolve any problems.
4. The total number of eligible women and children recorded on the Household Information Panel must match the number of eligible women and children recorded on the Household Listing Form.
5. The total number of eligible women and children recorded on the Household Information Panel must match the number of women's and children's questionnaires for the household.
6. The number of complete women's and children's interviews recorded on the Household Information Panel must match the number of women's and children's questionnaires with result code '1' ('Complete') for the household.
7. Ensure that all of the Questionnaires for Individual Women are placed together in ascending order of the women's line number (WM4), followed by all of the Questionnaires for Children Under Five in ascending order of the child's line number (UF4).

The process of entering data is guided by a CSPro application named *entry.ent*. This application performs two main tasks. First, for a given household, it ensures that all questionnaires (and only these questionnaires) are entered and that all the information on the questionnaires (and only this information) is entered. In particular, the data-entry application begins by entering all of the data from a Household Questionnaire. Once these data have been entered, it reviews the Household Listing and determines which household members are eligible for women's questionnaires. Having identified these members, the data-entry application asks for each individual's data from

her women's questionnaire, in ascending order of line number. The data-entry application then executes the same procedure for household members who are eligible for the children's questionnaire. When all of a household's questionnaires have been entered, the data for the entire household is saved and the application moves on to the next household in the cluster, if any.

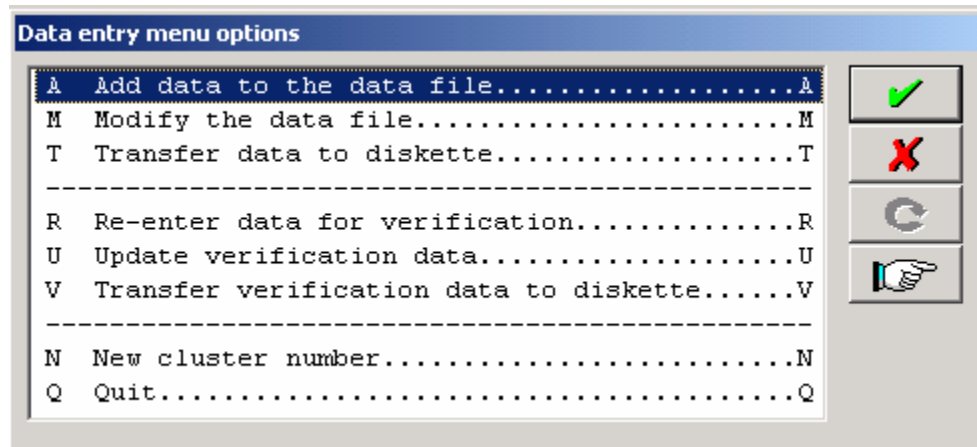
Because data are saved only after the questionnaires for the household and all eligible women and children have been entered, data-entry operators should not leave their computers in the middle of entering data for a household. Before taking a break or stopping work for the day, all of the questionnaires for a household must be completely entered. Further, it is recommended that data be copied onto the supervisor's computer or a floppy diskette as a precautionary measure. In addition, every evening the supervisor must copy the contents of *c:\vnics* and all of its subdirectories onto the secondary storage device. This safeguard will allow the supervisor to recover the data if her/his computer crashes.

In addition to controlling which questionnaires are entered, the data-entry application rigorously controls the skip pattern within a questionnaire. That is, it will only ask for the responses to questions that should have been asked given the responses to previous questions. For example, if the value 2 is entered in variable *cm1* (that is, the woman has never given birth), the data-entry application will next ask for a value for variable *ma1*, skipping all variables that pertain only to women who have given birth.

The second task of the data-entry application is to minimize data-entry errors. The data-entry application does this by performing checks as the data are entered. If a value entered for a question is outside the range of values on the questionnaire or if some other basic inconsistency is detected, the data-entry application displays an error message and requires the data-entry operator to resolve the inconsistency before advancing. More complex inconsistencies, whose resolution would slow data entry considerably, are not checked during the data-entry process and are checked instead during secondary editing.

### **THE DATA-ENTRY MENU**

The data-entry menu simplifies the task of entering the data. The data-entry menu is created by the CSPro application *entry\_menu.bch* (you do not need to modify this application). The illustration below shows the data-entry menu.



Options A, M and T are used only if the data-entry operator is entering the main data file. Options R, U and V are used only if the data-entry operator is entering the verification data file. Options N and Q can be used under either circumstance.

Option A allows the data-entry operator to add cases to the main data file, option M allows her/him to modify existing cases in the main data file, and option T allows her/him to copy the completed main data file to a diskette so that it can be transferred to the supervisor's computer. Option R allows the data-entry operator to add cases to the verification data file, option U allows her/him to modify existing cases in the verification data file, and option V allows her/him to copy the completed verification data file to a diskette so that it can be transferred to the supervisor's computer.

Option N allows the data-entry operator to change the cluster number so that she/he can enter data for another cluster. Option Q exits the data-entry menu.

### DIRECTORY STRUCTURE ON A DATA-ENTRY COMPUTER

On a data-entry computer, all files and programs are listed in the directory *c:\mics\CSPro* or one of its subdirectories. The subdirectories are named *data*, *dicts*, *entry* and *veri*. The *data* directory contains any main data files that have been entered on the computer. The *dicts* directory contains all the data dictionaries. The *entry* directory contains the data-entry application and the application that creates the data-entry menu. The *veri* directory contains any verification data files that have been entered on the computer.

Data-entry operator's computer directory structure:

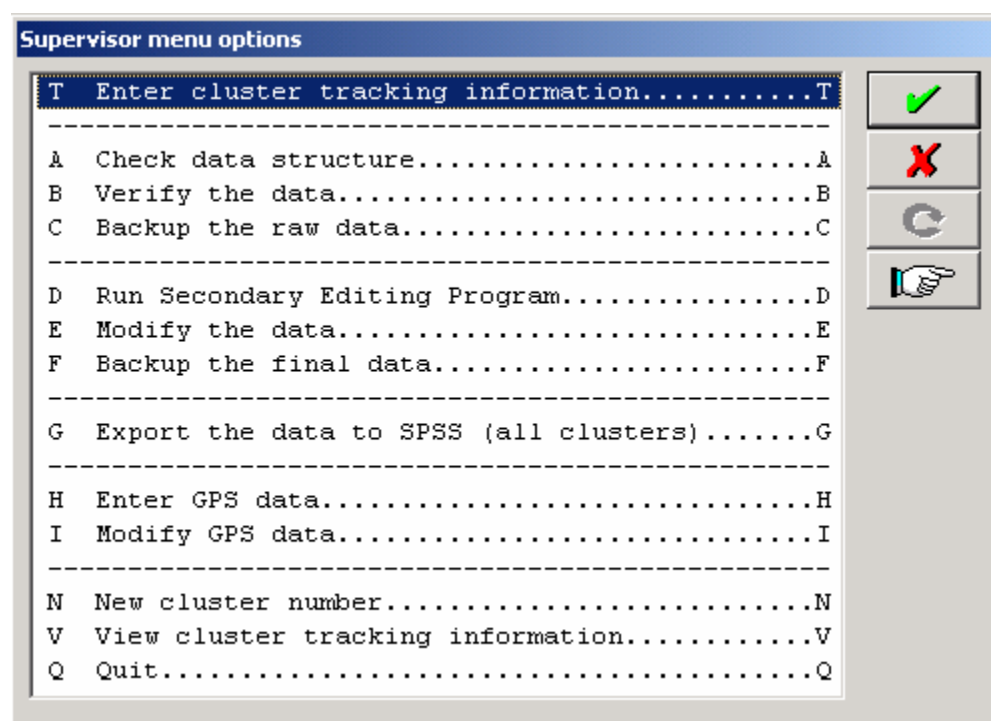
MICS

CSPRO

DATA	Main data directory
DICTS	Data dictionaries directory
ENTRY	Data-entry application directory
VERI	Verification data directory

## THE SUPERVISOR'S MENU

The supervisor's menu helps the data-processing supervisor to manage the MICS3 data-processing system. It is launched by executing the CSPro application *super\_menu.pff*. The menu first asks for the cluster number to process. Once the cluster number is entered, the illustration below shows the supervisor's menu and is followed by a summary of each option.



### OPTION T: ENTER CLUSTER TRACKING INFORMATION

This option displays the electronic cluster tracking form so that the data-processing supervisor can enter the cluster tracking information. Information should be entered when the questionnaires for a cluster are first received from the field, when the cluster is assigned to a data-entry operator for main data entry, and when the cluster is assigned to a data-entry operator

for verification data entry. The other information in the electronic cluster tracking form is updated automatically as the supervisor progresses through the supervisor's menu.

#### **OPTION A: CHECK DATA STRUCTURE**

This option checks the structure of the cluster's data file by executing the application *check.bch*. After checking the structure of the data file, *check.bch* produces an output file (that is displayed automatically on the screen) that summarizes the number of each type of questionnaire and shows how many of the questionnaires were complete. The data-processing supervisor must check this information against the cluster tracking form and ensure that the two sources agree. If they do not, the data-processing supervisor must identify the problem (for example, the data-entry operator forgot to enter a household) and resolve it by carefully checking the cluster's questionnaires. Once the problem has been resolved (whether by updating the data file or updating the cluster tracking form), the data-processing supervisor must rerun *check.bch*. Only when *check.bch* produces the same number of questionnaires as the cluster tracking form may the data-processing supervisor assign the questionnaires to a second data-entry operator for verification data entry.

#### **OPTION B: VERIFY THE DATA**

This option compares a cluster's main data file to its verification data file using CSPro's comparison tool. If there are any differences between the data files they will be displayed on the screen. This output must be printed and given to the data-entry operators responsible for entering the cluster. Working in tandem, the data-entry operators must consult the questionnaires and determine the correct value for each instance in which their data files disagree. Once they have determined the correct values, each operator must update her/his data file. At this point the files must be compared again. When no differences between the two files remain, processing of the cluster can proceed.

#### **OPTION C: BACK UP THE RAW DATA**

This option backs up the raw data by copying the verified main data file to the *back-up* subdirectory on the supervisor's computer. It should be run after the structure checks and verification are complete and before any secondary editing is done. The raw data are backed up to document the state of the data before they were edited.

#### **OPTION D: RUN SECONDARY EDITING PROGRAM**

This option checks for complex inconsistencies by executing the *editing.bch* application. The output from this program is displayed on the screen and should be printed if it includes any error messages. If this is the case, the list of inconsistencies and the questionnaires for the cluster should be given to a secondary editor. The secondary editor, drawing upon her/his knowledge of the questionnaire and the editing manual in Appendix Seven, will resolve each of the listed



inconsistencies. When the secondary editors have finished their work, they return the list of inconsistencies and required actions to the data-processing supervisor, who implements the changes that they required (see Option E below). The data-processing supervisor then reruns *editing.bch*. If there are no error messages, processing of the cluster can proceed; if there are error messages, a list of them and the questionnaires must be given to the secondary editor for further editing. In some cases, messages will be considered acceptable by the secondary editor and there is no further need to correct the data. If the only messages that remain are those the secondary editor considers acceptable, then the process of secondary editing is complete.

#### **OPTION E. MODIFY THE DATA**

This option executes the *entry.ent* application so that the data-processing supervisor can implement the changes required by the secondary editors. After using this option, the data-processing supervisor should return to Option D to make certain that changes to the data have corrected the inconsistencies as desired and that no new inconsistencies have been created.

#### **OPTION F. BACK UP THE FINAL DATA**

This option copies the final data files to the *final* subdirectory on the data-processing supervisor's computer. The data stored in this directory will later be concatenated and then exported to SPSS.

#### **OPTION G. EXPORT THE DATA TO SPSS**

This option concatenates all of the data files in the *final* subdirectory into one file and then exports this data file by executing *export.bch*. The application produces four ASCII text files and a corresponding SPSS description file for each text file. One text file contains households, one contains household members, one contains women and one contains children.

#### **OPTION H. ENTER GEOGRAPHIC POSITIONING SYSTEM (GPS) DATA**

This option allows the data-processing supervisor to enter GPS location data by executing the *gpsentry.ent* application. Unlike the main data-entry program, this application allows the data-processing supervisor to enter as many clusters at a time as he/she would like. The application requires the data-processing supervisor to enter the GPS data twice as a check against keying errors.

#### **OPTION I. MODIFY GPS DATA**

This option allows the data-processing supervisor to modifying GPS location data by executing the *gpsentry.ent* application.

**OPTION V. VIEW CLUSTER TRACKING INFORMATION**

This option displays the information stored in the cluster tracking form for all the clusters.

**OPTION N. SELECT NEW CLUSTER**

This option changes the cluster number so that the data-processing supervisor can begin processing a new cluster.

**DIRECTORY STRUCTURE ON THE DATA-PROCESSING SUPERVISOR'S COMPUTER**

The MICS3 data-processing system uses a particular directory structure on both data-entry computers and the data-processing supervisor's computer. The structure of data-entry computers is discussed below. On the supervisor's computer, all files and programs related to SPSS are stored in the directory *c:\mics\spss* or one of its subdirectories. On the supervisor's computer, all files and programs related to CSPro are stored in the directory *c:\mics\CSPro* or one of its subdirectories. The subdirectories are named *backup*, *dicts*, *entry*, *export*, *gps*, *final*, *raw*, *super* and *weights*.

Supervisor's computer directory structure:

MICS

CSPRO

BACKUP	Back-up directory
DICTS	Data dictionaries directory
ENTRY	Data-entry application directory
EXPORT	Export application directory
FINAL	Final edited data directory
GPS	GPS data-entry application directory
RAW	Raw data directory
SUPER	Supervisor editing application directory
WEIGHTS	Sample weights application directory

The *back-up* directory contains a back-up of data files that have been structurally checked and verified, but not edited. The *dicts* directory contains all the data dictionaries. The *entry* directory contains the data-entry application and the application that creates the data-entry menu. The *export* directory contains the programs used to export the data from CSPro to SPSS. The *final* directory contains a back-up of data files that have been structurally checked, verified and edited. The *raw* directory contains the data files that have been transferred from the data-entry machines. The *super* directory contains the applications that perform structural checks, verification and secondary editing and the application that creates the supervisor's menu. The *weights* directory contains the spreadsheet that calculates sample weights.

## STRUCTURE CHECKING

It is essential that the data be structurally sound. The data-entry program enforces most structural coherence, but it cannot check everything without being seriously constrained. It is therefore necessary to execute a structure checking program after main data entry is complete. The structure checking program makes sure that the number of questionnaires in the data file matches the number of questionnaires that arrived from the field and performs a few additional checks on the structure of an individual questionnaire.

The structure checking program is named *check.bch*. This section will focus on what the program does rather than on how it does it. The program is complex and does not lend itself to facile explanations. The best way to understand the logic in the program is to study it carefully once you understand what the program is doing. A sample of the critical output from *check.bch* is shown below.

```
MICS Data Structure Check
Cluster: 3
```

```

Households |      Women      |      Children
Total Comp Incomp | Eligible  Interviewed | Eligible  Interviewed
      | HH12 FOUND  HH13 FOUND | HH14 FOUND  HH15 FOUND
2  1  1 | 5  5  4  4 | 4  4  3  3
```

The first block of the output is a summary of the total number of households and their response codes. The second block of output presents the results of four counts of the number of eligible women. The counts in the *hh12* and *hh13* columns are the number of eligible and interviewed women according to the Household Information Panel. The counts in the *found* columns are the number of women's questionnaires and completed women's questionnaires, respectively, in the data file.

The third block of output presents the results of four counts of the number of eligible children under the age of five. The counts in the *hh14* and *hh15* columns are the number of eligible and interviewed children according to the Household Information Panel. The counts in the *found* columns are the number of children's questionnaires and completed children's questionnaires, respectively, in the data file.

The output of *check.bch* must be printed by the supervisor and the information that it contains compared to the cluster tracking form. If there is a difference between the two counts of the questionnaires, the supervisor and the data-entry operator must then use the error listing and the cluster's questionnaires to determine what caused the structural problem. When these causes have been identified, they must be corrected by the data-entry operator. The structure checking application must then be rerun to check if the problem has been fixed without introducing a new problem. Only when the counts generated by *check.bch* match those on the cluster tracking form can verification data entry begin.

The application *check.bch* also produces a list of all of the households in the cluster. Each household's number and result code are displayed, along with a count of women's and eligible children's questionnaires if the household interview was completed (that is, the household result code is equal to 1). A sample of the output for one household is shown below.

```
MICS Data Structure Check
Household: 1
Result: 1

      Women      |      Children
Eligible  Interviewed | Eligible  Interviewed
HH12 FOUND  HH13 FOUND | HH14 FOUND  HH15 FOUND
    4    4    3    3 |  2    2    1    1
```

The listing of households can be useful in identifying the source of a problem at the cluster level. Suppose, for example, that the cluster tracking sheet lists 20 households in the cluster but only 19 are found in the data file. By comparing the listing of households to the cluster's questionnaires, you can identify which household was not entered.

## VERIFICATION

Verification of double-entered data is done by a CSPro comparison application. The comparison application is named *compare.cmp*. It contains a list of all variables (items). As the program is currently configured, checked items will be compared during verification and unchecked items will not be compared during verification. Only one variable is unchecked (the data-entry operator's code, *hh16*) and it is recommended that *no additional variables* be unchecked since differences in other variables can affect the quality of the data.

The comparison application compares the main data-entry file (which has been copied onto the supervisor's machine) to the verification data-entry file (which has been copied onto a diskette, or network drive, if using a network) and produces a list of differences, if any. If there are no differences, the supervisor should back up the raw data and then proceed to secondary editing.

If there are differences, the list of them should be printed and given to the two data-entry operators. The data-entry operators then use the list of differences and the cluster's questionnaires to check each difference and record on the list which file needs to be corrected. When all of the differences have been investigated, the data-entry operators correct any errors in their files. They then recopy the data files to their floppies (or to the network) and the files are compared again. This process continues until the files are identical.

## SECONDARY EDITING

Experience has shown that simple inconsistencies can be usefully identified and corrected during data entry. More complex consistency errors, however, must be resolved by carefully examining the questionnaire. This type of consistency checking is best carried out as a separate step, with

errors reported on a printout that can be used for marking the corrections. This step is known as secondary editing.

The secondary editing program is named *editing.bch*. It performs a long list of consistency checks (for example, are ages and dates of birth consistent?) and outputs a list of the inconsistencies found in the raw data file. The data-processing supervisor must print out this list and give it and the cluster's questionnaires to one of the secondary editors. The secondary editor then reviews the list of errors and the responses on the questionnaire. Using the editing guidelines (found in Appendix Seven) and her/his knowledge of the questionnaire, the secondary editor then either writes a correction on the error listing or writes that no action is to be taken. When the secondary editor has reviewed each and every error message, he/she returns the annotated error listing to the data-processing supervisor. The data-processing supervisor then makes the suggested changes in the raw data. When this has been done, the data-processing supervisor reruns the editing program. Only when the editing program produces no error messages may processing of the cluster continue.

Three aspects of the editing process are vitally important. First, for every error the secondary editor must carefully examine the questionnaire concerned. Second, the secondary editor must always refer to the editing guidelines before developing a solution to the problem. Third, the editing process must be repeated until there are no errors remaining.

Once this third task has been completed, the data-processing supervisor can back up the edited data. These data are now considered to be clean and can be used to construct analysis files.

## EXPORTING THE DATA TO SPSS

When primary data processing is complete, you will have a clean data file for each cluster in your sample. While primary data processing is done using CPro, secondary data processing is done primarily in SPSS. The first step in secondary data processing is therefore converting the data from CPro's data format to SPSS' data format. This is done using the 'Export the data to SPSS' option on the supervisor's menu.

When you select this option, all of the data files in the *final* subdirectory (that is, all of the data files that have been verified, checked and edited) are concatenated into a single data file named *all.dat*. This data file is then exported to SPSS by the *export.bch* application. This application creates four ASCII data files (*mych.dat*, *myhh.dat*, *myhl.dat* and *mywm.dat*) and four SPSS description files (*mych.sps*, *myhh.sps*, *myhl.sps* and *mywm.sps*) in the directory *c:\mics\spss*. While the SPSS data description files will read the ASCII data files into SPSS, they will not save them. To get the data description files to save the data in SPSS format, the SPSS command

```
save outfile = `filename.sav'.
```

must be added to the end of each data description file. The word *filename* should be replaced by *hh*, *hl*, *wm* or *ch*, depending upon the type of data file. Once this command has been suitably

modified and added to each data description file, executing the SPSS data description files will create the SPSS data files *hh.sav*, *hl.sav*, *wm.sav* and *ch.sav*.

## CREATING AN ANALYSIS FILE

The structure of the data file during primary data processing simplifies the process of entering the data. This structure is not optimal for analysing the collected data, however, so the first task after the data have been transferred to SPSS is recoding variables to make analysis easier and more efficient. This task is known as creating an analysis file. This section will detail the steps involved in creating MICS3 analysis files. The analysis files that will result from following these steps can be used by the model tabulation plans and are suitable for distribution to researchers.

### RECODING VARIABLES

The SPSS programs *makehl.sps*, *makewm.sps* and *makech.sps* recode existing variables to create new ones. Variables that are used in several tabulations are recoded in these programs and then saved; all other recoding is done in the tabulation programs and is temporary.

The recoding of most variables uses standard SPSS commands and will not be discussed here. There is, however, one frequently used approach that must be explained: the recoding of variables into 0 or 100. This unusual recoding is done for presentation purposes only. When SPSS displays percentages in a table, it displays all of a variable's categories. For many tables in the tabulation plan, we are only interested in one category. If we assign a value of 100 to that category and a value of 0 to all other categories, the mean of the variable is the percentage of respondents in that category. Thus, asking SPSS to display the mean of the new variable will result in only the percentage we are interested in being displayed.

For example, the variable *hal* records whether a woman has heard of AIDS. It takes a value of 1 if a woman has heard of AIDS and a value of 2 if she has not. We are interested in displaying the percentage of women who have heard of AIDS. In the program *makewm.sps*, the variable *hal* is recoded into the variable *aids*. The variable *aids* takes a value of 100 if the woman has heard of AIDS and a value of 0 otherwise. The mean of the variable *aids* is the percentage of women who have heard of AIDS. To understand why this is so, consider the example below:

Women who have heard of AIDS	10
Total number of women	20
Percentage of women who have heard of AIDS	$10 / 20 \times 100 = 50$
Mean of the variable AIDS	$(10 \times 100 + 10 \times 0) / 20 = 10 \times 100 / 20 = \mathbf{10/20 \times 100 = 50}$

## CALCULATING AND ADDING SAMPLING WEIGHTS

If separate sampling frames were used for different regions (or domains) at the first stage of sampling, the national sample was not chosen with probability proportional to size. This may also happen if you stratified according to some other factor (for example, urban/rural or slum/non-slum) and took different sampling fractions (proportions) in each stratum. These samples are not self-weighting, and you must weight your sample when you report national estimates. That is, you must ensure that each separate sub-sample – for example, each separate region (or domain) – contributes only what it would contribute if the survey sample at the national level had been chosen with probability proportional to size.

If your sample is not self-weighting, you must calculate sample weights and add them to your analysis files. This task is accomplished by using the spreadsheet *weights.xls* and the SPSS programs *weights\_table.sps*, *weights.sps* and *weights\_merge.sps*. The spreadsheet is used to calculate the sample weights. It has two worksheets, *calculations* and *output*. The *calculations* worksheet performs the calculations. The *output* worksheet contains only the sample weights and a list of cluster numbers; this format is useful for reading the data into SPSS. The program *weights\_table.sps* produces data needed for calculating the sample weights. The program *weights\_merge.sps* adds the appropriate sample weights to the analysis files. The program *weights.sps*, which you will never directly execute, describes the structure of the data in the output worksheet.

The process of calculating sample weights and adding them to your analysis files can be broken down into seven steps:

**Step 1:** Adjust the number of rows in the *calculations* and *output* worksheets so that there is one row per cluster in your survey. After you have added or deleted rows, be sure to check that doing so did not affect the totals row in the *calculations* worksheet.

**Step 2:** Enter the weights that were built into the design of the sample into *weights.xls*. If your weights vary across clusters within a particular stratum or domain, you must complete both the cluster sampling fraction column and the stratum (or domain) sampling fraction column with the information provided by your survey's sampling expert. If your weights vary across strata (or domains), but not across clusters within strata (that is, the sample is self-weighted within strata or domains), enter the value 1 in the cluster sampling fraction column and complete the stratum (or domain) sampling fraction column using the information provided by your survey's sampling expert.

**Step 3:** Update the definition of strata (or domains) on lines 3 through 10 of the program *weights\_table.sps*. The standard programs assume that strata are formed by all combinations of area (that is, urban and rural) and region and that there are four regions (the program should be modified to reflect the strata or domains in use in your sample).

**Step 4:** Execute the program *weights\_table.sps*.

**Step 5:** Copy the information in the table and paste it into the *calculations* worksheet of *weights.xls*. When you complete this step, *weights.xls* will automatically calculate the sample weights.

**Step 6:** Save the *output* worksheet as a comma-separated value file (\*.csv) under the name *weights.csv* in the directory *c:\mics\weights*.

**Step 7:** Execute the program *weights\_merge.sps*. Once you have completed the seventh step, be sure to check the output list for error messages and to open the analysis files and confirm that the weights have been properly merged.

### CALCULATING AND ADDING A WEALTH INDEX

The MICS3 tabulation plan includes as a background variable a household wealth index. This wealth index is calculated by the program *wealth.sps*, which creates a data file *wealth.sav* that contains identification variables, a variable containing each household wealth score and a variable containing each household's wealth index. The program *wealth.sps* first produces frequencies of all household variables concerned with wealth or assets. It then recodes variables describing household and individual assets into dichotomous variables. The program then uses factor analysis (specifically principal components analysis) to calculate a wealth score for each household. Finally, it uses the wealth score to create household wealth quintiles (that is, the wealth index) and then saves them in an SPSS data file. The choice of variables to be included in the factor analysis is critical, and should not be made without carefully consulting the frequencies produced. Information on variables included in the analysis is available at [www.childinfo.org](http://www.childinfo.org). Once the wealth index has been calculated, executing the program *wealth\_merge.sps* will add it to your analysis files. Be sure to check the output list for error messages and to open the analysis files and confirm that the wealth index has been properly merged.

### ADDING GPS READINGS

Some MICS3 surveys will take Geographic Positioning Systems (GPS) reading for their clusters during fieldwork. GPS readings, which precisely locate clusters, can be used to add other geographical data sets (for example, rainfall data) to a MICS3 data set. If your survey is taking GPS readings, you will want to merge them onto your analysis files. This task is accomplished by two SPSS programs, *gps.sps* and *gps\_merge.sps*. The program *gps.sps*, which you will never directly execute, describes the structure of the data file *gps.dat* (which is created by the CSPro data-entry application *gpsentry.bch*). If you have changed the CSPro dictionary *gps.dic*, you must update *gps.sps* to reflect your changes. The program *gps\_merge.sps* merges GPS readings onto the analysis files. You should not need to modify this program. To merge the GPS readings



onto the analysis files, execute *gps\_merge.sps*. Be sure to check the output list for error messages and to open the analysis files and confirm that the GPS readings have been properly merged.

## TABULATION

Chapter 8 describes in detail the process of analysing the data and preparing reports. Running tabulations is a major component of this activity. A model tabulation plan (Chapter 8 and Appendix Six) and tabulation programs for SPSS accompany this manual. There is one SPSS tabulation program for each table in the MICS3 tabulation plan. Each program's name is the letter 't' followed by the number of the table in the tabulation plan. For example, the program *t1.sps* creates Table 1 in the tabulation plan.

Prior to running tabulations for a report, it is essential to produce a set of (unweighted) frequency distributions for every variable in the data file. The frequencies should be checked for unusual values, those that are outside the range of most responses, and those that seem implausible answers to the relevant question. For example, a response of '53' to the question on the number of hours a child did chores in the last week seems both implausibly high and too precise. The identification information for such cases should be written out and the values in the data file checked against the original questionnaires.

### REVIEWING THE MODEL PROGRAMS

Each tabulation program must be carefully reviewed. It is important to check whether the variables used in the tabulation program exist in your data file. If they do not, check whether the variable is of primary or secondary importance. If a variable of primary importance does not exist in your data file, you must either remove the table entirely or ask an analyst to redesign the table. If a variable of secondary importance is missing, remove all references to the variable in the tabulation program and make any other adjustments necessitated by its absence.

All recoding activity must also be carefully checked. If there are variables on your questionnaire that have non-standard categories, any recoding activity involving those variables must be examined. If your questionnaire contains non-standard variables, they must be recoded if they are to be used in any tabulation.

You must also check any merge operations if your questionnaire uses case identifiers not present in the standard questionnaire. There are a number of merges in the tabulation programs that will only work if unique identifiers are used.

### APPLYING THE SAMPLE WEIGHTS

Weighting in the tabulation programs is straightforward except where the SPSS *aggregate* command is involved. If the goal of the *aggregate* command is to cumulate across cases to calculate a numerator and a denominator, weights must be applied before the *aggregate*

command. They should not be used when working with the resulting file; it has already been weighted.

For example, Table HH.1, shown in Appendix Seven, contains the household response rate. The household response rate is difficult to calculate because it requires dividing one variable by another within the table. One solution to this problem is to create an aggregate file that contains counts of sampled households, occupied households and interviewed households. The aggregate file will contain one case for each category of the specified break variable (for example, urban/rural).

The weights must be applied when the aggregate file is created to generate the weighted numerator (the count of interviewed households) and the weighted denominator (the count of occupied households). Once the aggregate file has been created, the household response rate for each category of the break variable is the numerator divided by the denominator.

If the goal of the *aggregate* command is to create a summary statistic for individual cases, weights must be applied after the *aggregate* command. For example, Table HH.3 in Appendix Seven contains information on the percentage of households that contain at least one child under the age of 15.

This information is not present in the household data file, but it can be created by aggregating the household listing file. The break variables are cluster number and household number. Weights are applied after aggregating because we are interested in the weighted percentage of households with at least one child under the age of 15, not the weighted number of children under the age of 15 in each household.

## THE INCLUDE COMMAND

The SPSS program *tables.sps* will run all of the tabulation programs at once. It consists of a series of SPSS *include* commands that execute the tabulation programs individually. If SPSS encounters an error in a program that is included (that is, executed by an *include* command), it will immediately stop executing the program and return to the program that included the program (that is, the program that contained the *include* command).

Because of this, you should only use *tables.sps* when you have checked, modified and tested all of the individual tabulation programs. Be sure to also remove any *include* command that executes a tabulation program that you are not using.

The *include* command imposes four restrictions on the programs that it executes. The first restriction is that each command must begin in the first column of the program. This restriction appears to limit program indentation, but a line may be indented if it begins with the '+' character. The commands below illustrate the use of the '+' character.

```
do if (cage >= 6 and cage <= 9).  
+ compute solids = 0.  
+ if (BF3G = 1) solids = 100.  
end if.  
variable labels solids "Solid foods".
```

The second restriction imposed by the *include* command is that if a command continues over multiple lines, column 1 of the continuation lines must be blank. The example below illustrates a multi-line command that respects this restriction.

```
add files  
/file=*  
/file='tmp6.sav'.
```

Notice that the subcommands on the second and third lines are indented two columns. (While they need only be indented one column to satisfy the restriction, they have been indented two columns to remain consistent with the MICS3 programming style.)

The third and fourth restrictions imposed by the *include* command are that command terminators are optional and that an asterisk (\*) in the first column of a line indicates a comment line. Neither of these restrictions affects our tabulation programs.

In addition to *tables.sps*, there is an SPSS program that automates the creation of analysis files. This program is named *CSPro.sps*. This program should only be used when all of the component programs have been executed and shown to work. It is useful for recreating analysis files when a change is made to one of the file creation programs. It ensures that all of the analysis file creation programs will be executed in the proper order.

## ARCHIVING AND DISTRIBUTING DATA

An important – but often neglected – component of data processing is the archiving and documentation of data files. In addition, whether the data files will be available widely or only within a single institution, it is imperative to establish some guidelines for distribution well in advance. These steps – archiving, documenting and distributing – require an investment of time and effort. The investment is well worth it, however, for a number of reasons:

- **Increasing the cost-effectiveness of data collection.** Collecting survey data is a costly and labour-intensive activity. In order to justify this investment, the data collected should be exploited as fully as possible. Making data files available to other researchers increases the cost-effectiveness of the survey activity.
- **Increasing country ownership of the data and acceptance of the results.** When the data file is available for others to use, the data collection process gains credibility. The collectors of the data are viewed as having confidence in their findings, and the

accessibility of the data file to other researchers means that the results can be replicated and verified by others.

- **Ability to examine trends.** Often, published results from different surveys are not directly comparable. For example, one survey report may define adult respondents as those age 15 or older while another defines adults as those age 18 or older. Without data files, the best that can be done is an imprecise comparison of the two sets of results. When the data files for the two surveys are available, however, the results can often be re-tabulated so that they are directly comparable, allowing conclusions about trends to be drawn.
- **Ability to compare results within and across countries.** It is often instructive to compare results across countries, either within a subregion or across regions. These comparisons facilitate the identification of areas where a particular programme emphasis is needed or where programmes have been particularly successful. Furthermore, it may be useful to compare results from different surveys within the same country. Sometimes this is done to validate unexpected results (when infant mortality is lower than expected, for example) or to assess the effects of a particular data collection methodology (for example, relying on vaccination cards versus mothers' reports of vaccinations). In order to conduct these types of analyses, researchers require access to data files so that directly comparable figures can be calculated.
- **Allows in-depth analysis of important subject areas by specialists.** Because of the pressure to report findings quickly, the information presented in a survey report usually includes only the basic findings of a survey. A well-documented and available data file will allow in-depth analyses of particular subject areas to be conducted, and these analyses can be done by subject specialists who may not be on the staff of the data collection institution.

The MICS3 analysis file should be archived, documented and distributed. At a minimum, the documentation accompanying the analysis files should include a copy of the full report, a copy of the questionnaire and a description of the sample design. The documentation should also include a codebook containing the location and description of each variable in the analysis file (this can be easily created in SPSS). Copies of all of the programs and files used during the survey processing should also be archived and made available upon request. A copy of the analysis files and their documentation should be sent to the UNICEF Regional Office and to UNICEF New York (Statistics and Monitoring Section). Finally, a policy and procedure for the distribution of the data file to others should be established.

**Table 7.7**  
**Checklists**

**Before fieldwork:**

- Obtain computers and other data-processing equipment.
- Set up a data-processing room or space.
- Recruit a data-processing supervisor and other personnel.
- Set up a system for organizing processing activities.
- Adapt programs for consistency with pre-test questionnaire.
- Enter and edit pre-test questionnaires.
- Finalize programs based on pre-test experience and the final questionnaire.

**During fieldwork:**

- Receive questionnaires from the field.
- Assign main data entry.
- Check the structure of the main data-entry file.
- Assign verification data entry.
- Verify that the main and verification data files are identical.
- Back up the raw data file.
- Perform secondary editing.
- Back up the final data file.

**After fieldwork:**

- Export the data to SPSS.
- Recode variables.
- Calculate and add sample weights, a wealth index and GPS data.
- Run the tabulation programs.
- Archive the data and develop a data distribution policy and system (for example, a website).
- Send the analysis files, their documentation and all programs to UNICEF.

**Table 7.8**  
**Sample Cluster Tracking Form**

Cluster number	Date received	Households selected	Number of questionnaires			Data entry			Date check complete	Date verification complete	Date of raw data back-up	Date of editing	Date of final back-up
			Household	Women's	Children's	Operator name	Operator number	Creation date					
						M:							
						V:							
						M:							
						V:							
						M:							
						V:							
						M:							
						V:							
						M:							
						V:							
						M:							
						V:							
						M:							
						V:							
						M:							
						V:							
						M:							
						V:							
						M:							
						V:							

## CHAPTER 8

# ANALYSIS, REPORTING AND DISSEMINATION

*This chapter is for survey coordinators, technical resource persons and anyone involved in the analysis of survey data or in reporting on and disseminating survey results. It will help you:*

- Become familiar with your data before starting to write reports
- Prepare a preliminary report
- Prepare a full technical report
- Plan for dissemination of the results
- Plan for analysis beyond the descriptive reports.

### ANALYSIS AND REPORTING

Analysing the data obtained from MICS3, producing survey reports, building awareness of the data and disseminating the survey results are the final steps in the survey process. The results will be used in many ways – to assess progress on the rights of children and women in your country, to provide a baseline for the future, and to plan and modify programmes. It is very important, therefore, that the analysis be carried out with careful attention to the details of calculation and interpretation. In this chapter, step-by-step guidance is provided on analysing the data in order to produce indicators and on preparing timely reports that adhere to rigorous standards of technical quality and usefulness. The chapter also includes general guidelines on how to disseminate the survey results and carry out analyses beyond the descriptive reports.

#### ANALYSING THE DATA: FIRST STEPS

You should plan to produce two reports based on MICS3 data: a preliminary report and a full technical report. Each of these is described in detail below. When you start your analysis, you should have ‘clean’ data files. These files will have been checked for structural and range errors and edited for internal consistency (see Chapter 7). Before producing tabulations and writing the reports, however, there are a number of additional tasks that you should complete.

- *Carry out basic checks of data quality (non-sampling errors).*
- *Calculate response rates.* In the sample design for the survey, a target number of

households and individual respondents was specified.<sup>1</sup> Check the number of households and respondents that were successfully interviewed. Were the targets achieved? If not, were there particular regions or areas with unusually low response rates? Make note of the major reasons for non-response. Sample surveys like MICS3 are usually able to obtain response rates of at least 90 per cent. If your survey has response rates lower than 90 per cent, you should be aware that your results may be biased. Response rates should be included in the reports you will produce.

- *Check for variables with large numbers of missing values.* Make sure that the missing values are not the result of a data-entry or editing error that could be repaired. Any variable with 10 per cent or more of the values missing should be used with caution since this usually indicates a problem with the structure of the questionnaire or with the interviewers' understanding of how to administer the questionnaire. If the proportion of missing values is very high, you may decide not to use the variable in the analysis at all.
- *Check for variables with large numbers of 'Doesn't know' or 'Other' answers.* Depending on the question, 'Doesn't know' responses can indicate that the respondents had difficulty understanding the question. High proportions of 'Other' answers often indicate that the questionnaire did not account for the most common responses. Sometimes interviewers mistakenly code questions as 'Other' when the response actually fits into a category listed on the questionnaire. For variables with many 'Other' responses, it may be possible to retrieve the questionnaires to see if some of the responses can be recoded into existing categories.
- *Check for expected patterns in the data.* Some variables are expected to exhibit particular patterns. If your data deviate significantly from these expected patterns, you need to try to ascertain the reasons and be cautious in the analysis and interpretation. Unexpected patterns may result from faulty sample design, improper implementation of the sample, interviewer errors, or respondents' inaccurate answers.

The age distribution by sex of the population enumerated in the Household Listing Forms should be examined. If available, you can compare the age distribution from the MICS3 with other recent surveys or a census. In any case, there should be a smooth decline in the numbers of respondents with increasing age, especially in growing populations. Large fluctuations in the number of respondents at each year of age, with heaping of responses on particular ages (usually those ending in 0 or 5), are implausible and indicate poor quality. Since respondent eligibility for the Questionnaire for Individual Women is based on age, you should look for

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<sup>1</sup> During the fieldwork stage you should be aware of any deviations from sample targets as they develop. At the analysis stage, it is usually too late to correct these problems.



‘boundary effects’ in the age distribution. If there seems to be a disproportionately large number of women just outside the boundary of eligibility (that is, aged 13-14 and aged 50-51), this may constitute evidence that eligible respondents were excluded during the fieldwork. The same would apply in the case of an excess in the number of children 5-6 years old, and may indicate out-transference of children to avoid the administration of the Questionnaire for Children Under Five. Also, the number of males and females under age five should be roughly the same.

- *Decide on basic background variables and their groupings.* In the tables that will be produced for the survey reports (see Appendix Seven), results are usually reported according to a set of standard background variables. Most often, these will include geographic areas, level of education, urban/rural residence, sociocultural groups and socio-economic levels. For geographic areas, the sample design will determine the lowest administrative or geographic unit at which it is feasible to display results, but you may decide to group these into larger units for most tables. For education, the categories will vary according to the educational system and overall levels of education in the country, but will usually be broken down into: no education, primary, secondary and higher.
- *Decide on minimum sample sizes for displaying results.* Depending on the overall size of your sample, some tabulation may yield cells that are based on very small numbers of cases. This may happen, for example, when you are tabulating results by categories of background variables in which relatively few respondents fall (for example, women with higher education, or a specific ethnic group). These estimates will not be reliable and should not be shown. In general, it is not advisable to present results based on (that is, with a denominator of) fewer than 25 unweighted cases. For some estimates, such as maternal mortality ratios, the margins of error are known to be very high with sample sizes in the range recommended for MICS3, and you will only be able to present national-level estimates.

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**The margin of error for estimates by background variables will usually be greater (in some cases, much greater) than the error around national-level estimates. Avoid the temptation to break down the results into narrow categories.**

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## **PRODUCING A PRELIMINARY REPORT**

The primary objectives of the preliminary report are to convey the main results of the survey quickly and to stimulate interest in the current situation among government agencies, non-governmental organizations (NGOs), other multilateral donors, the press and the general public. You should aim to produce a 15-20 page preliminary report within 1 month to 6 weeks following the end of fieldwork.

A template for the preliminary report will be available at [www.childinfo.org](http://www.childinfo.org) to facilitate its production in each country. Countries will be required to produce their preliminary reports by taking into account the style, structure and contents of the preliminary report template.

The preliminary report is a brief and early version of the full technical report. Sections that should be included in the report are:

- Background and objectives of the survey
- Results
- Sample and fieldwork methodology.

All of the sections, except the results, can be written as the survey operation progresses. Once the data are analysed, all that will remain to do will be to add the tables containing the indicators.

### **BACKGROUND AND OBJECTIVES OF THE SURVEY**

In this section (which may consist of just a few paragraphs), you should list the major objectives of the survey. A sentence or two about how the MICS3 findings fit into an overall plan to assess the situation in the country would be appropriate. In this context, you may consider mentioning national development strategies, poverty reduction strategies, national action plans for children, the Millennium Development Goals, the World Fit for Children goals, the UNICEF Country Programme, UN Development Assistance Framework, and reporting on the Convention on the Rights of the Child and the Convention on the Elimination of All Forms of Discrimination against Women. You should also provide a list of institutions participating in the survey and the sources of funding. You should emphasize that the results in the report are preliminary and that a full report will be produced at a later date.

### **RESULTS**

It may be difficult to select the set of findings to include in the preliminary report. Since the objective of the preliminary report is to present initial results quickly, it is not advisable to include the more complicated indicators until you have had a chance to fully evaluate the quality of the data and the interpretation of the results. The tables that are recommended for inclusion in the preliminary report are specified in Appendix Seven.

At this stage, there will most likely be interest in comparing the results from the survey with results from a previous MICS or other data sources to assess trends. However, at this point in the analysis process, it is premature to report on trends. Trend analysis requires a thorough understanding of the sample coverage, methodology and operational definitions used in the data sources being compared. Furthermore, an estimate of the sampling errors surrounding the estimates from each data source is necessary to assess the statistical significance of any observed changes. For these reasons, presenting trend data in the preliminary report is not recommended.

### **SAMPLE AND METHODOLOGY**

It is important to have a section on methodology, even in the preliminary report. A detailed description of the sampling procedures and fieldwork can wait for the full report. However, a basic description of the survey process, including documentation of any major problems, is an expected component of rigorous survey reporting and gives credibility to the results. This section should include information on:

- The sample design
- Response rates
- The questionnaires
- The fieldwork and field staff
- Processing of data.

An example of a methodology section for a preliminary report is given in Table 8.1.

### **CIRCULATION OF THE PRELIMINARY REPORT AND DISSEMINATION OF THE FINDINGS**

The preliminary report should be distributed to relevant government institutions, NGOs, donors and the press. In addition to circulating the report, it may be advantageous to present the results at a press conference or review meeting to which you have invited representatives of key agencies and the media. In order to ensure that survey findings are accurately reported, a press release should be prepared summarizing the main results. It is also useful to make the report available on the Internet to expand its reach to a wider audience.

**Table 8.1****Example of a Sample and Methodology Section for the Preliminary Report**

The sample for the [country] Multiple Indicator Cluster Survey (MICS) was designed to provide estimates of health indicators at the national level, for urban and rural areas and for four regions: north, south, east and west. The sample was selected in two stages. Within each region, 50 census enumeration areas were selected with probability proportional to size. Within the 200 selected enumeration areas, a systematic sample of 6,000 households was drawn. Three of the selected enumeration areas were not visited because they were inaccessible during the fieldwork period. The sample was stratified by region and is not self-weighting. For reporting national-level results, sample weights are used.

In addition to a household questionnaire, questionnaires were administered in each household to women aged 15-49 and for children under age five. The questionnaires are based on the MICS3 model questionnaire. From the English version, the questionnaires were translated into four languages: A, B, C and D. The questionnaires were pre-tested in September 2005. Based on the results of the pre-test, modifications were made to the wording and translation of the questionnaires.

The field staff were trained for 12 days in early January 2006. The data were collected by nine teams, each comprising four female interviewers, one editor, one driver and a supervisor. The fieldwork began in February 2006 and concluded in March 2006.

Of the 6,000 households selected for the sample, 5,880 were found to be occupied. Of these, 5,557 were successfully interviewed for a household response rate of 94.5 per cent. In the interviewed households, 5,200 eligible women (aged 15-49) were identified. Of these, 5,000 were successfully interviewed, yielding a response rate of 96 per cent. The response rate for the Questionnaire for Children Under Five was 94 per cent. Mothers/caretakers of 2,125 children under five were successfully interviewed, from among 2,260 children under five identified in the interviewed households.

## PRODUCING THE FULL TECHNICAL REPORT

The full technical report will allow you to present your data in the most accurate and useful way. It will also give you the option of contrasting and comparing the findings from MICS3 with other sources of data in the country. The report will become an important reference tool within your country and will be widely cited for several years.

The full technical report is also essential if your survey results are to be used internationally. The report will enable readers to judge the technical aspects of the survey operation, and to evaluate for themselves the quality of the data it produced (and upon which your results are based). These surveys must produce results that can withstand the heat of intense scrutiny and international comparison. For this reason, it is important to give all interested parties the information necessary to evaluate your results, and to be clear and transparent about the strengths and weaknesses of the data.

The technical report is the document governments will use for international reporting. Technical reports should be drafted in close collaboration with UNICEF, and copies of the report should be transmitted to all interested parties.

The report will have several chapters and should also include an executive summary.

Note that some of the material written for the preliminary report can be reused in the full report. The recommended chapters are:

- Executive summary
- Introduction and background
- Data quality and sample characteristics
- Results (with sections by topic)
- Sample design and implementation (including sampling errors)
- Survey instruments.

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**In the full report, it is useful to include a simple table listing the MICS indicators and the survey results for each, highlighting those that relate to the Millennium Development Goals. Place the table in a prominent place, such as the inside front cover of the report or in the executive summary.**

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A template for the full technical report will be available at [www.childinfo.org](http://www.childinfo.org). As with the preliminary report, countries will be required to produce their full technical reports by taking into account the style, structure and contents of the template.

The following three points can be crucial to the successful completion and credibility of the full technical report (as well as the preliminary report): First, major time gains are possible if report writing is started early, beginning with those sections that can be drafted before the completion of fieldwork. Report writing can therefore be an ongoing process, which will allow you to concentrate on survey results at a later stage and to review sections that were drafted earlier. Second, it is important that members of the Steering Committee as well as all organizations supporting the survey are made aware of the survey results before publication. Agreement must also be reached on the handling of sensitive issues, such as attribution and authorship, including how each of the supporting organizations will be made visible and acknowledged, and how and when the report will be launched. Third, the logistics of production, including proofreading, translation (if applicable), picture and diagram production, printing and print run, should be planned well in advance.

### **THE EXECUTIVE SUMMARY**

After the preface, table of contents and other front matter, your full technical report should begin with an executive summary (see Table 8.2). Keep the executive summary short; it should not exceed a few pages. It should highlight the results of the survey, but contain more descriptive and comparative information than technical data. Be absolutely sure of your findings before you disseminate the summary, since policy decisions will likely be made on the basis of this document. You may wish to include a few well-designed and simple diagrams, since these often have more impact than long lists of numbers.

The executive summary is a tool for introducing the indicators to a wide audience. It can also be used to explain to policy makers the quality of previous information available on these indicators. In many countries, some indicators have never been measured at the national level. Your presentation of results to policy makers should make this clear. The presentation should help to stimulate debate and lead to programmatic decisions when results indicate that action is needed.

**Table 8.2**  
**Items to Include in an Executive Summary**

- Purpose of the survey
- A brief description of the survey steps
- Summary of the main results
- Main recommendations.

## **INTRODUCTION AND BACKGROUND**

The introductory chapter serves to document the objectives of the survey and the background against which the survey results will be seen and understood. Remember that many of the readers of the report may not be familiar with your country. Explain the reasons for conducting the survey. Discuss the needs for reporting on the World Fit for Children and Millennium Development Goals. The chapter should also contain some background information on previous data collection exercises conducted in the country, highlight gaps in previous data collection and explain how MICS3 fits into the overall monitoring system. If a previous MICS has been carried out in your country, note this also. Make reference to the preliminary report and to the global MICS3 project.

You may also decide to include in this chapter some basic demographic and health information on the country. For example, there may be significant and persistent regional differentials in health outcomes of which the reader should be aware. Also, make sure to delineate any significant events that may have affected the results, such as civil unrest, a natural disaster or economic decline.

## **SURVEY METHODOLOGY**

In this chapter, describe fully all of the steps involved in the design and implementation of the survey. It can be organized in much the same way as the methodology section of the preliminary report, but will document the survey process in greater detail. The chapter should contain descriptions of the survey steps listed in Table 8.3. It should also include information on problems encountered in any of the steps, how they were addressed, and timelines for implementing these activities.

**Table 8.3**  
**Elements of the Survey Methodology Chapter**

Survey organization	Survey management Steering committee Organizations that carried out the survey Organizations that funded the survey External technical assistance
Sample design (full technical details to be included in an appendix)	Sample frame utilized, strata, stages, number and type of units selected at each stage, oversampling, response rates
Survey instruments (copies of instruments to be included in an appendix)	Types of questionnaires used and data collected with each, modules included, revisions to standard instruments, translations, pre-test
Data collection	Number and type of field staff, content and dates of training of field staff, dates of fieldwork, supervision, any major problems encountered
Data processing	Number and type of data processing staff, software used, dates of data entry and editing

## DATA QUALITY AND SAMPLE CHARACTERISTICS

This chapter should include a discussion of the quality of the data produced and the basic characteristics of the sample population. This is important since it demonstrates that you have examined the data carefully and are equipped to interpret the main findings in the context of this examination. As discussed above, some basic checks of the data quality should be performed prior to tabulating the indicators. The basic tabulations for performing these checks and your assessment of their implications should be included in this chapter.

At the minimum, you should report: the rate of non-response for households and for the Questionnaires for Individual Women and for Children Under Five, age and sex distributions, and background characteristics of the respondents. In addition, specific types of data-quality checks should be carried out prior to calculating child mortality rates.<sup>2</sup> If you conducted a focus group discussion or group interview with the survey interviewers after the fieldwork, this is an appropriate place to include any insights they may have provided that could have affected the quality of the data, such as questions that the respondents had trouble answering or seemed reluctant to answer.

<sup>2</sup> These quality checks are covered in two sources: Patricia H. David, Leila Bisharat, Alan G. Hill and Steve Bennett, *Measuring Childhood Mortality: A Guide for Simple Surveys*, UNICEF Amman, 1990; and United Nations, *Step-by-step Guide to the Estimation of Child Mortality*, Department of Economic and Social Affairs, Population Studies No. 107, 1990 (accompanying program: *Qfive-United Nations Program for Child Mortality Estimation*).



The chapter should also include a description of the basic socio-economic characteristics of the sample. This serves as both background for the reader and a basic check on sample implementation. For example, you should report on the percentage of surveyed households in urban areas. If this percentage is significantly lower than expected, it may indicate a problem with the implementation of the sample in urban areas. It will also provide the reader with a sense of the urban/rural composition of the country. Sample tables for basic characteristics are shown in Appendix Seven.

## RESULTS

The results chapter of the report should be organized into sections by topic. The recommended sections are:

- Child mortality
- Nutrition
- Child health
- Environment
- Reproductive health
- Child development
- Education
- Child protection
- HIV/AIDS, Sexual Behaviour and Orphaned and Vulnerable Children

A detailed set of sample tabulations according to sections is presented in Appendix Seven. Taken together, these tabulations provide basic information on all the indicators that could be measured by MICS, with the inclusion of all additional and optional modules. Analysis issues regarding some of the more complicated indicators will be posted at [www.childinfo.org](http://www.childinfo.org). If you make modifications, additions or deletions to the model MICS questionnaires, the sample tabulations should be adapted as necessary. Some results are well suited to presentation by graphics, particularly if you want to highlight differences in the value of indicators among groups or geographic units. Suggestions for graphic representation of some of the findings will be provided in the report template for the full technical report, which will also be available at [www.childinfo.org](http://www.childinfo.org).

For each section of the report, the discussion of the results should begin with a brief description of the programmes and policies that are relevant to the information presented. For example, in the section on vitamin A, you would describe vitamin A supplementation programmes implemented in the country. In the section on immunization coverage, you would outline the recommended vaccination schedule in the country, significant elements of the programme, and whether National Immunization Days have been held. In the section on education, describe the education system in the country.

For each table, you should be sure that the method of calculation and the data used in the calculations are clear to the reader. In the case of simple percentage calculations, it may not be necessary to explain this in great detail. In other cases, however, such as the tables on immunization coverage and nutritional status, an explanation of the method used for arriving at the results is crucial.

Next, report the value of each indicator. If needed, report the confidence intervals. Point out subgroups or regions that may be lagging behind others. Describe patterns across age, education and socio-economic groups, particularly if these patterns are consistent and substantial.

Try to identify any known problems in the implementation of health programmes that may help in interpreting the results, such as problems in vaccine or contraceptive procurement. Acknowledge puzzling or inconsistent results. A comprehensive analysis of such results may have to be deferred to later analysis.

The analysis of trends in the indicators is also best deferred until a full assessment of the relevant data can be undertaken. Such an assessment requires a thorough examination of previous data sources, data-collection methodologies and calculations of previous estimates. While it is tempting to over-interpret small changes in indicators between surveys, it is important to keep in mind that drawing reliable, defensible conclusions about trends can be time-consuming and difficult.

### **SAMPLE DESIGN AND IMPLEMENTATION**

Complete documentation of the sample design and implementation should be provided. This is an area in which many surveys and survey reports are deficient. By fully disclosing the sampling scheme and its results, you will demonstrate confidence in your results. Items that should be described in the documentation are: the population coverage, the sampling frame used, whether and how the sampling frame was updated, sample selection procedures with specification of strata, selection probabilities, sampling weights and sampling errors for selected indicators and for selected reporting domains (such as regions and urban-rural areas).

### **QUESTIONNAIRES**

Be sure to include a copy of the survey questionnaires in the report. These are valuable resources for readers who are evaluating the survey results or comparing them to results from other surveys. They also complete the documentation of the survey methodology and may be useful for researchers conducting surveys in the future.

Finally, circulate an early draft of the report to all collaborators and others who may be able to provide valuable comments before it is published.

### **CIRCULATION OF THE FULL REPORT AND DISSEMINATION OF THE FINDINGS**

The full technical report of the survey should be distributed to key government agencies, NGOs, donors, researchers and the press. The report may also be circulated regionally and internationally via UNICEF and at meetings and conferences. All major participants in the survey who were involved in the planning, implementation or analysis stages can be invited to participate in a meeting to present and discuss the main findings. Meetings and presentations that focus on specific topics can also be arranged. This publicity may result in additional interest in the survey results and lead to additional analysis of the data.

It should not be forgotten that the production of a full technical report – though a major accomplishment in itself – is not the final outcome of MICS3. The ultimate goal is to stimulate actions that will impact the situation of children, both at national and subnational levels, through the dissemination and discussion of survey findings among relevant audiences. Appropriate resources (both financial and human) should be allocated to reach such audiences. A survey report that is not used by policy makers and administrators at various levels, and that has little or no impact on public policies and programmes, represents a lost opportunity.

To ensure that MICS3 results are disseminated effectively and systematically, it is important to develop a utilization plan before survey results become available. The plan should include, but not be limited to, the following:

- At the international level, MICS3 reports should be disseminated to relevant international organizations. If possible, they should also be presented and discussed at the headquarters and regional offices of UNICEF and other UN agencies.
- At the national level, MICS3 findings should be presented and discussed before parliament and various ministers, technical teams of relevant ministries, civil society organizations, academia, UN and other international agencies, and political and religious leaders. This will help to ensure that MICS3 results are translated into improvements in the situation of women and children.
- At the subnational level, MICS3 results should be disseminated to local authorities, such as governors and mayors, to technical teams of various technical departments, local civil society organizations, local media representatives, traditional chiefs and religious leaders. Healthy competition can be stimulated by comparing findings from one region with the national average or with a neighbouring region that may be better off.

For each action, a responsible institution should be identified, preferably with one focal point. A time frame and budget for each activity should be created.

Various tools can be used for disseminating the survey results. The most important in terms of their reach and scope are websites and CD-ROMs that contain the full data sets, manuals, questionnaires in all relevant languages, presentations and reports. This will enable universities,

research institutions and other interested organizations (both governmental and non-governmental) to have free access to survey data and to the tools needed to carry out further analysis. Such spin-offs will multiply the impact of survey findings. To accomplish this goal, careful archiving of all survey material is essential.

MICS3 results should be easy to access. Summary reports, ready-made presentation files, pocket cards and posters are among the tools that can be used to inform the general public about the survey and to effectively disseminate results.

An important utilization and advocacy tool is DevInfo. DevInfo is a “database system which contains indicators, time periods, and geographic areas organized to monitor global and national commitments to sustained human development.”<sup>3</sup> MICS3 results can be easily transferred into DevInfo and highlighted through the use of graphs and maps.

In addition to the utilization plan, which will be implemented soon after the main survey results become available, it is also useful to develop an advocacy plan. The advocacy plan should focus on increasing the chances that MICS3 results will influence public policies. It should take into account other advocacy plans for children in the country, and could be integrated into them. Specifically, you should: (a) identify the major violations of women’s and children’s rights, including disparities among different groups of the population; (b) identify where further analysis of MICS3 results is needed in order to understand the causes and correlates of detected problems; (c) draw up an advocacy plan, based on existing MICS3 findings and additional analyses, which can be used to influence policy; and (d) set out specific advocacy actions targeted to various groups.

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<sup>3</sup> [www.devinfo.org](http://www.devinfo.org)

### ANALYSIS BEYOND THE FULL REPORT

MICS3 is designed primarily for reporting on indicators for the World Fit for Children and the Millennium Development Goals, as well as other international commitments. The full technical survey report described above fulfils this primary aim, but data collected in MICS3 can also be used for statistical analysis beyond that contained in the survey report. Collecting survey data is a costly and labour-intensive activity. In order to justify this investment, the data collected should be exploited as fully as possible.

As you are writing the full report, ideas for further analysis will no doubt arise. Make note of these for possible future research after the publication of the survey report. Some examples of further studies are shown in Table 8.4.

**Table 8.4**  
**Topics for Further Analysis**

- Investigation of puzzling or surprising results
- Analysis of data quality
- Analysis of trends
- Identification of 'most vulnerable' children
- Profile of children by socio-economic status
- In-depth look at a subgroup, such as adolescent mothers
- Multivariate analyses of determinants of child health or schooling outcomes.

**Table 8.5**  
**Checklist for Reporting Your Results**

**Produce a preliminary report.**

*Include:*

- Objectives of the survey
- Major results and discussion
- Sample and fieldwork methodology.

**Produce a full technical report.**

*Include:*

- An executive summary
- Objectives of the survey
- Details of the training, pre-test and fieldwork
- Data entry and editing procedures
- An evaluation of data quality
- The results
- An interpretation of the results, comparing them with results from other sources and with data from neighbouring countries
- Details of the sampling techniques used
- A copy of the questionnaire used
- Conclusions, recommendations and acknowledgements.

**Make the reports of survey results fully accessible to all organizations that might make use of them.**

Ensure the widest possible dissemination of results by calling discussion meetings with donors, ministry officials and community leaders, and by ensuring press coverage of these meetings.

# APPENDIX ONE

## INDICATORS FOR GLOBAL REPORTING

The global indicators on the following pages are included in the third round of the Multiple Indicator Cluster Survey. The indicators were selected because data relevant to them can be collected through household surveys and because they respond to the monitoring needs for goals established in the Millennium Declaration, the World Fit for Children Declaration and Plan of Action, the World Summit for Children and a number of other global commitments.

A brief description is provided of the numerator and denominator of each indicator. The international commitments to which each of the indicators apply is noted using the following abbreviations:

WSC	World Summit for Children
MDG	Millennium Development Goal, and Indicator (I)
WFFC	World Fit for Children Declaration and Plan of Action, Major Goal (MG) or Strategy/Action (SA)
Abuja	The Abuja Declaration of the African Summit on Malaria
UNGASS	United Nations General Assembly Special Session on HIV/AIDS





## DEFINITIONS OF INDICATORS FOR GLOBAL REPORTING

INDICATOR	NUMERATOR	DENOMINATOR	WSC	MDG	WFFC	Other
HEALTHY LIVES						
1. <i>Under-five mortality rate</i> <sup>1</sup>	Probability of dying by exact age 5 years		1	4 I 13	MG A	
2. <i>Infant mortality rate</i> <sup>1</sup>	Probability of dying by exact age 1 year		1	4 I 14	MG A	
3. <i>Maternal mortality ratio</i> <sup>2</sup>	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)	2	5 I 16	MG B	
4. <i>Skilled attendant at delivery</i>	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 <sup>3</sup>	Total number of women surveyed aged 15-49 years with a birth in the 2 years preceding the survey <sup>4</sup>	11	5 I 17	MG B SA 6	
5. <i>Institutional deliveries</i>	Number of women aged 15-49 years with a birth in the 2 years preceding the survey that delivered in a health facility <sup>5</sup>	Total number of women surveyed aged 15-49 years with a birth in 2 years preceding the survey <sup>6</sup>			MG B SA 6	
6. <i>Underweight prevalence</i>	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 <sup>7</sup>	3	1 I 4	MG C	
7. <i>Stunting prevalence</i>	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 <sup>8</sup>	3		MG C	

<sup>1</sup> The under-five and infant mortality rates are obtained via a calculation that uses as input a table on numbers of women, children ever born, and proportion dead by age of women. Numbers for this table are obtained from the Child Mortality module.

<sup>2</sup> Calculated via indirect methods.

<sup>3</sup> Maternal and Newborn Health module, MN7=A, B, C.

<sup>4</sup> Child Mortality module, total women with a birth in the last 2 years, CM12 = Yes.

<sup>5</sup> Maternal and Newborn Health module, MN8=21-26 OR 31-36.

<sup>6</sup> See footnote 4.

<sup>7</sup> Anthropometry module, AN1. Children with out-of-range weights for age are omitted from calculations.

<sup>8</sup> Anthropometry module, AN2. Children with out-of-range heights for age are omitted from calculations.

INDICATOR	NUMERATOR	DENOMINATOR	WSC	MDG	WFFC	Other
HEALTHY LIVES						
<b>8. Wasting prevalence</b>	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 <sup>9</sup>	3		MG C	
<b>9. Low-birthweight infants</b>	Number of last live births in the 2 years preceding the survey weighing below 2,500 grams <sup>10</sup>	Total number of last live births in the 2 years preceding the survey <sup>11</sup>	12		MG C	
<b>10. Infants weighed at birth</b>	Number of last live births in the 2 years preceding the survey that were weighed at birth <sup>12</sup>	Total number of last live births in the 2 years preceding the survey <sup>13</sup>			MG C	
<b>11. Use of improved drinking water sources</b>	Number of household members living in households <sup>14</sup> using improved sources <sup>15</sup> of drinking water	Total number of household members in households surveyed	4	7 I 30	MG D SA 23	
<b>12. Use of improved sanitation facilities</b>	Number of household members <sup>16</sup> using improved sanitation facilities <sup>17</sup>	Total number of household members in households surveyed	5	7 I 31	MG D SA 23	
<b>13. Water treatment</b>	Number of household members using water that has been treated <sup>18</sup>	Total number of household members in households surveyed			SA 23	

<sup>9</sup> Anthropometry module, AN1 and AN2. Children with out-of-range weights for height are omitted from calculations.

<sup>10</sup> Maternal and Newborn Health module, MN11. See [www.childinfo.org](http://www.childinfo.org) for further information on the tabulation of prevalence of low birthweight.

<sup>11</sup> See footnote 4.

<sup>12</sup> Maternal and Newborn Health module, MN10=1.

<sup>13</sup> See footnote 4.

<sup>14</sup> This indicator is obtained by weighting the number of households by the number of household members (HH11).

<sup>15</sup> Water and Sanitation module, WS1=1, 12, 13, 21, 31, 41, 51 OR (WS1=91 AND WS2=11, 12, 13, 21, 31, 41, 51).

<sup>16</sup> See footnote 14.

<sup>17</sup> Water and Sanitation module, WS7=11, 12, 13, 21, 22, 31.

<sup>18</sup> Water and Sanitation module, WS6=A, B, D, E.

INDICATOR	NUMERATOR	DENOMINATOR	WSC	MDG	WFFC	Other
HEALTHY LIVES						
<i>14. Disposal of child's faeces</i>	Number of children under age three whose (last) stools were disposed of safely <sup>19</sup>	Total number of children under age three surveyed			SA 23	
<i>15. Exclusive breastfeeding rate</i>	Number of infants aged 0-5 months that are exclusively breastfed <sup>20</sup>	Total number of infants aged 0-5 months surveyed	16		SA 5	
<i>16. Continued breastfeeding rate</i>	Number of infants aged 12-15 months, and 20-23 months, that are currently breastfeeding <sup>21</sup>	Total number of children aged 12-15 months and 20-23 months surveyed	16		SA 5	
<i>17. Timely complementary feeding rate</i>	Number of infants aged 6-9 months that are receiving breastmilk and complementary foods <sup>22</sup>	Total number of infants aged 6-9 months surveyed			SA 5	
<i>18. Frequency of complementary feeding</i>	Number of infants aged 6-11 months that receive breastmilk 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) <sup>23</sup>	Total number of infants aged 6-11 months surveyed			SA 5	
<i>19. Adequately fed infants</i>	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 <sup>24</sup>	Total number of infants aged 0-11 months surveyed			SA 5	

<sup>19</sup> Care of illness module, CA13=1 OR 2.

<sup>20</sup> Children still breastfed (Breastfeeding module, BF2=1) AND no other food given (answer must be 2 (No) for BF3B, C, D, E, F, G and H; only BF3A =1 is permissible).

<sup>21</sup> Breastfeeding module, BF2=1.

<sup>22</sup> Children still breastfed (Breastfeeding module, BF2=1) AND complementary foods given in the last 24 hours (BF3H=1), even if also given other breastmilk substitutes.

<sup>23</sup> Breastfeeding module, (BF2=1 AND BF5>=2) for infants aged 6-8 months OR (BF2=1 AND BF5>=3) for infants aged 9-11 months.

<sup>24</sup> See footnotes 20 and 23.

INDICATOR	NUMERATOR	DENOMINATOR	WSC	MDG	WFFC	Other
HEALTHY LIVES						
<b>20. Antenatal care</b>	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 <sup>25</sup>	Total number of women surveyed aged 15-49 years with a birth in the 2 years preceding the survey <sup>26</sup>	9 11		SA 6	
<b>21. Contraceptive prevalence</b>	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) <sup>27</sup>	Total number of women aged 15-49 years that are currently married or in union <sup>28</sup>	10	6 I 19c	SA 1 SA 3	
<b>22. Antibiotic treatment of suspected pneumonia</b>	Number of children aged 0-59 months with suspected pneumonia in the previous 2 weeks receiving antibiotics <sup>29</sup>	Total number of children aged 0-59 months with suspected pneumonia in the previous 2 weeks <sup>30</sup>			SA 11	
<b>23. Care-seeking for suspected pneumonia</b>	Number of children aged 0-59 months with suspected pneumonia in the previous 2 weeks that are taken to an appropriate health provider <sup>31</sup>	Total number of children aged 0-59 months with suspected pneumonia in the previous 2 weeks <sup>32</sup>	24		SA 11	
<b>24. Solid fuels</b>	Number of residents in households that use solid fuels (wood, charcoal, crop residues and dung) as the primary source of domestic energy to cook <sup>33</sup>	Total number of residents in households surveyed		7 I 29	SA 11	

<sup>25</sup> Maternal and Newborn Health module, MN2=A, B, C.

<sup>26</sup> See footnote 4.

<sup>27</sup> Marriage module, MA1=1 OR 2 AND Contraception module, CP2=1.

<sup>28</sup> Marriage module, MA1=1 OR 2.

<sup>29</sup> Care of illness module, CA5=1 AND CA6=1 AND (CA7=1 OR 3) AND CA11=A.

<sup>30</sup> Care of illness module, CA5=1 AND CA6=1 AND (CA7=1 OR 3).

<sup>31</sup> Care of illness module, CA5=1 AND CA6=1 AND (CA7=1 OR 3) AND having seen an appropriate health provider, CA8=1 AND (CA9=A-H, I-J, L-O) (excludes pharmacy).

<sup>32</sup> See footnote 30.

<sup>33</sup> Household Characteristics module, HC6 = 06, 07, 08, 09, 10, OR 11.

INDICATOR	NUMERATOR	DENOMINATOR	WSC	MDG	WFFC	Other
HEALTHY LIVES						
25. Tuberculosis immunization coverage	Number of children aged 12-23 months receiving BCG vaccine before their first birthday <sup>34</sup>	Total number of children aged 12-23 months surveyed	22		SA 7	
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	22		SA 7	
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	22		SA 7	
28. Measles immunization coverage	Number of children aged 12-23 <sup>35</sup> months receiving measles vaccine before their first birthday	Total number of children aged 12-23 <sup>35</sup> months surveyed	22	4 I 15	SA 7	
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			SA 7	
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			SA 7	
31. Fully immunized children	Number of children aged 12-23 <sup>36</sup> months receiving DPT1-3, OPV-1-3, BCG and measles vaccines before their first birthday	Total number of children aged 12-23 <sup>36</sup> months surveyed			SA 7	

<sup>34</sup> Total number of children aged 12-23 months vaccinated with BCG before their first birthday, as validated by a card or mother's recall. To estimate the number of children without a card to have received the vaccine before their first 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 their first birthday. The same estimation approach is also used for indicators on Polio, DPT, measles, HepB, and yellow fever vaccines (indicators 26-30).

<sup>35</sup> In countries where measles vaccination is typically given at 15 months of age, such as in Latin America, the age group of 18-29 months is used.

<sup>36</sup> See footnote 35.

INDICATOR	NUMERATOR	DENOMINATOR	WSC	MDG	WFFC	Other
HEALTHY LIVES						
<b>32. Neonatal tetanus protection</b>	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 <sup>37</sup>	Total number of women surveyed aged 15-49 years with a birth in the year preceding the survey <sup>38</sup>	22		SA 7	
<b>33. Use of oral rehydration therapy (ORT)</b>	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 <sup>39</sup>	Total number of children aged 0-59 months with diarrhoea <sup>40</sup> in the previous 2 weeks	25		SA 11	
<b>34. Home management of diarrhoea</b>	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 <sup>41</sup>	Total number of children aged 0-59 months with diarrhoea in the previous 2 weeks <sup>42</sup>	23		SA 11	
<b>35. Received ORT or increased fluids and continued feeding</b>	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 <sup>43</sup>	Total number of children aged 0-59 months with diarrhoea in the previous 2 weeks <sup>44</sup>			SA 11	

<sup>37</sup> Tetanus Toxoid module: numerator is all mothers with live births in the previous year with

(1) two TT doses during the pregnancy (TT3>=2) OR

(2) one TT dose during the pregnancy and at least one TT dose prior to the pregnancy (TT3=1 AND TT6>=1) OR

(3) at least two TT doses prior to the pregnancy of which the last dose was less than 3 years before the birth (TT6>=2 AND (CM11-TT7(TT8))<3) OR

(4) with three doses within the 5 years before the pregnancy (TT6>=3 AND (CM11-TT7(TT8))<5) OR

(5) with four doses with the last dose less than 10 years before the pregnancy (TT6>=4 AND ((CM11-TT7(TT8))<10) OR

(6) with five doses or more ever (TT6>=5).

<sup>38</sup> Birth in the year preceding the survey: that is, if the date of the interview (Women's Information Panel, WM6) minus the date of birth of the child (Child Mortality module, CM11) is less than 1 year.

<sup>39</sup> Care of illness module, CA1=1 AND (CA2A=1 OR CA2B=1 OR CA2C=1).

<sup>40</sup> If CA1=8 (don't know if child has had diarrhoea in past 2 weeks), the child is omitted from subsequent calculations.

<sup>41</sup> Care of illness module, CA1=1 AND CA3 = 3 AND (CA4=3, 4, OR 5).

<sup>42</sup> See footnote 39.

<sup>43</sup> Care of illness module, CA1=1 AND ((CA2A=1 OR CA2B=1 OR CA2C = 1) OR CA3 = 3) AND (CA4=3, 4, OR 5).

<sup>44</sup> See footnote 39.

INDICATOR	NUMERATOR	DENOMINATOR	WSC	MDG	WFFC	Other
HEALTHY LIVES						
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 <sup>45</sup>	Total number of households surveyed			SA 12	Abuja
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 <sup>46</sup>	Total number of children aged 0-59 months surveyed		6 I 22	SA 12	Abuja
38. Under-fives sleeping under mosquito nets	Number of children aged 0-59 months that slept under a mosquito net the previous night <sup>47</sup>	Total number of children aged 0-59 months surveyed			SA 12	
39. Antimalarial treatment (under-fives)	Number of children aged 0-59 months reported to have had fever in the previous 2 weeks that were treated with an appropriate antimalarial within 24 hours of onset <sup>48</sup>	Total number of children aged 0-59 months reported to have had fever in the previous 2 weeks <sup>49</sup>		6 I 22	SA 12	

<sup>45</sup> Insecticide-treated Net module:

- (1) long-lasting net (TN3L1=1 OR TN3L2=1) OR
- (2) pre-treated net obtained in the previous 12 months (TN3P1=1 OR TN3P2=1) AND TN6<12) OR
- (3) other net obtained in previous 12 months and pre-treated (TN3O1=1 OR TN3O2=1 OR TN3X=1 OR TN3Z=1) AND TN5=1 AND TN6<12) OR
- (4) pre-treated or other net treated in the previous 12 months (TN3P1=1 OR TN3P2=1 OR TN3O1=1 OR TN3O2=1 OR TN3X=1 OR TN3Z=1) AND TN7=1 AND TN8<12)).

<sup>46</sup> Malaria module:

- (1) long-lasting net (ML12=11 OR 12) OR
- (2) pre-treated net obtained in the previous 12 months (ML12=21 OR 22) AND ML11<12) OR
- (3) other net obtained in the previous 12 months and already treated (ML11<12 AND ML13=1) OR
- (4) net was treated within the last 12 months (ML14=1 AND ML15 <12).

<sup>47</sup> Malaria module, ML10=1.

<sup>48</sup> Malaria module, ML1=1 AND (ML4=A-H OR ML7=A-H) AND (ML9=0 OR 1).

<sup>49</sup> Malaria module, ML1=1.

INDICATOR	NUMERATOR	DENOMINATOR	WSC	MDG	WFFC	Other
HEALTHY LIVES						
<i>40. Intermittent preventive malaria treatment (pregnant women)</i>	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 <sup>50</sup>	Total number of women that have had a live birth within the 2 years preceding the survey <sup>51</sup>			SA 12	Abuja
<i>41. Iodized salt consumption</i>	Number of households with salt testing 15 parts per million or more of iodine/iodate <sup>52</sup>	Total number of households surveyed <sup>53</sup>	14		SA 22	
<i>42. Vitamin A supplementation (under-fives)</i>	Number of children aged 6-59 months receiving at least one high-dose vitamin A supplement in the previous 6 months <sup>54</sup>	Total number of children aged 6-59 months surveyed	15		SA 22	
<i>43. Vitamin A supplementation (post-partum mothers)</i>	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 <sup>55</sup>	Total number of women that had a live birth in the 2 years preceding the survey <sup>56</sup>	15		SA 22	

<sup>50</sup> Maternal and Newborn Health module for malaria-affected countries, MN6B=A AND MN6D>=2.

<sup>51</sup> See footnote 4.

<sup>52</sup> Salt iodization module, SI1=3.

<sup>53</sup> If a household has salt, but it is not tested (Salt Iodization module, SI1=7), these households are omitted from the denominator.

<sup>54</sup> Vitamin A module, VA1=1 AND VA2<6.

<sup>55</sup> Maternal and Newborn Health module, MN1=1.

<sup>56</sup> See footnote 4.



INDICATOR	NUMERATOR	DENOMINATOR	WSC	MDG	WFFC	Other
HEALTHY LIVES						
<b>44. Content of antenatal care</b>	Number of women with a live birth in the 2 years preceding the survey that received antenatal care during the last pregnancy <sup>57</sup>	Total number of women with a live birth in the 2 years preceding the survey <sup>58</sup>			SA 6	
<b>45. Timely initiation of breastfeeding</b>	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 <sup>59</sup>	Total number of women with a live birth in the 2 years preceding the survey <sup>60</sup>			SA 5	
<b>46. Support for learning</b>	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 <sup>61</sup>	Total number of children aged 0-59 months surveyed			SA 10	
<b>47. Father's support for learning</b>	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 <sup>62</sup>	Total number of children aged 0-59 months			SA 10	

<sup>57</sup> Maternal and Newborn Health module, proportions calculated separately: total number of women that were weighed, had their blood pressure taken, gave a urine sample, or gave a blood sample: MN3A=1; MN3B=1; MN3C=1; MN3D=1.

<sup>58</sup> See footnote 4.

<sup>59</sup> Maternal and Newborn Health module, MN13=000 (immediately) OR 100 (less than 1 hour).

<sup>60</sup> See footnote 4.

<sup>61</sup> Birth Registration and Early Learning module, sum of responses (BR8A-BR8F<>'Y') >=4.

<sup>62</sup> Birth Registration and Early Learning module, sum of responses (BR8A-BR8F='B') >=1.

INDICATOR	NUMERATOR	DENOMINATOR	WSC	MDG	WFFC	Other
HEALTHY LIVES						
48. Support for learning: children's books	Number of households with three or more children's books <sup>63</sup>	Total number of households surveyed			SA 10	
49. Support for learning: non-learning: children's books	Number of households with three or more non-children's books <sup>64</sup>	Total number of households surveyed			SA 10	
50. Support for learning: materials for play	Number of households with three or more materials intended for play <sup>65</sup>	Total number of households surveyed			SA 10	
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 <sup>66</sup>	Total number of children aged 0-59 months surveyed			SA 10	

<sup>63</sup> Child Development optional module, CE1>=3.

<sup>64</sup> Child Development optional module, CE2>=3.

<sup>65</sup> Child Development optional module, CE3 contains 3 or more of A, B, C, D.

<sup>66</sup> Child Development optional module, number of responses where CE4>00 or number of responses where CE5>00.

INDICATOR	NUMERATOR	DENOMINATOR	WSC	MDG	WFFC	Other
EDUCATION						
<i>52. Pre-school attendance</i>	Number of children aged 36-59 months that attend some form of early childhood education programme <sup>67</sup>	Total number of children aged 36-59 months surveyed	26		MG A	
<i>53. School readiness</i>	Number of children in first grade that attended some form of pre-school the previous year <sup>68</sup>	Total number of children in the first grade surveyed <sup>69</sup>			MG A	
<i>54. Net intake rate in primary education</i>	Number of children of school-entry age that are currently attending first grade <sup>70</sup>	Total number of children of primary-school entry age surveyed	6		MG B	
<i>55. Net primary school attendance rate</i>	Number of children of primary-school age currently attending primary or secondary school <sup>71</sup>	Total number of children of primary-school age surveyed	6	2 16	MG B	
<i>56. Net secondary school attendance rate</i>	Number of children of secondary-school age currently attending secondary school or higher <sup>72</sup>	Total number of children of secondary-school age surveyed			MG C	
<i>57. Children reaching grade five</i>	Proportion of children entering the first grade of primary school that eventually reach grade five <sup>73</sup>		6	2 17	MG D	

<sup>67</sup> Birth Registration and Early Learning module, UF11=3-4 years AND BR6=1.

<sup>68</sup> Education module, ED6 Level=1, Grade=1 AND ED8 Level=0.

<sup>69</sup> Education module, ED6 Level=1, Grade=1.

<sup>70</sup> Select children of primary-school entry age (for example, HL5=6); Education module, ED4=1 AND ED6 Level=1, Grade=1.

<sup>71</sup> Select children of primary-school age (for example, HL5=6-11); Education module, ED6 Level=1 or 2.

<sup>72</sup> Select children of secondary-school age (for example, HL5=12-17); Education module, ED6 Level = 2 or 3.

<sup>73</sup> This indicator is calculated using transition probabilities for the cohort of children in the sample, which are derived from the Education module ED4 to ED8.

INDICATOR	NUMERATOR	DENOMINATOR	WSC	MDG	WFFC	Other
EDUCATION						
<b>58. Transition rate to secondary school</b>	Number of children that were in the last grade of primary school during the previous school year that attend secondary school <sup>74</sup>	Total number of children that were in the last grade of primary school during the previous school year surveyed <sup>75</sup>			MG C	
<b>59. Primary completion rate</b>	Number of children (of any age) attending the last grade of primary school (excluding repeaters) <sup>76</sup>	Total number of children of primary school completion age (age appropriate to final grade of primary school) surveyed <sup>77</sup>	6	2 17b	MG D	
<b>60. Adult literacy rate</b>	Number of women aged 15-24 years that are able to read a short simple statement about everyday life <sup>78</sup>	Total number of women aged 15-24 years surveyed	7	2 18	MG F	
<b>61. Gender parity index</b>	Proportion of girls in primary and secondary education <sup>79</sup>	Proportion of boys in primary and secondary education <sup>80</sup>		3 19	MG C	

<sup>74</sup> Education module, ED8 Level=1, Grade=(final grade of primary school, for example, 6) AND ED6 Level=2.

<sup>75</sup> Education module, ED8 Level=1, Grade=(final grade of primary school, for example, 6).

<sup>76</sup> Education module, ED6 Level=1, Grade=(final grade of primary school, or example, 6) AND ED8 Level=1, Grade<=>(final grade of primary school).

<sup>77</sup> Select children of the age appropriate to final grade of primary school, for example, HL5=11.

<sup>78</sup> Women's Information Panel, WM14=3 OR WM11=2 OR 3.

<sup>79</sup> Select girls, HL4=2, calculate net attendance rate using Education module, primary ED6=1; secondary ED6=2; higher ED6=3.

<sup>80</sup> Select boys, HL4=1, calculate net attendance rate using Education module, primary ED6=1; secondary ED6=2; higher ED6=3.

INDICATOR	NUMERATOR	DENOMINATOR	WSC	MDG	WFFC	Other
CHILD PROTECTION						
62. Birth registration	Number of children aged 0-59 months whose births are reported registered <sup>81</sup>	Total number of children aged 0-59 months surveyed			SA 1	
63. Prevalence of female genital mutilation/cutting (FGM/C)	Number of women aged 15-49 years that reported undergoing <u>any</u> form of genital mutilation/cutting <sup>82</sup>	Total number of women aged 15-49 years surveyed			SA 9	
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) <sup>83</sup>	Total number of women aged 15-49 years surveyed			SA 9	
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 <sup>84</sup>	Total number of women aged 15-49 years surveyed that have at least one living daughter <sup>85</sup>			SA 9	
66. Approval for FGM/C	Number of women aged 15-49 years favouring the continuation of female genital mutilation/cutting <sup>86</sup>	Total number of women aged 15-49 years surveyed			SA 9	

<sup>81</sup> Birth Registration and Early Learning module, BR1=1 OR BR2=1.

<sup>82</sup> Female Genital Mutilation/Cutting optional module, FG3=1.

<sup>83</sup> Female Genital Mutilation/Cutting optional module, FG4=1 AND FG6=1.

<sup>84</sup> Female Genital Mutilation/Cutting optional module, FG9>=01.

<sup>85</sup> Child Mortality module, CM4+CM6>=1.

<sup>86</sup> Female Genital Mutilation/Cutting optional module, FG16=1.

INDICATOR	NUMERATOR	DENOMINATOR	WSC	MDG	WFFC	Other
CHILD PROTECTION						
<b>67. Marriage before age 15 and age 18</b>	Number of women that were first married or in union by the exact age of 15 <sup>87</sup> and the exact age of 18, <sup>88</sup> by age groups	Total number of women aged 15-49 years and 20-49 years surveyed, by age groups			SA 9	
<b>68. Young women aged 15-19 years currently married or in union</b>	Number of women aged 15-19 years currently married or in union <sup>89</sup>	Total number of women aged 15-19 years surveyed			SA 9	
<b>69. Spousal age difference</b>	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 <sup>90</sup>	Total number of women aged 15-19 and 20-24 years surveyed that are currently married or in union <sup>91</sup>			SA 9	
<b>70. Polygyny</b>	Number of women in a polygynous union <sup>92</sup>	Total number of women aged 15-49 years surveyed that are currently married or in union <sup>93</sup>			SA 9	

<sup>87</sup> Marriage module, (MA6-WM8<15) OR (MA8<15). Calculate using century month codes (CMC) using analysis software. Disaggregate by age groups from 15-19 ... 45-49.

<sup>88</sup> Marriage module, (MA6-WM8<18) OR (MA8<18). Calculate using century month codes (CMC) using analysis software. Disaggregate by age groups from 20-24 ... 45-49.

<sup>89</sup> Marriage module, MA1=1 OR 2.

<sup>90</sup> Marriage module, MA2<=98 AND ((MA2-(WM6-WM8)>=10) OR (MA2-WM9>=10)).

<sup>91</sup> Marriage module, exclude women with MA2=98.

<sup>92</sup> Marriage module optional questions for countries where polygamy exists, MA2A=1.

<sup>93</sup> Marriage module, MA1=1 OR 2.

INDICATOR	NUMERATOR	DENOMINATOR	WSC	MDG	WFFC	Other
CHILD PROTECTION						
<b>71. Child labour</b>	Number of children aged 5-14 years that are involved in child labour <sup>94</sup>	Total number of children aged 5-14 years surveyed			SA 35	
<b>72. Labourer students</b>	Number of children aged 5-14 years involved in child labour activities that attend school <sup>95</sup>	Total number of children aged 5-14 years involved in child labour activities <sup>96</sup>			SA 36	
<b>73. Student labourers</b>	Number of children aged 5-14 years attending school that are involved in child labour activities <sup>97</sup>	Total number of children aged 5-14 years attending school <sup>98</sup>			SA 36	
<b>74. Child discipline</b>	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 <sup>99</sup>	Total number of children aged 2-14 years selected and surveyed <sup>100</sup>			SA 2	

<sup>94</sup> Child Labour module:

- (1) Economic activity: ((CL3=1 OR CL3=2 OR CL8=1) AND CL4+CL9>=MinHours) OR
- (2) Domestic chores: (CL6=1 AND CL7>=28 Hours)

For children aged 5-11 years, MinHours=1; for children aged 12-14 years, MinHours=14.

Note: This indicator should also be calculated separately for children working outside the home, and for paid and unpaid work.

<sup>95</sup>

Child Labour module, as defined in footnote 94 AND Education module, ED4 =1.

<sup>96</sup>

Child Labour module, as defined in footnote 94.

<sup>97</sup>

Child Labour and Education modules, Child Labour module, as defined in footnote 94 AND Education module, ED4 =1.

<sup>98</sup>

Education module, ED4=1.

<sup>99</sup>

Child Discipline optional module.

<sup>100</sup>

Note that only one child aged 2-14 years is selected in each household for the Child Discipline module.

INDICATOR	NUMERATOR	DENOMINATOR	WSC	MDG	WFFC	Other
HIV/AIDS						
<b>75. Prevalence of orphans</b>	Number of children under age 18 with at least one dead parent <sup>101</sup>	Total number of children under age 18 surveyed			MG C	
<b>76. Prevalence of vulnerable children</b>	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 <sup>102</sup>	Total number of children under age 18 surveyed			MG C	
<b>77. School attendance of orphans versus non-orphans</b>	Proportion of double orphans (both mother and father dead) aged 10-14 years attending school <sup>103</sup>	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 <sup>104</sup>	6	I 20	SA 10	UN-GASS
<b>78. Children's living arrangements</b>	Number of children aged 0-17 years not living with a biological parent <sup>105</sup>	Total number of children aged 0-17 years surveyed			SA 11	
<b>79. Malnutrition among children orphaned and made vulnerable by HIV/AIDS</b>	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 <sup>106</sup>	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 <sup>107</sup>			MG C	

<sup>101</sup> Household Listing module, HL9=2 OR HL11=2.

<sup>102</sup> Household Listing extended module and OVC module, (OV4=1 OR HL8A=1 for any household member) OR (HL10A=1 OR HL12A=1 for the specific child).

<sup>103</sup> Household Listing module, numerator is (HL9=2 OR HL11=2) AND ED4=1, denominator is (HL9=2 OR HL11=2).

<sup>104</sup> Household Listing module, numerator is (HL9=1 AND HL11=1 AND (HL10<>00 OR HL12<>00)) AND ED4=1, denominator is (HL9=1 AND HL11=1 AND (HL10<>00 OR HL12<>00)).

<sup>105</sup> Household Listing module, (HL9=2 OR HL10=00) AND (HL11=2 OR HL12=00), that is, mother is not living or not living in same household AND father is not living or not living in same household.

<sup>106</sup> See footnote 101 for the definition of an orphan and footnote 102 for the definition of a vulnerable child. The calculation of underweight prevalence is the same as for indicator 6. Children with out-of-range weights for age are omitted from this calculation.

<sup>107</sup> The underweight prevalence is calculated for all children under age five who are not classified as orphaned or vulnerable according to footnotes 101 and 102.



INDICATOR	NUMERATOR	DENOMINATOR	WSC	MDG	WFFC	Other
HIV/AIDS						
<b>80. Early sex among children orphaned and made vulnerable by HIV/AIDS</b>	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 <sup>108</sup>	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 <sup>109</sup>			MG C	
<b>81. External support to children orphaned and made vulnerable by HIV/AIDS</b>	Number of orphaned and vulnerable children under age 18 whose households received free basic external support in caring for the child <sup>110</sup>	Number of orphaned and vulnerable children under age 18 surveyed <sup>111</sup>			MG C	
<b>82. Comprehensive knowledge about HIV prevention among young people</b>	Number of women aged 15-24 years that correctly identify two ways of avoiding HIV infection and reject three common misconceptions about HIV transmission <sup>112</sup>	Total number of women aged 15-24 years surveyed		6 I 19b	SA 2	UN- GASS

<sup>108</sup> See footnotes 101 and 102 for the definition of orphaned and vulnerable children (OVC). Select OVCs aged 15-17 years for whom the following is true: Sexual Behaviour module, SB1<0 AND (SB1<15 (sex before age 15) OR (SB1=95 (first sex at marriage) AND ((MA6-WM8)<15) OR MA8<15)) (marriage before age 15)).

<sup>109</sup> The proportion that had sex before age 15 is calculated as in footnote 108 for all children aged 15-17 years who are not classified as orphaned or vulnerable according to footnotes 101 and 102.

<sup>110</sup> Children Orphaned and Made Vulnerable by HIV/AIDS module, orphaned or vulnerable children (as defined in footnotes 101 and 102) who live in households that received at least one of the following services for the child:

Medical support within the past 12 months, OV10=1 OR

Emotional support within the past 3 months, OV12=1 OR

Other social support, including material support, within the past 3 months, OV14=1 OR OV16=1 OR

School-related assistance within the past 12 months, OV18=1.

<sup>111</sup> See footnotes 101 and 102 for the definition of orphaned and vulnerable children.

<sup>112</sup> HIV/AIDS module. (HA2=1 AND HA4=1) (Note: these answers reflect correct understanding of how HIV infection can be prevented) AND (HA3=2 AND HA5=2 AND HA8=1) (Note: these answers reflect rejection of three common misconceptions about HIV transmission.)

INDICATOR	NUMERATOR	DENOMINATOR	WSC	MDG	WFFC	Other
HIV/AIDS						
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 <sup>113</sup>	Total number of women aged 15-24 years surveyed that had a non-marital, non-cohabiting partner in the previous 12 months <sup>114</sup>		6 I 19a	SA 2	UN-GASS
84. Age at first sex among young people	Number of women aged 15-24 years that have had sex before age 15 <sup>115</sup>	Total number of women aged 15-24 surveyed			SA 2	
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-cohabiting partner in the previous 12 months <sup>116</sup>	Total number of women aged 15-24 that were sexually active in the previous 12 months <sup>117</sup>			SA 4	
86. Attitude towards people with HIV/AIDS	Number of women expressing acceptance on all four questions about people with HIV or AIDS <sup>118</sup>	Total number of women surveyed			SA 7	
87. Women who know where to be tested for HIV	Number of women that state knowledge of a place to be tested <sup>119</sup>	Total number of women surveyed			MG B	
88. Women who have been tested for HIV	Number of women that report being tested for HIV <sup>120</sup>	Total number of women surveyed			MG B	

<sup>113</sup> Sexual Behaviour module, SB2<>4 AND ((SB3=1 AND SB4<>1) OR (SB7=1 AND SB8<>1)). This indicator should be presented disaggregated by 15-19, 20-24 and 15-24-year-old age groups.

<sup>114</sup> Sexual Behaviour module, SB2<>4 AND (SB4<>1 OR SB8<>1).

<sup>115</sup> Sexual Behaviour module, SB1<>0 AND (SB1<15 (sex before age 15) OR (SB1=95 (first sex at marriage) AND ((MA6-WM8)<15) OR MA8<15)) (marriage before age 15)).

<sup>116</sup> Sexual Behaviour module, SB2<>4 AND (SB4<>1 OR SB8<>1).

<sup>117</sup> Sexual Behaviour module, SB2<>4.

<sup>118</sup> HIV/AIDS module, HA10=1 AND HA11=1 AND HA12=2 AND HA13=1.

<sup>119</sup> HIV/AIDS module, HA18=1 or HA15=1 or Maternal and Newborn Health module, MN5=1.

<sup>120</sup> HIV/AIDS module and Maternal and Newborn Health module, HA15=1 OR MN5=1.

INDICATOR	NUMERATOR	DENOMINATOR	WSC	MDG	WFFC	Other
HIV/AIDS						
<i>89. Knowledge of mother-to-child transmission of HIV</i>	Number of women that correctly identify all three means of vertical transmission <sup>121</sup>	Total number of women surveyed			MG B	
<i>90. Counselling coverage for the prevention of mother-to-child transmission of HIV</i>	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 <sup>122</sup>	Total number of women that gave birth in the previous 24 months surveyed			MG B	
<i>91. Testing coverage for the prevention of mother-to-child transmission of HIV</i>	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 <sup>123</sup>	Total number of women that gave birth in the previous 24 months surveyed			MG B	
<i>92. Age-mixing among sexual partners</i>	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 <sup>124</sup>	Total number of sexually active women aged 15-24 years surveyed <sup>125</sup>			SA 4	

<sup>121</sup> HIV/AIDS module, HA9A=1 AND HA9B=1 AND HA9C=1.

<sup>122</sup> Maternal and Newborn Health module, MN4=1.

<sup>123</sup> Maternal and Newborn Health module, MN6=1.

<sup>124</sup> Sexual Behaviour module, SB2<=4 AND ((SB5-WM9)>=10 OR (SB9-WM9)>=10)). This indicator includes any sexual partner, marital/cohabiting or non-marital/non-cohabiting.

<sup>125</sup> Sexual Behaviour module, SB2<=4.

INDICATOR	NUMERATOR	DENOMINATOR	WSC	MDG	WFFC	Other
ADDITIONAL INDICATORS						
<b>93. Security of tenure</b>	Number of household members living in urban households that lack formal documentation for their residence or that feel at risk of eviction <sup>126</sup>	Number of urban household members in households surveyed				
<b>94. Durability of housing</b>	Number of household members living in urban dwellings that are not considered durable <sup>127</sup>	Number of urban household members in households surveyed				
<b>95. Slum household</b>	Number of household members living in urban slums <sup>128</sup>	Number of household members in urban households surveyed <sup>129</sup>		7 132		

<sup>126</sup> Security of Tenure and Durability of Housing module, (HC15B<>1 AND HC15C<>A,B AND HC15D<>1) OR HC15F=2.

<sup>127</sup> Security of Tenure and Durability of Housing module and Household Characteristics module:

(1) Natural floor material (HC3=11-19) AND poor condition of dwelling (two or more of HC15I=A-F), OR

(2) Vulnerable to accidents due to both issues: HC15J=A AND B, OR

(3) Located in a hazardous location, (four or more of HC15H=A-I).

<sup>128</sup> Household Characteristics module and Security of Tenure and Durability of Housing module, selecting for urban households, HH6=1:

(1) Lack of durable housing, see indicator 94 (footnote 127), OR

(2) Lack of security of tenure, see indicator 93 (footnote 126), OR

(3) Overcrowding, number of persons per sleeping room (HH11/HC2) > 3, OR

(4) Lack of access to improved water source, see indicator 11, OR

(5) Lack of access to improved sanitation, see indicator 12.

<sup>129</sup> Household Information Panel, HH6=1.

INDICATOR	NUMERATOR	DENOMINATOR	WSC	MDG	WFFC	Other
ADDITIONAL INDICATORS						
<b>96. Source of supplies</b>	Number of children (or households) for whom supplies were obtained from public providers, <sup>130</sup> presented separately for each type of supply: insecticide-treated mosquito nets, oral rehydration salts, antibiotics and antimalarials	Total number of children (or households) for whom supplies were obtained <sup>131</sup>				
<b>97. Cost of supplies</b>	Median cost of supplies obtained, <sup>132</sup> presented separately for each type of supply and whether sourced from public or private providers: insecticide-treated mosquito nets, oral rehydration salts, antibiotics and antimalarials.	Total number of children (or households) for whom supplies were obtained <sup>133</sup>				

<sup>130</sup> Source and Cost of Supplies module:

- (1) Source of insecticide-treated nets as defined in footnote 45 AND TN3A=11-19
- (2) Source of oral rehydration salts, CA4B=11-19
- (3) Source of antibiotics, CA11B=11-19
- (4) Source of antimalarials, ML9A=11-19.

<sup>131</sup> Source and Cost of Supplies module:

- (1) Use of insecticide-treated nets as defined in footnote 45
- (2) Use of oral rehydration salts, CA2A=1
- (3) Use of antibiotics, CA11=A
- (4) Use of antimalarials, ML4=A-H OR ML7=A-H.

<sup>132</sup> Source and Cost of Supplies module:

- (1) Cost of insecticide-treated nets as defined in footnote 45, and TN3B
- (2) Cost of oral rehydration salts, CA4C
- (3) Cost of antibiotics, CA11C
- (4) Cost of antimalarials, ML9B.

<sup>133</sup> Source and Cost of Supplies module:

- (1) Use of insecticide-treated nets as defined in footnote 45
- (2) Use of oral rehydration salts, CA2A=1
- (3) Use of antibiotics, CA11=A
- (4) Use of antimalarials, ML4=A-H OR ML7=A-H.

INDICATOR	NUMERATOR	DENOMINATOR	WSC	MDG	WFFC	Other
ADDITIONAL INDICATORS						
<b>98. Unmet need for family planning</b>	Number of women that are currently married or in union <sup>134</sup> that are fecund <sup>135</sup> and want to space <sup>136</sup> their births or limit <sup>137</sup> 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 <sup>138</sup>				
<b>99. Demand satisfied for family planning</b>	Number of women currently married or in union that are currently using contraception <sup>139</sup>	Number of women currently married or in union that have an unmet need for contraception <sup>140</sup> or that are currently using contraception <sup>141</sup>				

<sup>134</sup> Marriage/Union module: MA1=1 or 2.

<sup>135</sup> Contraception and Unmet Need module: CP1=1 OR CP4E<2.

<sup>136</sup> Contraception and Unmet Need module: (CP1=1 AND CP1A=2) OR (CP1<>1 AND CP4A=1 AND (CP4C>=2 years OR CP4C=995)).

<sup>137</sup> Contraception and Unmet Need module: (CP1=1 AND CP1A=3) OR (CP1<>1 AND CP4A=2).

<sup>138</sup> Marriage/Union module: MA1=1 or 2.

<sup>139</sup> Marriage/Union module and Contraception module: (MA1=1 or 2) AND CP2=1.

<sup>140</sup> See indicator 98.

<sup>141</sup> Marriage/Union module and Contraception module: (MA1=1 or 2) AND CP2=1.

INDICATOR	NUMERATOR	DENOMINATOR	WSC	MDG	WFFC	Other
ADDITIONAL INDICATORS						
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, <sup>142</sup> (2) she neglects the children, <sup>143</sup> (3) she argues with him, <sup>144</sup> (4) she refuses sex with him, <sup>145</sup> (5) she burns the food <sup>146</sup>	Total number of women surveyed			SA6	
101. Child disability	Number of children aged 2-9 years with at least one of nine reported disabilities <sup>147</sup> : (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			SA3	

<sup>142</sup> Attitudes Towards Domestic Violence module: DV1A=1.

<sup>143</sup> Attitudes Towards Domestic Violence module: DV1B=1.

<sup>144</sup> Attitudes Towards Domestic Violence module: DV1C=1.

<sup>145</sup> Attitudes Towards Domestic Violence module: DV1D=1.

<sup>146</sup> Attitudes Towards Domestic Violence module: DV1E=1.

<sup>147</sup> Child Disability module: DA3=1 or DA4=1 or DA5=1 or DA6=2 or DA7=1 or DA8=1 or DA9=2 or DA10=2 or DA13=1.

# APPENDIX TWO

## MODEL QUESTIONNAIRES, ADDITIONAL AND OPTIONAL MODULES

Three model questionnaires have been designed for MICS3: (1) the Household Questionnaire, (2) the Questionnaire for Individual Women and (3) the Questionnaire for Children Under Five.

These questionnaires include the CORE MODULES, shown below in CAPITAL LETTERS. Countries are provided with a number of Additional Modules, which should be used if applicable/appropriate/suitable, and a number of *Optional Modules*, which may be used if there is interest in the topics. Additional and *Optional Modules* are added to the model questionnaires, inserted into or replace the CORE MODULES of the model questionnaires. Refer to Chapter 3 for more detailed information on the flow of questionnaires and contents of the modules.

Household Questionnaire	Questionnaire for Individual Women	Questionnaire for Children Under Five
<b>HOUSEHOLD INFORMATION PANEL</b> Extended <b>HOUSEHOLD LISTING</b> <b>EDUCATION</b> <b>WATER AND SANITATION</b> <i>Additional HOUSEHOLD</i> <b>CHARACTERISTICS</b> + <i>Security of Tenure and Durability of Housing</i> <i>Insecticide-treated Nets with Source and Cost of Supplies for Insecticide-treated Mosquito Nets</i> <i>Children Orphaned and Made Vulnerable by HIV/AIDS</i> <b>CHILD LABOUR</b> <i>Child Discipline</i> <i>Disability</i> <i>Maternal Mortality</i> <b>SALT IODIZATION</b>	<b>WOMEN'S INFORMATION PANEL</b> <b>CHILD MORTALITY</b> <b>TETANUS TOXOID</b> <b>MATERNAL AND NEWBORN HEALTH</b> with Intermittent Preventive Treatment for Pregnant Women <b>MARRIAGE/UNION</b> + Polygyny <i>Security of Tenure</i> <b>CONTRACEPTION</b> and <i>Unmet Need</i> <i>Female Genital Mutilation/Cutting</i> <i>Attitudes Toward Domestic Violence</i> <i>Sexual Behaviour</i> <b>HIV/AIDS</b>	<b>UNDER-FIVE CHILD INFORMATION PANEL</b> <b>BIRTH REGISTRATION AND EARLY LEARNING</b> <i>Child Development</i> <b>VITAMIN A</b> <b>BREASTFEEDING</b> <b>CARE OF ILLNESS</b> + <i>Source and Cost of Supplies for ORS and Antibiotics</i> <i>Malaria + Source and Cost of Supplies for Antimalarials</i> <b>IMMUNIZATION</b> <b>ANTHROPOMETRY</b>



## DESIGN FEATURES

All core, additional and optional modules have standard format and style features, indicating various components of the questionnaires. These features have been introduced to make training, data processing and comparisons across country questionnaires easier:

- Questions that the interviewers will be asking appear in SMALL CAPITAL LETTERS.
- All response categories are in lower-case letters.
- All instructions to interviewers are *lower-case italic fonts*.
- (*Words in italics enclosed in parentheses*) are to be replaced by the interviewer during the interview, as appropriate.
- (***Words in bold italics enclosed in parentheses***) should be replaced as appropriate during the questionnaire adaptation stage.
- Question numbers begin with '1' in each module, preceded by two letters indicating the name of the module.
- Areas with light gray background indicate those questions and filters that should not be verbalized by interviewers, but should be coded, based on previous responses or observations.
- Letters are used to indicate response categories in questions where multiple responses can be accepted and coded. Numbers are used to indicate response categories in questions where only one response will be coded. These constitute the majority of questions.
- DK is used to abbreviate 'Doesn't Know'.
- For numeric response codes, '8', '98', '998' and '9998' are used throughout to indicate 'DK' responses; '6', '96', '996' and '9996' are used to indicate 'Other' responses.
- In questions where letters are used for response categories, 'X' is used for 'Other', 'Y' is used for 'None', and 'Z' is used for 'DK'.
- Skip instructions are provided to the right of the response categories, normally in a skip column, and indicate the number of the question that the interviewer should skip to (3⇒HC).

For more information on how the questionnaires should be customized to country situations, please refer to Chapter 3.



## HOUSEHOLD QUESTIONNAIRE

WE ARE FROM (**country-specific affiliation**). WE ARE WORKING ON A PROJECT CONCERNED WITH FAMILY HEALTH AND EDUCATION. I WOULD LIKE TO TALK TO YOU ABOUT THIS. THE INTERVIEW WILL TAKE ABOUT (**number**) MINUTES. ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND YOUR ANSWERS WILL NEVER BE IDENTIFIED. DURING THIS TIME I WOULD LIKE TO SPEAK WITH THE HOUSEHOLD HEAD AND ALL MOTHERS OR OTHERS WHO TAKE CARE OF CHILDREN IN THE HOUSEHOLD. MAY I START NOW? *If permission is given, begin the interview.*

HOUSEHOLD INFORMATION PANEL		HH
HH1. Cluster number: _____	HH2. Household number: _____	
HH3. Interviewer name and number: Name _____	HH4. Supervisor name and number: Name _____	
HH5. Day/Month/Year of interview: _____ / _____ / _____		
HH6. Area: Urban .....1 Rural .....2	HH7. Region: Region 1..... 1 Region 2..... 2 Region 3..... 3 Region 4..... 4	
HH 8. Name of head of household: _____		
<i>After all questionnaires for the household have been completed, fill in the following information:</i>		
HH9. Result of HH interview: Completed .....1 Not at home .....2 Refused .....3 HH not found/destroyed.....4 Other (specify) _____ 6	HH10. Respondent to HH questionnaire: Name: _____ Line No: _____	
HH12. No.of women eligible for interview: _____	HH11. Total number of household members: _____	
HH13. No.of women questionnaires completed: _____	HH14. No.of children under age 5: _____	
HH15. No.of under-5 questionnaires completed: _____		
Interviewer/supervisor notes: <i>Use this space to record notes about the interview with this household, such as call-back times, incomplete individual interview forms, number of attempts to re-visit, etc.</i>		
HH16. Data entry clerk: _____		

HOUSEHOLD LISTING FORM											HL
<p>FIRST, PLEASE TELL ME THE NAME OF EACH PERSON WHO USUALLY LIVES HERE, STARTING WITH THE HEAD OF THE HOUSEHOLD.</p> <p>List the head of the household in line 01. List all household members (HL2), their relationship to the household head (HL3), and their sex (HL4).</p> <p>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.</p> <p>Then, ask questions starting with HL5 for each person at a time. Add a continuation sheet if there are more than 15 household members. Tick here if continuation sheet used <input type="checkbox"/></p>											
					Eligible for: WOMEN'S INTERVIEW    CHILD LABOUR MODULE    UNDER-5 INTERVIEW			For children <b>age 0-17 years</b> ask HL9-HL12			
HL1. Line no.	HL2. Name	HL3. WHAT IS THE RELATIONSHIP OF (name) TO THE HEAD OF THE HOUSEHOLD?	HL4. Is (name) MALE OR FEMALE?  1 MALE 2 FEM.	HL5. HOW OLD IS (name)?  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 each child age 5-14: WHO IS THE MOTHER OR PRIMARY CARETAKER OF THIS CHILD?  Record Line no. of mother/ caretaker	HL8. For each child under 5: WHO IS THE MOTHER OR PRIMARY CARETAKER OF THIS CHILD?  Record Line no. of mother/ caretaker	HL9. Is (name's) NATURAL MOTHER ALIVE?  1 YES 2 NO⇒ HL11 8 DK⇒ HL11	HL10. If alive: DOES (name's) NATURAL MOTHER LIVE IN THIS HOUSEHOLD?  Record Line no. of mother or 00 for 'no'	HL11. Is (name's) NATURAL FATHER ALIVE?  1 YES 2 NO⇒ NEXT LINE 8 DK⇒ NEXT LINE	HL12. If alive: DOES (name's) NATURAL FATHER LIVE IN THIS HOUSEHOLD?  Record Line no. of father or 00 for 'no'
LINE	NAME	REL.	M   F	AGE	15-49	MOTHER	MOTHER	Y   N   DK	MOTHER	Y   N   DK	FATHER
01		0 1	1   2	___ __	01	___ __	___ __	1 2 8	___ __	1 2 8	___ __
02		___ __	1   2	___ __	02	___ __	___ __	1 2 8	___ __	1 2 8	___ __
03		___ __	1   2	___ __	03	___ __	___ __	1 2 8	___ __	1 2 8	___ __
04		___ __	1   2	___ __	04	___ __	___ __	1 2 8	___ __	1 2 8	___ __
05		___ __	1   2	___ __	05	___ __	___ __	1 2 8	___ __	1 2 8	___ __
06		___ __	1   2	___ __	06	___ __	___ __	1 2 8	___ __	1 2 8	___ __
07		___ __	1   2	___ __	07	___ __	___ __	1 2 8	___ __	1 2 8	___ __
08		___ __	1   2	___ __	08	___ __	___ __	1 2 8	___ __	1 2 8	___ __
09		___ __	1   2	___ __	09	___ __	___ __	1 2 8	___ __	1 2 8	___ __
10		___ __	1   2	___ __	10	___ __	___ __	1 2 8	___ __	1 2 8	___ __

HL1. Line no.	HL2. Name	HL3. WHAT IS THE RELATIONSHIP OF (name) TO THE HEAD OF THE HOUSEHOLD?	HL4. IS (name) MALE OR FEMALE ?  1 MALE 2 FEM.	HL5. HOW OLD IS (name)?  HOW OLD WAS (name) ON HIS/HER LAST BIRTHDAY?  <i>Record in completed years</i>  98=DK*	HL6. Circle Line no. if woman is age 15-49	HL7. For each child age 5-14: WHO IS THE MOTHER OR PRIMARY CARETAKER OF THIS CHILD?  <i>Record Line no. of mother/ caretaker</i>	HL8. For each child under 5: WHO IS THE MOTHER OR PRIMARY CARETAKER OF THIS CHILD?  <i>Record Line no. of mother/ caretaker</i>	HL9. IS (name's) NATURAL MOTHER ALIVE?  1 YES 2 NO⇒ HL11 8 DK⇒ HL11	HL10. If alive: DOES (name's) NATURAL MOTHER LIVE IN THIS HOUSEHOLD?  <i>Record Line no. of mother or 00 for 'no'</i>	HL11. IS (name's) NATURAL FATHER ALIVE?  1 YES 2 NO⇒ NEXT LINE 8 DK⇒ NEXT LINE	HL12. If alive: DOES (name's) NATURAL FATHER LIVE IN THIS HOUSEHOLD?  <i>Record Line no. of father or 00 for 'no'</i>	
LINE	NAME	REL.	M F	AGE	15-49	MOTHER	MOTHER	Y N DK	MOTHER	Y N DK	FATHER	
11		___	1 2	___	11	___	___	1 2 8	___	1 2 8	___	
12		___	1 2	___	12	___	___	1 2 8	___	1 2 8	___	
13		___	1 2	___	13	___	___	1 2 8	___	1 2 8	___	
14		___	1 2	___	14	___	___	1 2 8	___	1 2 8	___	
15		___	1 2	___	15	___	___	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 HOUSEHOLD? INCLUDING CHILDREN AT WORK OR AT SCHOOL? <i>If yes, insert child's name and complete form.</i> <i>Then, complete the totals below.</i>												
					Women 15-49	Children 5-14	Under-5s					
Totals					___	___	___					

\* See instructions: to be used only for elderly household members (code meaning “do not know/over age 50”).

Now for each woman age 15-49 years, write her name and line number and other identifying information in the information panel of the Women's Questionnaire.

For each child under age 5, write his/her name and line number AND the line number of his/her mother or caretaker in the information panel of the Questionnaire for Children UnderFive.

You should now have a separate questionnaire for each eligible woman and each child under five in the household.

\* Codes for HL3: Relationship to head of household:

01 = Head

02 = Wife or Husband

03 = Son or Daughter

04 = Son or Daughter In-Law

05 = Grandchild

06 = Parent

07 = Parent-In-Law

08 = Brother or Sister

09 = Brother or Sister-In-Law

10 = Uncle/Aunt

11 = Niece/Nephew By Blood

12 = Niece/Nephew By Marriage

13 = Other Relative

14 = Adopted/Foster/Stepchild

15 = Not Related

98 = Don't Know

EDUCATION MODULE											ED		
For household members age 5 and above					For household members age 5-24 years								
ED1. Line no.	ED1A. Name	ED2. HAS (name) EVER ATTENDED SCHOOL OR PRESCHOOL?	ED3. WHAT IS THE HIGHEST LEVEL OF SCHOOL (name) ATTENDED? WHAT IS THE HIGHEST GRADE (name) COMPLETED AT THIS LEVEL?  LEVEL: 0 PRE-SCHOOL 1 PRIMARY 2 SECONDARY 3 HIGHER 6 NON-STANDARD CURRICULUM 8 DK  GRADE: 98 DK <i>If less than 1 grade, enter 00.</i>		ED4. DURING THE (2004-2005) SCHOOL YEAR, DID (name) ATTEND SCHOOL OR PRESCHOOL AT ANY TIME?	ED5. SINCE LAST (day of the week), HOW MANY DAYS DID (name) ATTEND SCHOOL?	ED6. DURING THIS/THAT SCHOOL YEAR, WHICH LEVEL AND GRADE IS/WAS (name) ATTENDING?  LEVEL: 0 PRESCHOOL 1 PRIMARY 2 SECONDARY 3 HIGHER 6 NON-STANDARD CURRICULUM 8 DK  GRADE: 98 DK		ED7. DID (name) ATTEND SCHOOL OR PRESCHOOL AT ANY TIME DURING THE PREVIOUS SCHOOL YEAR, THAT IS (2003- 2004)?  1 YES  2 NO ↗ NEXT LINE 8 DK ↗ NEXT LINE			ED8. DURING THAT PREVIOUS SCHOOL YEAR, WHICH LEVEL AND GRADE DID (name) ATTEND?  LEVEL: 0 PRESCHOOL 1 PRIMARY 2 SECONDARY 3 HIGHER 6 NON-STANDARD CURRICULUM 8 DK  GRADE: 98 DK	
LINE		YES NO	LEVEL	GRADE	YES NO	DAYS	LEVEL	GRADE	Y N DK	LEVEL	GRADE		
01		1 2↗NEXT LINE	0 1 2 3 6 8	__ __	1 2	__	0 1 2 3 6 8	__ __	1 2 8	0 1 2 3 6 8	__ __		
02		1 2↗NEXT LINE	0 1 2 3 6 8	__ __	1 2	__	0 1 2 3 6 8	__ __	1 2 8	0 1 2 3 6 8	__ __		
03		1 2↗NEXT LINE	0 1 2 3 6 8	__ __	1 2	__	0 1 2 3 6 8	__ __	1 2 8	0 1 2 3 6 8	__ __		
04		1 2↗NEXT LINE	0 1 2 3 6 8	__ __	1 2	__	0 1 2 3 6 8	__ __	1 2 8	0 1 2 3 6 8	__ __		
05		1 2↗NEXT LINE	0 1 2 3 6 8	__ __	1 2	__	0 1 2 3 6 8	__ __	1 2 8	0 1 2 3 6 8	__ __		
06		1 2↗NEXT LINE	0 1 2 3 6 8	__ __	1 2	__	0 1 2 3 6 8	__ __	1 2 8	0 1 2 3 6 8	__ __		
07		1 2↗NEXT LINE	0 1 2 3 6 8	__ __	1 2	__	0 1 2 3 6 8	__ __	1 2 8	0 1 2 3 6 8	__ __		
08		1 2↗NEXT LINE	0 1 2 3 6 8	__ __	1 2	__	0 1 2 3 6 8	__ __	1 2 8	0 1 2 3 6 8	__ __		
09		1 2↗NEXT LINE	0 1 2 3 6 8	__ __	1 2	__	0 1 2 3 6 8	__ __	1 2 8	0 1 2 3 6 8	__ __		
10		1 2↗NEXT LINE	0 1 2 3 6 8	__ __	1 2	__	0 1 2 3 6 8	__ __	1 2 8	0 1 2 3 6 8	__ __		
11		1 2↗NEXT LINE	0 1 2 3 6 8	__ __	1 2	__	0 1 2 3 6 8	__ __	1 2 8	0 1 2 3 6 8	__ __		
12		1 2↗NEXT LINE	0 1 2 3 6 8	__ __	1 2	__	0 1 2 3 6 8	__ __	1 2 8	0 1 2 3 6 8	__ __		
13		1 2↗NEXT LINE	0 1 2 3 6 8	__ __	1 2	__	0 1 2 3 6 8	__ __	1 2 8	0 1 2 3 6 8	__ __		
14		1 2↗NEXT LINE	0 1 2 3 6 8	__ __	1 2	__	0 1 2 3 6 8	__ __	1 2 8	0 1 2 3 6 8	__ __		
15		1 2↗NEXT LINE	0 1 2 3 6 8	__ __	1 2	__	0 1 2 3 6 8	__ __	1 2 8	0 1 2 3 6 8	__ __		



<p>WS6. WHAT DO YOU USUALLY DO TO THE WATER TO MAKE IT SAFER TO DRINK?</p> <p>ANYTHING ELSE?</p> <p><i>Record all items mentioned.</i></p>	<p>Boil..... A</p> <p>Add bleach/chlorine ..... B</p> <p>Strain it through a cloth ..... C</p> <p>Use water filter (ceramic, sand, composite, etc.) ..... D</p> <p>Solar disinfection ..... E</p> <p>Let it stand and settle ..... F</p> <p>Other (<i>specify</i>) ..... X</p> <p>DK..... Z</p>	
<p>WS7. WHAT KIND OF TOILET FACILITY DO MEMBERS OF YOUR HOUSEHOLD USUALLY USE?</p> <p><i>If “flush” or “pour flush”, probe: WHERE DOES IT FLUSH TO?</i></p> <p><i>If necessary, ask permission to observe the facility.</i></p>	<p>Flush / pour flush</p> <p>Flush to piped sewer system ..... 11</p> <p>Flush to septic tank..... 12</p> <p>Flush to pit (latrine)..... 13</p> <p>Flush to somewhere else..... 14</p> <p>Flush to unknown place/not sure/DK where ..... 15</p> <p>Ventilated Improved Pit latrine (VIP) ..... 21</p> <p>Pit latrine with slab ..... 22</p> <p>Pit latrine without slab / open pit..... 23</p> <p>Composting toilet..... 31</p> <p>Bucket..... 41</p> <p>Hanging toilet/hanging latrine..... 51</p> <p>No facilities or bush or field ..... 95</p> <p>Other (<i>specify</i>) ..... 96</p>	<p>95⇒ NEXT MODULE</p>
<p>WS8. DO YOU SHARE THIS FACILITY WITH OTHER HOUSEHOLDS?</p>	<p>Yes ..... 1</p> <p>No ..... 2</p>	<p>2⇒ NEXT MODULE</p>
<p>WS9. HOW MANY HOUSEHOLDS IN TOTAL USE THIS TOILET FACILITY?</p>	<p>No. of households (if less than 10).... 0 ____</p> <p>Ten or more households ..... 10</p> <p>DK..... 98</p>	

HOUSEHOLD CHARACTERISTICS MODULE		HC
HC1A. WHAT IS THE RELIGION OF THE HEAD OF THIS HOUSEHOLD?	<i>Religion 1</i> ..... 1 <i>Religion 2</i> ..... 2 <i>Religion 3</i> ..... 3  Other religion ( <i>specify</i> ) ..... 6 No religion ..... 7	
HC1B. WHAT IS THE MOTHER TONGUE/NATIVE LANGUAGE OF THE HEAD OF THIS HOUSEHOLD?	<i>Language 1</i> ..... 1 <i>Language 2</i> ..... 2 <i>Language 3</i> ..... 3  Other language ( <i>specify</i> ) ..... 6	
HC1C. TO WHAT ETHNIC GROUP DOES THE HEAD OF THIS HOUSEHOLD BELONG?	<i>Ethnic group 1</i> ..... 1 <i>Ethnic group 2</i> ..... 2 <i>Ethnic group 3</i> ..... 3  Other ethnic group ( <i>specify</i> ) ..... 6	
HC2. HOW MANY ROOMS IN THIS HOUSEHOLD ARE USED FOR SLEEPING?	No. of rooms ..... _ _	
HC3. Main material of the dwelling floor:  <i>Record observation.</i>	Natural floor Earth/sand ..... 11 Dung ..... 12 Rudimentary floor Wood planks ..... 21 Palm/bamboo ..... 22 Finished floor Parquet or polished wood ..... 31 Vinyl or asphalt strips ..... 32 Ceramic tiles ..... 33 Cement ..... 34 Carpet ..... 35  Other ( <i>specify</i> ) ..... 96	
HC4. Main material of the roof.  <i>Record observation.</i>	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 ( <i>specify</i> ) ..... 96	



<p>HC5. Main material of the walls.</p> <p><i>Record observation.</i></p>	<p>Natural walls</p> <p>No walls ..... 11</p> <p>Cane/palm/trunks ..... 12</p> <p>Dirt ..... 13</p> <p>Rudimentary walls</p> <p>Bamboo with mud ..... 21</p> <p>Stone with mud ..... 22</p> <p>Uncovered adobe ..... 23</p> <p>Plywood ..... 24</p> <p>Carton ..... 25</p> <p>Reused wood ..... 26</p> <p>Finished walls</p> <p>Cement ..... 31</p> <p>Stone with lime/cement ..... 32</p> <p>Bricks ..... 33</p> <p>Cement blocks ..... 34</p> <p>Covered adobe ..... 35</p> <p>Wood planks/shingles ..... 36</p> <p>Other (<i>specify</i>) ..... 96</p>																						
<p>HC6. WHAT TYPE OF FUEL DOES YOUR HOUSEHOLD MAINLY USE FOR COOKING?</p>	<p>Electricity ..... 01</p> <p>Liquid Propane Gas (LPG) ..... 02</p> <p>Natural gas ..... 03</p> <p>Biogas ..... 04</p> <p>Kerosene ..... 05</p> <p>Coal / Lignite ..... 06</p> <p>Charcoal ..... 07</p> <p>Wood ..... 08</p> <p>Straw/shrubs/grass ..... 09</p> <p>Animal dung ..... 10</p> <p>Agricultural crop residue ..... 11</p> <p>Other (<i>specify</i>) ..... 96</p>	<p>01⇒HC8</p> <p>02⇒HC8</p> <p>03⇒HC8</p> <p>04⇒HC8</p>																					
<p>HC7. IN THIS HOUSEHOLD, IS FOOD COOKED ON AN OPEN FIRE, AN OPEN STOVE OR A CLOSED STOVE?</p> <p><i>Probe for type.</i></p>	<p>Open fire ..... 1</p> <p>Open stove ..... 2</p> <p>Closed stove ..... 3</p> <p>Other (<i>specify</i>) ..... 6</p>	<p>3⇒HC8</p> <p>6⇒HC8</p>																					
<p>HC7A. DOES THE FIRE/STOVE HAVE A CHIMNEY OR A HOOD?</p>	<p>Yes ..... 1</p> <p>No ..... 2</p>																						
<p>HC8. IS THE COOKING USUALLY DONE IN THE HOUSE, IN A SEPARATE BUILDING, OR OUTDOORS?</p>	<p>In the house ..... 1</p> <p>In a separate building ..... 2</p> <p>Outdoors ..... 3</p> <p>Other (<i>specify</i>) ..... 6</p>																						
<p>HC9. DOES YOUR HOUSEHOLD HAVE:</p> <p>ELECTRICITY?</p> <p>A RADIO?</p> <p>A TELEVISION?</p> <p>A MOBILE TELEPHONE?</p> <p>A NON-MOBILE TELEPHONE?</p> <p>A REFRIGERATOR?</p>	<table border="0"> <thead> <tr> <th></th> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr> <td>Electricity .....</td> <td>1</td> <td>2</td> </tr> <tr> <td>Radio .....</td> <td>1</td> <td>2</td> </tr> <tr> <td>Television .....</td> <td>1</td> <td>2</td> </tr> <tr> <td>Mobile Telephone.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>Non-Mobile Telephone .....</td> <td>1</td> <td>2</td> </tr> <tr> <td>Refrigerator .....</td> <td>1</td> <td>2</td> </tr> </tbody> </table>		Yes	No	Electricity .....	1	2	Radio .....	1	2	Television .....	1	2	Mobile Telephone.....	1	2	Non-Mobile Telephone .....	1	2	Refrigerator .....	1	2	
	Yes	No																					
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Television .....	1	2																					
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Non-Mobile Telephone .....	1	2																					
Refrigerator .....	1	2																					
<p>HC10. DOES ANY MEMBER OF YOUR HOUSEHOLD OWN:</p> <p>A WATCH?</p> <p>A BICYCLE?</p> <p>A MOTORCYCLE OR SCOOTER?</p> <p>AN ANIMAL-DRAWN CART?</p> <p>A CAR OR TRUCK?</p> <p>A BOAT WITH A MOTOR?</p>	<table border="0"> <thead> <tr> <th></th> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr> <td>Watch .....</td> <td>1</td> <td>2</td> </tr> <tr> <td>Bicycle .....</td> <td>1</td> <td>2</td> </tr> <tr> <td>Motorcycle/Scooter .....</td> <td>1</td> <td>2</td> </tr> <tr> <td>Animal drawn-cart .....</td> <td>1</td> <td>2</td> </tr> <tr> <td>Car/Truck.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>Boat with motor .....</td> <td>1</td> <td>2</td> </tr> </tbody> </table>		Yes	No	Watch .....	1	2	Bicycle .....	1	2	Motorcycle/Scooter .....	1	2	Animal drawn-cart .....	1	2	Car/Truck.....	1	2	Boat with motor .....	1	2	
	Yes	No																					
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CHILD LABOUR MODULE											CL						
To be administered to mother/caretaker of each child in the household age 5 through 14 years. For household members below age 5 or above age 14, leave rows blank.																	
Now I would like to ask about any work children in this household may do.																	
CL1. Line no.	CL2. Name	CL3. DURING THE PAST WEEK, DID (name) DO ANY KIND OF WORK FOR SOMEONE WHO IS NOT A MEMBER OF THIS HOUSEHOLD?  <i>If yes: FOR PAY IN CASH OR KIND?</i>  1 YES, FOR PAY (CASH OR KIND) 2 YES, UNPAID 3 NO ⇒ TO CL5			CL4. <i>If yes:</i> SINCE LAST (day of the week), ABOUT HOW MANY HOURS DID HE/SHE DO THIS WORK FOR SOMEONE WHO IS NOT A MEMBER OF THIS HOUSEHOLD?  <i>If more than one job, include all hours at all jobs.</i>  <i>Record response then ⇒ CL.6</i>		CL5. AT ANY TIME DURING THE PAST YEAR, DID (name) DO ANY KIND OF WORK FOR SOMEONE WHO IS NOT A MEMBER OF THIS HOUSEHOLD?  <i>If yes: FOR PAY IN CASH OR KIND?</i>  1 YES, FOR PAY (CASH OR KIND) 2 YES, UNPAID 3 NO			CL6. DURING THE PAST WEEK, DID (name) HELP WITH HOUSEHOLD CHORES SUCH AS SHOPPING, COLLECTING FIREWOOD, CLEANING, FETCHING WATER, OR CARING FOR CHILDREN?  1 YES 2 NO ⇒ TO CL8		CL7. <i>If yes:</i> SINCE LAST (day of the week), ABOUT HOW MANY HOURS DID HE/SHE 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. <i>If yes:</i> SINCE LAST (day of the week), ABOUT HOW MANY HOURS DID HE/SHE DO THIS WORK?	
LINE NO.	NAME	YES PAID UNPAID NO			NO. HOURS		YES PAID UNPAID NO			YES NO		NO. HOURS		YES NO		NO. HOURS	
01		1	2	3	___	___	1	2	3	1	2	___	___	1	2	___	___
02		1	2	3	___	___	1	2	3	1	2	___	___	1	2	___	___
03		1	2	3	___	___	1	2	3	1	2	___	___	1	2	___	___
04		1	2	3	___	___	1	2	3	1	2	___	___	1	2	___	___
05		1	2	3	___	___	1	2	3	1	2	___	___	1	2	___	___
06		1	2	3	___	___	1	2	3	1	2	___	___	1	2	___	___
07		1	2	3	___	___	1	2	3	1	2	___	___	1	2	___	___
08		1	2	3	___	___	1	2	3	1	2	___	___	1	2	___	___
09		1	2	3	___	___	1	2	3	1	2	___	___	1	2	___	___
10		1	2	3	___	___	1	2	3	1	2	___	___	1	2	___	___
11		1	2	3	___	___	1	2	3	1	2	___	___	1	2	___	___
12		1	2	3	___	___	1	2	3	1	2	___	___	1	2	___	___
13		1	2	3	___	___	1	2	3	1	2	___	___	1	2	___	___
14		1	2	3	___	___	1	2	3	1	2	___	___	1	2	___	___
15		1	2	3	___	___	1	2	3	1	2	___	___	1	2	___	___

SALT IODIZATION MODULE		SI
<p>SI1. WE WOULD LIKE TO CHECK WHETHER THE SALT USED IN YOUR HOUSEHOLD IS IODIZED. MAY I SEE A SAMPLE OF THE SALT USED TO COOK THE MAIN MEAL EATEN BY MEMBERS OF YOUR HOUSEHOLD LAST NIGHT?</p> <p><i>Once you have examined the salt, circle number that corresponds to test outcome.</i></p>	<p>Not iodized 0 PPM .....1  Less than 15 PPM .....2  15 PPM or more .....3</p> <p>No salt in home.....6  Salt not tested.....7</p>	

<p>SI2. Does any eligible woman age 15-49 reside in the household?  Check household listing, column HL6. You should have a questionnaire with the Information Panel filled in for each eligible woman.</p> <p><input type="checkbox"/> Yes. ⇒ Go to QUESTIONNAIRE FOR INDIVIDUAL WOMEN to administer the questionnaire to the first eligible woman.</p> <p><input type="checkbox"/> No. ⇒ Continue.</p>
<p>SI3. Does any child under the age of 5 reside in the household?  Check household listing, column HL8. You should have a questionnaire with the Information Panel filled in for each eligible child.</p> <p><input type="checkbox"/> Yes. ⇒ Go to QUESTIONNAIRE FOR CHILDREN UNDER FIVE to administer the questionnaire to mother or caretaker of the first eligible child.</p> <p><input type="checkbox"/> No. ⇒ End the interview by thanking the respondent for his/her cooperation. Gather together all questionnaires for this household and tally the number of interviews completed on the cover page.</p>



## QUESTIONNAIRE FOR INDIVIDUAL WOMEN

WOMEN'S INFORMATION PANEL		WM
<p><i>This module is to be administered to all women age 15 through 49 (see column HL6 of HH listing). Fill in one form for each eligible woman Fill in the cluster and household number, and the name and line number of the woman in the space below. Fill in your name, number and the date.</i></p>		
WM1. Cluster number: _____	WM2. Household number: _____	
WM3. Woman's Name: _____	WM4. Woman's Line Number: _____	
WM5. Interviewer name and number: _____	WM6. Day/Month/Year of interview: ____/____/____	
WM7. Result of women's interview	Completed..... 1 Not at home ..... 2 Refused..... 3 Partly completed ..... 4 Incapacitated ..... 5 Other (specify) ..... 6	

*Repeat greeting if not already read to this woman:*

WE ARE FROM (**country-specific affiliation**). WE ARE WORKING ON A PROJECT CONCERNED WITH FAMILY HEALTH AND EDUCATION. I WOULD LIKE TO TALK TO YOU ABOUT THIS. THE INTERVIEW WILL TAKE ABOUT (**number**) MINUTES. ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND YOUR ANSWERS WILL NEVER BE IDENTIFIED. ALSO, YOU ARE NOT OBLIGED TO ANSWER ANY QUESTION YOU DON'T WANT TO, AND YOU MAY WITHDRAW FROM THE INTERVIEW AT ANY TIME. MAY I START NOW?

*If permission is given, begin the interview. If the woman does not agree to continue, thank her, complete WM7, and go to the next interview. Discuss this result with your supervisor for a future revisit.*

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?	Yes .....1 No .....2	2⇒WM14
WM11. WHAT IS THE HIGHEST LEVEL OF SCHOOL YOU ATTENDED: PRIMARY, SECONDARY, OR HIGHER?	Primary .....1 Secondary .....2 Higher .....3  Non-standard curriculum .....6	
WM12. WHAT IS THE HIGHEST GRADE YOU COMPLETED AT THAT LEVEL?	Grade.....	
WM13. <i>Check WM11:</i>		
<input type="checkbox"/> <i>Secondary or higher. ⇒ Go to Next Module</i>		
<input type="checkbox"/> <i>Primary or non-standard curriculum. ⇒ Continue with WM14</i>		
WM14. NOW I WOULD LIKE YOU TO READ THIS SENTENCE TO ME.  <i>Show sentences to respondent.</i> <i>If respondent cannot read whole sentence, probe:</i> CAN YOU READ PART OF THE SENTENCE TO ME?  <i>Example sentences for literacy test:</i>  1. <i>The child is reading a book.</i> 2. <i>The rains came late this year.</i> 3. <i>Parents must care for their children.</i> 4. <i>Farming is hard work.</i>	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 <i>(specify language)</i> Blind/mute, visually/speech impaired .....5	

CHILD MORTALITY MODULE		CM
<p><i>This module is to be administered to all women age 15-49.</i></p> <p><i>All questions refer only to LIVE births.</i></p>		
<p>CM1. NOW I WOULD LIKE TO ASK ABOUT ALL THE BIRTHS YOU HAVE HAD DURING YOUR LIFE. HAVE YOU EVER GIVEN BIRTH?</p> <p><i>If "No" probe by asking:</i> 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?</p>	<p>Yes .....1</p> <p>No .....2</p>	<p>2⇒ MARRIAGE /UNION MODULE</p>
<p>CM2A. WHAT WAS THE DATE OF YOUR FIRST BIRTH?</p> <p>I MEAN THE VERY FIRST TIME YOU GAVE BIRTH, EVEN IF THE CHILD IS NO LONGER LIVING, OR WHOSE FATHER IS NOT YOUR CURRENT PARTNER.</p> <p><i>Skip to CM3 only if year of first birth is given. Otherwise, continue with CM2B.</i></p>	<p>Date of first birth</p> <p>Day ..... DK day.....98</p> <p>Month..... DK month.....98</p> <p>Year ..... DK year.....9998</p>	<p>⇒CM3 ↓CM2B</p>
<p>CM2B. HOW MANY YEARS AGO DID YOU HAVE YOUR FIRST BIRTH?</p>	<p>Completed years since first birth ..... .....</p>	
<p>CM3. DO YOU HAVE ANY SONS OR DAUGHTERS TO WHOM YOU HAVE GIVEN BIRTH WHO ARE NOW LIVING WITH YOU?</p>	<p>Yes .....1</p> <p>No .....2</p>	<p>2⇒CM5</p>
<p>CM4. HOW MANY SONS LIVE WITH YOU?</p> <p>HOW MANY DAUGHTERS LIVE WITH YOU?</p>	<p>Sons at home ..... .....</p> <p>Daughters at home ..... .....</p>	
<p>CM5. DO YOU HAVE ANY SONS OR DAUGHTERS TO WHOM YOU HAVE GIVEN BIRTH WHO ARE ALIVE BUT DO NOT LIVE WITH YOU?</p>	<p>Yes .....1</p> <p>No .....2</p>	<p>2⇒CM7</p>
<p>CM6. HOW MANY SONS ARE ALIVE BUT DO NOT LIVE WITH YOU?</p> <p>HOW MANY DAUGHTERS ARE ALIVE BUT DO NOT LIVE WITH YOU?</p>	<p>Sons elsewhere..... .....</p> <p>Daughters elsewhere ..... .....</p>	
<p>CM7. HAVE YOU EVER GIVEN BIRTH TO A BOY OR GIRL WHO WAS BORN ALIVE BUT LATER DIED?</p>	<p>Yes .....1</p> <p>No .....2</p>	<p>2⇒CM9</p>
<p>CM8. HOW MANY BOYS HAVE DIED?</p> <p>HOW MANY GIRLS HAVE DIED?</p>	<p>Boys dead..... .....</p> <p>Girls dead ..... .....</p>	
<p>CM9. <i>Sum answers to CM4, CM6, and CM8.</i></p>	<p>Sum ..... .....</p>	
<p>CM10. JUST TO MAKE SURE THAT I HAVE THIS RIGHT, YOU HAVE HAD IN TOTAL (<i>total number</i>) BIRTHS DURING YOUR LIFE. IS THIS CORRECT?</p> <p><input type="checkbox"/> Yes. ⇒ Go to CM11</p> <p><input type="checkbox"/> No. ⇒ Check responses and make corrections before proceeding to CM11</p>		

<p>CM11. OF THESE (<i>total number</i>) BIRTHS YOU HAVE HAD, WHEN DID YOU DELIVER THE LAST ONE (EVEN IF HE OR SHE HAS DIED)?</p> <p><i>If day is not known, enter '98' in space for day.</i></p>	<p>Date of last birth</p> <p>Day/Month/Year.....__ __/__ __/__ __ __ __</p>	
<p>CM12. Check CM11: Did the woman's last birth occur within the last 2 years, that is, since (day and month of interview in 2003)?</p> <p><i>If child has died, take special care when referring to this child by name in the following modules.</i></p> <p><input type="checkbox"/> No live birth in last 2 years. ⇒ Go to MARRIAGE/UNION module.</p> <p><input type="checkbox"/> Yes, live birth in last 2 years. ⇒ Continue with CM13</p> <p style="text-align: center;">Name of child _____</p>		
<p>CM13. AT THE TIME YOU BECAME PREGNANT WITH (<i>name</i>), DID YOU WANT TO BECOME PREGNANT THEN, DID YOU WANT TO WAIT UNTIL LATER, OR DID YOU WANT NO (MORE) CHILDREN AT ALL?</p>	<p>Then .....1</p> <p>Later .....2</p> <p>No more.....3</p>	

TETANUS TOXOID (TT) MODULE		TT
<i>This module is to be administered to all women with a live birth in the 2 years preceding date of interview.</i>		
TT1. DO YOU HAVE A CARD OR OTHER DOCUMENT WITH YOUR OWN IMMUNIZATIONS LISTED?	Yes (card seen) .....1 Yes (card not seen) .....2 No .....3  DK.....8	
<i>If a card is presented, use it to assist with answers to the following questions.</i>		
TT2. WHEN YOU WERE PREGNANT WITH YOUR LAST CHILD, DID YOU RECEIVE ANY INJECTION TO PREVENT HIM OR HER FROM GETTING TETANUS, THAT IS CONVULSIONS AFTER BIRTH (AN ANTI-TETANUS SHOT, AN INJECTION AT THE TOP OF THE ARM OR SHOULDER)?	Yes .....1  No .....2  DK.....8	2⇒ TT5 8⇒ TT5
TT3. <i>If yes:</i> HOW MANY TIMES DID YOU RECEIVE THIS ANTI-TETANUS INJECTION DURING YOUR LAST PREGNANCY?	No. of times .....__ __  DK.....98	98⇒ TT5
TT4. How many TT doses during last pregnancy were reported in TT3?		
<input type="checkbox"/> At least two TT injections during last pregnancy. ⇒ Go to Next Module <input type="checkbox"/> Fewer than two TT injections during last pregnancy. ⇒ Continue with TT5		
TT5. DID YOU RECEIVE ANY TETANUS TOXOID INJECTION AT ANY TIME BEFORE YOUR LAST PREGNANCY?	Yes .....1  No .....2  DK.....8	2⇒ NEXT MODULE 8⇒ NEXT MODULE
TT6. HOW MANY TIMES DID YOU RECEIVE IT?	No. of times .....__ __	
TT7. IN WHAT MONTH AND YEAR DID YOU RECEIVE THE LAST ANTI-TETANUS INJECTION BEFORE THAT LAST PREGNANCY?	Month.....__ __ DK month.....98  Year .....__ __ __ __ DK year.....9998	⇒ NEXT MODULE ↓ TT8
<i>Skip to next module only if year of injection is given. Otherwise, continue with TT8.</i>		
TT8. HOW MANY YEARS AGO DID YOU RECEIVE THE LAST ANTI-TETANUS INJECTION BEFORE THAT LAST PREGNANCY?	Years ago .....__ __	



MATERNAL AND NEWBORN HEALTH MODULE		MN
<p><i>This module is to be administered to all women with a live birth in the 2 years preceding date of interview. Check child mortality module CM12 and record name of last-born child here _____. Use this child's name in the following questions, where indicated.</i></p>		
<p>MN1. IN THE FIRST TWO MONTHS AFTER YOUR LAST BIRTH [THE BIRTH OF <i>name</i>], DID YOU RECEIVE A VITAMIN A DOSE LIKE THIS?</p> <p><i>Show 200,000 IU capsule or dispenser.</i></p>	<p>Yes ..... 1 No ..... 2 DK..... 8</p>	
<p>MN2. DID YOU SEE ANYONE FOR ANTENATAL CARE FOR THIS PREGNANCY?</p> <p><i>If yes: WHOM DID YOU SEE? ANYONE ELSE?</i></p> <p><i>Probe for the type of person seen and circle all answers given.</i></p>	<p>Health professional:            Doctor ..... A            Nurse/midwife ..... B            Auxiliary midwife ..... C            Other person            Traditional birth attendant ..... F            Community health worker ..... G            Relative/friend ..... H            Other (<i>specify</i>) ..... X            No one ..... Y</p>	Y⇒MN7
<p>MN3. AS PART OF YOUR ANTENATAL CARE, WERE ANY OF THE FOLLOWING DONE AT LEAST ONCE?</p>	<p>Yes No</p> <p>MN3A. WERE YOU WEIGHED? Weight ..... 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</p>	
<p>MN4. DURING ANY OF THE ANTENATAL VISITS FOR THE PREGNANCY, WERE YOU GIVEN ANY INFORMATION OR COUNSELED ABOUT AIDS OR THE AIDS VIRUS?</p>	<p>Yes ..... 1            No ..... 2            DK..... 8</p>	
<p>MN5. I DON'T WANT TO KNOW THE RESULTS, BUT WERE YOU TESTED FOR HIV/AIDS AS PART OF YOUR ANTENATAL CARE?</p>	<p>Yes ..... 1            No ..... 2            DK..... 8</p>	2⇒MN7 8⇒MN7
<p>MN6. I DON'T WANT TO KNOW THE RESULTS, BUT DID YOU GET THE RESULTS OF THE TEST?</p>	<p>Yes ..... 1            No ..... 2            DK..... 8</p>	
<p>MN7. WHO ASSISTED WITH THE DELIVERY OF YOUR LAST CHILD (<i>name</i>)?</p> <p>ANYONE ELSE?</p> <p><i>Probe for the type of person assisting and circle all answers given.</i></p>	<p>Health professional:            Doctor ..... A            Nurse/midwife ..... B            Auxiliary midwife ..... C            Other person            Traditional birth attendant ..... F            Community health worker ..... G            Relative/friend ..... H            Other (<i>specify</i>) ..... X            No one ..... Y</p>	

<p>MN8. WHERE DID YOU GIVE BIRTH TO (name)?</p> <p><i>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.</i></p> <p>_____</p> <p>(Name of place)</p>	<p>Home</p> <p>Your home .....11</p> <p>Other home.....12</p> <p>Public sector</p> <p>Govt. hospital.....21</p> <p>Govt. clinic/health center .....22</p> <p>Other public (specify) _____ 26</p> <p>Private Medical Sector</p> <p>Private hospital .....31</p> <p>Private clinic .....32</p> <p>Private maternity home.....33</p> <p>Other private medical (specify) _____ 36</p> <p>Other (specify) _____ 96</p>	
<p>MN9. WHEN YOUR LAST CHILD (name) WAS BORN, WAS HE/SHE VERY LARGE, LARGER THAN AVERAGE, AVERAGE, SMALLER THAN AVERAGE, OR VERY SMALL?</p>	<p>Very large .....1</p> <p>Larger than average .....2</p> <p>Average .....3</p> <p>Smaller than average .....4</p> <p>Very small.....5</p> <p>DK.....8</p>	
<p>MN10. WAS (name) WEIGHED AT BIRTH?</p>	<p>Yes .....1</p> <p>No .....2</p> <p>DK.....8</p>	<p>2⇒MN12</p> <p>8⇒MN12</p>
<p>MN11. HOW MUCH DID (name) WEIGH?</p> <p><i>Record weight from health card, if available.</i></p>	<p>From card .....1 (kilograms) __ . __ __</p> <p>From recall.....2 (kilograms) __ . __ __</p> <p>DK.....99998</p>	
<p>MN12. DID YOU EVER BREASTFEED (name)?</p>	<p>Yes .....1</p> <p>No .....2</p>	<p>2⇒ NEXT MODULE</p>
<p>MN13. HOW LONG AFTER BIRTH DID YOU FIRST PUT (name) TO THE BREAST?</p> <p><i>If less than 1 hour, record '00' hours.</i></p> <p><i>If less than 24 hours, record hours.</i></p> <p><i>Otherwise, record days.</i></p>	<p>Immediately .....000</p> <p>Hours .....1 __ __</p> <p>or</p> <p>Days .....2 __ __</p> <p>Don't know/remember .....998</p>	

MARRIAGE/UNION MODULE		MA
MA1. ARE YOU CURRENTLY MARRIED OR LIVING TOGETHER WITH A MAN AS IF MARRIED?	Yes, currently married ..... 1 Yes, living with a man..... 2 No, not in union ..... 3	3⇒MA3
MA2. HOW OLD WAS YOUR HUSBAND/PARTNER ON HIS LAST BIRTHDAY?	Age in years.....__ __ DK.....98	⇒MA5 98⇒MA5
MA3. HAVE YOU EVER BEEN MARRIED OR LIVED TOGETHER WITH A MAN?	Yes, formerly married ..... 1 Yes, formerly lived with a man ..... 2 No ..... 3	3⇒NEXT MODULE
MA4. WHAT IS YOUR MARITAL STATUS NOW: ARE YOU WIDOWED, DIVORCED OR SEPARATED?	Widowed ..... 1 Divorced ..... 2 Separated ..... 3	
MA5. HAVE YOU BEEN MARRIED OR LIVED WITH A MAN ONLY ONCE OR MORE THAN ONCE?	Only once ..... 1 More than once..... 2	
MA6. IN WHAT MONTH AND YEAR DID YOU <u>FIRST</u> MARRY OR START LIVING WITH A MAN AS IF MARRIED?	Month.....__ __ DK month.....98 Year .....__ __ __ __ DK year.....9998	
MA7. Check MA6: <input type="checkbox"/> Both month and year of marriage/union known? ⇒ Go to Next Module <input type="checkbox"/> Either month or year of marriage/union not known? ⇒ Continue with MA8		
MA8. HOW OLD WERE YOU WHEN YOU STARTED LIVING WITH YOUR FIRST HUSBAND/PARTNER?	Age in years.....__ __	

CONTRACEPTION MODULE		CP
<p>CP1. I WOULD LIKE TO TALK WITH YOU ABOUT ANOTHER SUBJECT – FAMILY PLANNING – AND YOUR REPRODUCTIVE HEALTH.</p> <p>ARE YOU PREGNANT NOW?</p>	<p>Yes, currently pregnant ..... 1</p> <p>No ..... 2</p> <p>Unsure or DK ..... 8</p>	<p>1 ⇒ NEXT MODULE</p>
<p>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?</p>	<p>Yes ..... 1</p> <p>No ..... 2</p>	<p>2 ⇒ NEXT MODULE</p>
<p>CP3. WHICH METHOD ARE YOU USING?</p> <p><i>Do not prompt.</i></p> <p><i>If more than one method is mentioned, circle each one.</i></p>	<p>Female sterilization ..... A</p> <p>Male sterilization ..... B</p> <p>Pill ..... C</p> <p>IUD ..... D</p> <p>Injections ..... E</p> <p>Implants ..... F</p> <p>Condom ..... G</p> <p>Female condom ..... H</p> <p>Diaphragm ..... I</p> <p>Foam/jelly ..... J</p> <p>Lactational amenorrhoea method (LAM) ..... K</p> <p>Periodic abstinence ..... L</p> <p>Withdrawal ..... M</p> <p>Other (<i>specify</i>) ..... X</p>	

HIV/AIDS MODULE		HA
HA1. NOW I WOULD LIKE TO TALK WITH YOU ABOUT SOMETHING ELSE.	Yes ..... 1 No ..... 2	2⇒ NEXT MODULE
HAVE YOU EVER HEARD OF THE VIRUS HIV OR AN ILLNESS CALLED AIDS?	Yes ..... 1 No ..... 2 DK..... 8	
HA2. CAN PEOPLE PROTECT THEMSELVES FROM GETTING INFECTED WITH THE AIDS VIRUS BY HAVING ONE SEX PARTNER WHO IS NOT INFECTED AND ALSO HAS NO OTHER PARTNERS?	Yes ..... 1 No ..... 2 DK..... 8	
HA3. CAN PEOPLE GET INFECTED WITH THE AIDS VIRUS BECAUSE OF WITCHCRAFT OR OTHER SUPERNATURAL MEANS?	Yes ..... 1 No ..... 2 DK..... 8	
HA4. CAN PEOPLE REDUCE THEIR CHANCE OF GETTING THE AIDS VIRUS BY USING A CONDOM EVERY TIME THEY HAVE SEX?	Yes ..... 1 No ..... 2 DK..... 8	
HA5. CAN PEOPLE GET THE AIDS VIRUS FROM MOSQUITO BITES?	Yes ..... 1 No ..... 2 DK..... 8	
HA6. CAN PEOPLE REDUCE THEIR CHANCE OF GETTING INFECTED WITH THE AIDS VIRUS BY NOT HAVING SEX AT ALL?	Yes ..... 1 No ..... 2 DK..... 8	
HA7. CAN PEOPLE GET THE AIDS VIRUS BY SHARING FOOD WITH A PERSON WHO HAS AIDS?	Yes ..... 1 No ..... 2 DK..... 8	
HA7A. CAN PEOPLE GET THE AIDS VIRUS BY GETTING INJECTIONS WITH A NEEDLE THAT WAS ALREADY USED BY SOMEONE ELSE?	Yes ..... 1 No ..... 2 DK..... 8	
HA8. IS IT POSSIBLE FOR A HEALTHY-LOOKING PERSON TO HAVE THE AIDS VIRUS?	Yes ..... 1 No ..... 2 DK..... 8	
HA9. CAN THE AIDS VIRUS BE TRANSMITTED FROM A MOTHER TO A BABY?		
HA9A. DURING PREGNANCY?	Yes No DK 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 DK/not sure/depends..... 8	
HA11. WOULD YOU BUY FRESH VEGETABLES FROM A SHOPKEEPER OR VENDOR IF YOU KNEW THAT THIS PERSON HAD THE AIDS VIRUS?	Yes ..... 1 No ..... 2 DK/not sure/depends..... 8	
HA12. IF A MEMBER OF YOUR FAMILY BECAME INFECTED WITH THE AIDS VIRUS, WOULD YOU WANT IT TO REMAIN A SECRET?	Yes ..... 1 No ..... 2 DK/not sure/depends..... 8	
HA13. IF A MEMBER OF YOUR FAMILY BECAME SICK WITH THE AIDS VIRUS, WOULD YOU BE WILLING TO CARE FOR HIM OR HER IN YOUR HOUSEHOLD?	Yes ..... 1 No ..... 2 DK/not sure/depends..... 8	

<p>HA14. Check MN5: Tested for HIV during antenatal care?</p> <p><input type="checkbox"/> Yes. ⇒ Go to HA18A</p> <p><input type="checkbox"/> No. ⇒ Continue with HA15</p>		
<p>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?</p>	<p>Yes .....1</p> <p>No .....2</p>	<p>2⇒HA18</p>
<p>HA16. I DO NOT WANT YOU TO TELL ME THE RESULTS OF THE TEST, BUT HAVE YOU BEEN TOLD THE RESULTS?</p>	<p>Yes .....1</p> <p>No .....2</p>	
<p>HA17. DID YOU, YOURSELF, ASK FOR THE TEST, WAS IT OFFERED TO YOU AND YOU ACCEPTED, OR WAS IT REQUIRED?</p>	<p>Asked for the test .....1</p> <p>Offered and accepted.....2</p> <p>Required .....3</p>	<p>1⇒NEXT MODULE</p> <p>2⇒NEXT MODULE</p> <p>3⇒NEXT MODULE</p>
<p>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?</p> <p>HA18A. If tested for HIV during antenatal care: OTHER THAN AT THE ANTENATAL CLINIC, DO YOU KNOW OF A PLACE WHERE YOU CAN GO TO GET A TEST TO SEE IF YOU HAVE THE AIDS VIRUS?</p>	<p>Yes .....1</p> <p>No .....2</p>	

Follow instructions in your Interviewer's Manual.





## QUESTIONNAIRE FOR CHILDREN UNDER FIVE

UNDER-FIVE CHILD INFORMATION PANEL		UF
<p><i>This questionnaire is to be administered to all mothers or caretakers (see household listing, column HL8) who care for a child that lives with them and is under the age of 5 years (see household listing, column HL5). A separate questionnaire should be used for each eligible child. Fill in the cluster and household number, and names and line numbers of the child and the mother/caretaker in the space below. Insert your own name and number, and the date.</i></p>		
UF1. Cluster number: _____	UF2. Household number: _____	
UF3. Child's Name: _____	UF4. Child's Line Number: _____	
UF5. Mother's/Caretaker's Name: _____	UF6. Mother's/Caretaker's Line Number: _____	
UF7. Interviewer name and number: _____	UF8. Day/Month/Year of interview: ____/____/____	
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	

*Repeat greeting if not already read to this respondent:*

WE ARE FROM (**country-specific affiliation**). WE ARE WORKING ON A PROJECT CONCERNED WITH FAMILY HEALTH AND EDUCATION. I WOULD LIKE TO TALK TO YOU ABOUT THIS. THE INTERVIEW WILL TAKE ABOUT (**number**) MINUTES. ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND YOUR ANSWERS WILL NEVER BE IDENTIFIED. ALSO, YOU ARE NOT OBLIGED TO ANSWER ANY QUESTION YOU DON'T WANT TO, AND YOU MAY WITHDRAW FROM THE INTERVIEW AT ANY TIME. MAY I START NOW?

*If permission is given, begin the interview. If the respondent does not agree to continue, thank him/her and go to the next interview. Discuss this result with your supervisor for a future revisit.*

UF10. NOW I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT THE HEALTH OF EACH CHILD UNDER THE AGE OF 5 IN YOUR CARE, WHO LIVES WITH YOU NOW. NOW I WANT TO ASK YOU ABOUT ( <i>name</i> ). IN WHAT MONTH AND YEAR WAS ( <i>name</i> ) BORN? <i>Probe:</i> WHAT IS HIS/HER BIRTHDAY?  <i>If the mother/caretaker knows the exact birth date, also enter the day; otherwise, circle 98 for day.</i>	Date of birth: Day ..... DK day .....98 Month..... Year .....	
UF11. HOW OLD WAS ( <i>name</i> ) AT HIS/HER LAST BIRTHDAY? <i>Record age in completed years.</i>	Age in completed years.....	



BIRTH REGISTRATION AND EARLY LEARNING MODULE		BR
BR1. DOES (name) HAVE A BIRTH CERTIFICATE? MAY I SEE IT?	Yes, seen.....1 Yes, not seen.....2 No .....3  DK.....8	1⇒BR5
BR2. HAS (name's) BIRTH BEEN REGISTERED WITH THE CIVIL AUTHORITIES?	Yes.....1 No .....2 DK.....8	1⇒BR5 8⇒BR4
BR3. WHY IS (name's) BIRTH NOT REGISTERED?	Costs too much.....1 Must travel too far.....2 Did not know it should be registered .....3 Did not want to pay fine .....4 Does not know where to register .....5  Other (specify) .....6 DK.....8	
BR4. DO YOU KNOW HOW TO REGISTER YOUR CHILD'S BIRTH?	Yes.....1 No .....2	
BR5. Check age of child in UF11: Child is 3 or 4 years old?		
<input type="checkbox"/> Yes. ⇒ Continue with BR6  <input type="checkbox"/> No. ⇒ Go to BR8		
BR6. DOES (name) ATTEND ANY ORGANIZED LEARNING OR EARLY CHILDHOOD EDUCATION PROGRAMME, SUCH AS A PRIVATE OR GOVERNMENT FACILITY, INCLUDING KINDERGARTEN OR COMMUNITY CHILD CARE?	Yes.....1  No .....2  DK.....8	2⇒BR8 8⇒BR8
BR7. WITHIN THE LAST SEVEN DAYS, ABOUT HOW MANY HOURS DID (name) ATTEND?	No. of hours ..... _ _	
BR8. IN THE PAST 3 DAYS, DID YOU OR ANY HOUSEHOLD MEMBER OVER 15 YEARS OF AGE ENGAGE IN ANY OF THE FOLLOWING ACTIVITIES WITH (name):  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.		
BR8A. READ BOOKS OR LOOK AT PICTURE BOOKS WITH (name)?	Books	Mother    Father    Other    No one A          B          X          Y
BR8B. TELL STORIES TO (name)?	Stories	A          B          X          Y
BR8C. SING SONGS WITH (name)?	Songs	A          B          X          Y
BR8D. TAKE (name) OUTSIDE THE HOME, COMPOUND, YARD OR ENCLOSURE?	Take outside	A          B          X          Y
BR8E. PLAY WITH (name)?	Play with	A          B          X          Y
BR8F. SPEND TIME WITH (name) NAMING, COUNTING, AND/OR DRAWING THINGS?	Spend time with	A          B          X          Y

VITAMIN A MODULE		VA
<b>VA1. HAS (name) EVER RECEIVED A VITAMIN A CAPSULE (SUPPLEMENT) LIKE THIS ONE?</b>  <i>Show capsule or dispenser for different doses –  100,000 IU for those 6-11 months old,  200,000 IU for those 12-59 months old.</i>	Yes .....1 No .....2  DK.....8	2⇒NEXT MODULE  8⇒NEXT MODULE
<b>VA2. HOW MANY MONTHS AGO DID (name) TAKE THE LAST DOSE?</b>	Months ago.....__ __  DK.....98	
<b>VA3. WHERE DID (name) GET THIS LAST DOSE?</b>	On routine visit to health facility .....1 Sick child visit to health facility .....2 National Immunization Day campaign.....3  Other ( <i>specify</i> ) .....6  DK.....8	

BREASTFEEDING MODULE		BF
BF1. HAS (name) EVER BEEN BREASTFED?	Yes .....1 No .....2 DK.....8	2⇒BF3 8⇒BF3
BF2. IS HE/SHE STILL BEING BREASTFED?	Yes .....1 No .....2 DK.....8	
BF3. SINCE THIS TIME YESTERDAY, DID HE/SHE RECEIVE ANY OF THE FOLLOWING:  <i>Read each item aloud and record response before proceeding to the next item.</i>	<div style="text-align: right; margin-bottom: 10px;">Y N DK</div> A. Vitamin supplements.....1 2 8 B. Plain water .....1 2 8 C. Sweetened water or juice .....1 2 8 D. ORS .....1 2 8 E. Infant formula .....1 2 8 F. Milk .....1 2 8 G. Other liquids.....1 2 8 H. Solid or semi-solid food .....1 2 8	
BF4. Check BF3H: Child received solid or semi-solid (mushy) food?  <input type="checkbox"/> Yes. ⇒ Continue with BF5  <input type="checkbox"/> No or DK. ⇒ Go to Next Module		
BF5. SINCE THIS TIME YESTERDAY, HOW MANY TIMES DID (name) EAT SOLID, SEMISOLID, OR SOFT FOODS OTHER THAN LIQUIDS?  <i>If 7 or more times, record '7'.</i>	No. of times .....  Don't know .....8	

CARE OF ILLNESS MODULE		CA
<p>CA1. HAS (name) HAD DIARRHOEA IN THE LAST TWO WEEKS, THAT IS, SINCE (day of the week) OF THE WEEK BEFORE LAST?</p> <p><i>Diarrhoea is determined as perceived by mother or caretaker, or as three or more loose or watery stools per day, or blood in stool.</i></p>	<p>Yes .....1</p> <p>No .....2</p> <p>DK.....8</p>	<p>2⇒CA5</p> <p>8⇒CA5</p>
<p>CA2. DURING THIS LAST EPISODE OF DIARRHOEA, DID (name) DRINK ANY OF THE FOLLOWING:</p> <p><i>Read each item aloud and record response before proceeding to the next item.</i></p> <p>CA2A. A FLUID MADE FROM A SPECIAL PACKET CALLED (local name for ORS packet solution)?</p> <p>CA2B. GOVERNMENT-RECOMMENDED HOMEMADE FLUID?</p> <p>CA2C. A PRE-PACKAGED ORS FLUID FOR DIARRHOEA?</p>	<p style="text-align: right;">Yes No DK</p> <p>A. Fluid from ORS packet.....1 2 8</p> <p>B. Recommended homemade fluid ...1 2 8</p> <p>C. Pre-packaged ORS fluid .....1 2 8</p>	
<p>CA3. DURING (name's) ILLNESS, DID HE/SHE DRINK MUCH LESS, ABOUT THE SAME, OR MORE THAN USUAL?</p>	<p>Much less or none .....1</p> <p>About the same (or somewhat less).....2</p> <p>More .....3</p> <p>DK.....8</p>	
<p>CA4. DURING (name's) ILLNESS, DID HE/SHE EAT LESS, ABOUT THE SAME, OR MORE FOOD THAN USUAL?</p> <p><i>If "less", probe:</i></p> <p>MUCH LESS OR A LITTLE LESS?</p>	<p>None .....1</p> <p>Much less .....2</p> <p>Somewhat less .....3</p> <p>About the same .....4</p> <p>More .....5</p> <p>DK.....8</p>	
<p>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?</p>	<p>Yes .....1</p> <p>No .....2</p> <p>DK.....8</p>	<p>2⇒CA12</p> <p>8⇒CA12</p>
<p>CA6. WHEN (name) HAD AN ILLNESS WITH A COUGH, DID HE/SHE BREATHE FASTER THAN USUAL WITH SHORT, QUICK BREATHS OR HAVE DIFFICULTY BREATHING?</p>	<p>Yes .....1</p> <p>No .....2</p> <p>DK.....8</p>	<p>2⇒CA12</p> <p>8⇒CA12</p>
<p>CA7. WERE THE SYMPTOMS DUE TO A PROBLEM IN THE CHEST OR A BLOCKED NOSE?</p>	<p>Problem in chest.....1</p> <p>Blocked nose .....2</p> <p>Both .....3</p> <p>Other (specify) .....6</p> <p>DK.....8</p>	<p>2⇒CA12</p> <p>6⇒CA12</p>
<p>CA8. DID YOU SEEK ADVICE OR TREATMENT FOR THE ILLNESS OUTSIDE THE HOME?</p>	<p>Yes .....1</p> <p>No .....2</p> <p>DK.....8</p>	<p>2⇒CA10</p> <p>8⇒CA10</p>

<p>CA9. FROM WHERE DID YOU SEEK CARE?</p> <p>ANYWHERE ELSE?</p> <p><i>Circle all providers mentioned, but do NOT prompt with any suggestions.</i></p> <p><i>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.</i></p> <p>_____</p> <p>(Name of place)</p>	<p>Public sector</p> <p>Govt. hospital..... A</p> <p>Govt. health centre ..... B</p> <p>Govt. health post ..... C</p> <p>Village health worker ..... D</p> <p>Mobile/outreach clinic ..... E</p> <p>Other public (<i>specify</i>) ..... H</p> <p>Private medical sector</p> <p>Private hospital/clinic ..... I</p> <p>Private physician ..... J</p> <p>Private pharmacy ..... K</p> <p>Mobile clinic ..... L</p> <p>Other private medical (<i>specify</i>) ..... O</p> <p>Other source</p> <p>Relative or friend ..... P</p> <p>Shop ..... Q</p> <p>Traditional practitioner ..... R</p> <p>Other (<i>specify</i>) ..... X</p>	
<p>CA10. WAS (<i>name</i>) GIVEN MEDICINE TO TREAT THIS ILLNESS?</p>	<p>Yes ..... 1</p> <p>No ..... 2</p> <p>DK..... 8</p>	<p>2⇒CA12</p> <p>8⇒CA12</p>
<p>CA11. WHAT MEDICINE WAS (<i>name</i>) GIVEN?</p> <p><i>Circle all medicines given.</i></p>	<p>Antibiotic ..... A</p> <p>Paracetamol/Panadol/Acetaminophen ..... P</p> <p>Aspirin..... Q</p> <p>Ibuprofen ..... R</p> <p>Other (<i>specify</i>) ..... X</p> <p>DK..... Z</p>	
<p>CA12. Check UF11: Child aged under 3?</p> <p><input type="checkbox"/> Yes. ⇒ Continue with CA13</p> <p><input type="checkbox"/> No. ⇒ Go to CA14</p>		
<p>CA13. THE LAST TIME (<i>name</i>) PASSED STOOLS, WHAT WAS DONE TO DISPOSE OF THE STOOLS?</p>	<p>Child used toilet/latrine ..... 01</p> <p>Put/rinsed into toilet or latrine ..... 02</p> <p>Put/rinsed into drain or ditch..... 03</p> <p>Thrown into garbage (solid waste) ..... 04</p> <p>Buried ..... 05</p> <p>Left in the open..... 06</p> <p>Other (<i>specify</i>) ..... 96</p> <p>DK..... 98</p>	

<p><i>Ask the following question (CA14) only once for each mother/caretaker.</i></p> <p><b>CA14. 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?</b></p> <p><i>Keep asking for more signs or symptoms until the mother/caretaker cannot recall any additional symptoms. Circle all symptoms mentioned, But do NOT prompt with any suggestions.</i></p>	<p>Child not able to drink or breastfeed ..... A</p> <p>Child becomes sicker ..... B</p> <p>Child develops a fever ..... C</p> <p>Child has fast breathing..... D</p> <p>Child has difficult breathing ..... E</p> <p>Child has blood in stool .....F</p> <p>Child is drinking poorly ..... G</p> <p>Other (<i>specify</i>) ..... X</p> <p>Other (<i>specify</i>) ..... Y</p> <p>Other (<i>specify</i>) ..... Z</p>	
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IMMUNIZATION MODULE										IM
<p>If an immunization card is available, copy the dates in IM2-IM8 for each type of immunization or vitamin A dose recorded on the card. IM10-IM18 are for recording vaccinations that are not recorded on the card. IM10-IM18 will only be asked when a card is not available.</p>										
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 AT BIRTH		OPV0								
IM3B. POLIO 1		OPV1								
IM3C. POLIO 2		OPV2								
IM3D. POLIO 3		OPV3								
IM4A. DPT1		DPT1								
IM4B. DPT2		DPT2								
IM4C. DPT3		DPT3								
IM5A. HEPB1 (OR DPTHEPB1)		(DPT)H1								
IM5B. HEPB2 (OR DPTHEPB2)		(DPT)H2								
IM5C. HEPB3 (OR DPTHEPB3)		(DPT)H3								
IM6. MEASLES (OR MMR)		MEASLES								
IM7. YELLOW FEVER		YF								
IM8A. VITAMIN A (1)		VITA1								
IM8B. VITAMIN A (2)		VITA2								
IM9. IN ADDITION TO THE VACCINATIONS AND VITAMIN A CAPSULES SHOWN ON THIS CARD, DID (name) RECEIVE ANY OTHER VACCINATIONS – INCLUDING VACCINATIONS RECEIVED IN CAMPAIGNS OR IMMUNIZATION DAYS? <i>Record 'Yes' only if respondent mentions BCG, OPV 0-3, DPT 1-3, Hepatitis B 1-3, Measles, Yellow Fever vaccine(s), or Vitamin A supplements.</i>				Yes .....1 (Probe for vaccinations and write '66' in the corresponding day column on IM2 to IM8B.) No .....2 DK.....8				1⇒IM19 2⇒IM19 8⇒IM19		
IM10. HAS (name) EVER RECEIVED ANY VACCINATIONS TO PREVENT HIM/HER FROM GETTING DISEASES, INCLUDING VACCINATIONS RECEIVED IN A CAMPAIGN OR IMMUNIZATION DAY?				Yes .....1 No .....2 DK.....8				2⇒IM19 8⇒IM19		

IM11. HAS ( <i>name</i> ) EVER BEEN GIVEN A BCG VACCINATION AGAINST TUBERCULOSIS – THAT IS, AN INJECTION IN THE ARM OR SHOULDER THAT CAUSED A SCAR?	Yes .....1 No .....2 DK.....8	
IM12. HAS ( <i>name</i> ) EVER BEEN GIVEN ANY “VACCINATION DROPS IN THE MOUTH” TO PROTECT HIM/HER FROM GETTING DISEASES – THAT IS, POLIO?	Yes .....1 No .....2 DK.....8	2⇒IM15 8⇒IM15
IM13. HOW OLD WAS HE/SHE 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 HAS HE/SHE BEEN GIVEN THESE DROPS?	No. of times ..... _ _	
IM15. HAS ( <i>name</i> ) EVER BEEN GIVEN “DPT VACCINATION INJECTIONS” – THAT IS, AN INJECTION IN THE THIGH OR BUTTOCKS – TO PREVENT HIM/HER FROM GETTING TETANUS, WHOOPING COUGH, DIPHTHERIA? (SOMETIMES GIVEN AT THE SAME TIME AS POLIO)	Yes .....1 No .....2 DK.....8	2⇒IM17 8⇒IM17
IM16. HOW MANY TIMES?	No. of times ..... _ _	
IM17. HAS ( <i>name</i> ) EVER BEEN GIVEN “MEASLES VACCINATION INJECTIONS” OR MMR – THAT IS, A SHOT IN THE ARM AT THE AGE OF <b>9</b> MONTHS OR OLDER - TO PREVENT HIM/HER FROM GETTING MEASLES?	Yes .....1 No .....2 DK.....8	
IM18. HAS ( <i>name</i> ) EVER BEEN GIVEN “YELLOW FEVER VACCINATION INJECTIONS” – THAT IS, A SHOT IN THE ARM AT THE AGE OF <b>9</b> MONTHS OR OLDER - TO PREVENT HIM/HER FROM GETTING YELLOW FEVER? (SOMETIMES GIVEN AT THE SAME TIME AS MEASLES)	Yes .....1 No .....2 DK.....8	
IM19. PLEASE TELL ME IF ( <i>name</i> ) HAS PARTICIPATED IN ANY OF THE FOLLOWING CAMPAIGNS, NATIONAL IMMUNIZATION DAYS AND/OR VITAMIN A OR CHILD HEALTH DAYS:		
IM19A. DATE/TYPE OF CAMPAIGN A	Campaign A.....1 2 8	
IM19B. DATE/TYPE OF CAMPAIGN B	Campaign B.....1 2 8	
IM19C. DATE/TYPE OF CAMPAIGN C	Campaign C.....1 2 8	

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

☐ Yes. ⇒ End the current questionnaire and then  
Go to **QUESTIONNAIRE FOR CHILDREN UNDER FIVE** to administer the questionnaire for the next eligible child.

☐ No. ⇒ End the interview with this respondent by thanking him/her for his/her cooperation.

If this is the last eligible child in the household, go on to **ANTHROPOMETRY MODULE**.



ANTHROPOMETRY MODULE		AN
<p>After questionnaires for all children are complete, the measurer weighs and measures each child.  Record weight and length/height below, taking care to record the measurements on the correct questionnaire for each child. Check the child's name and line number on the household listing before recording measurements.</p>		
AN1. Child's weight.	Kilograms (kg) ..... _ _ . _	
AN2. Child's length or height.  Check age of child in UF11:  <input type="checkbox"/> Child under 2 years old. ⇒ Measure length (lying down).  <input type="checkbox"/> Child age 2 or more years. ⇒ Measure height (standing up).	Length (cm) Lying down ..... 1 _ _ . _  Height (cm) Standing up ..... 2 _ _ . _	
AN3. Measurer's identification code.	Measurer code..... _ _	
AN4. Result of measurement.	Measured..... 1 Not present..... 2 Refused ..... 3  Other (specify) ..... 6	

AN5. Is there another child in the household who is eligible for measurement?  <input type="checkbox"/> Yes. ⇒ Record measurements for next child.  <input type="checkbox"/> No. ⇒ End the interview with this household by thanking all participants for their cooperation.  Gather together all questionnaires for this household and check that all identification numbers are inserted on each page. Tally on the Household Information Panel the number of interviews completed.
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**ADDITIONAL QUESTIONS AND QUESTION MODULES**  
**TO BE INSERTED BY COUNTRIES AFFECTED**

1. MALARIA
  - a. INSECTICIDE TREATED NETS
  - b. INTERMITTENT PREVENTIVE TREATMENT FOR PREGNANT WOMEN  
(MATERNAL AND NEWBORN HEALTH MODULE)
  - c. MALARIA MODULE FOR UNDER 5S
2. CHILDREN ORPHANED AND MADE VULNERABLE BY HIV/AIDS (WITH  
EXTENDED HOUSEHOLD LISTING)
3. MARRIAGE/UNION WITH POLYGyny
4. FEMALE GENITAL CUTTING
5. SEXUAL BEHAVIOR FOR 15-24 YEAR OLD WOMEN

ITN MODULE		TN
TN1. DOES YOUR HOUSEHOLD HAVE ANY MOSQUITO NETS THAT CAN BE USED WHILE SLEEPING?	Yes .....1 No .....2	2⇒NEXT MODULE
TN2. HOW MANY MOSQUITO NETS DOES YOUR HOUSEHOLD HAVE?  <i>If 7 or more nets, record '7'.</i>	Number of nets ..... ____	
TN3. IS THE NET (ARE ANY OF THE NETS) ANY OF THE FOLLOWING BRANDS:  <i>Read each brand name, show picture card, and circle codes for Yes or No for each brand. If possible, observe the net to verify brand.</i>	<div style="text-align: right; margin-bottom: 10px;">Y N DK</div> <p>LONG-LASTING TREATED NETS:</p> <p>TN3L1. Brand A?      Long-lasting treated nets:</p> <p>TN3L2. Brand B?      Brand A..... 1 2 8</p> <p>                                 Brand B..... 1 2 8</p> <p>PRE-TREATED NETS:</p> <p>TN3P1. Brand C?      Pre-treated nets:</p> <p>TN3P2. Brand D?      Brand C ..... 1 2 8</p> <p>                                 Brand D ..... 1 2 8</p> <p>OTHER NETS:</p> <p>TN3O1. Brand E?      Other nets:</p> <p>TN3O2. Brand F?      Brand E..... 1 2 8</p> <p>TN3O3. ANY OTHER BRAND OF NET?      Brand F..... 1 2 8</p> <p>                                 Other brand</p> <p>                                 (specify brand)..... 1 2</p> <p>TN3O4. AN UNKNOWN BRAND OF NET?      Unknown brand ..... 1 2</p>	
<p>TN4. Check TN3 for brand of net(s). Go through the above list in order until <b>one</b> box is checked and follow instructions:</p> <p>1. <input type="checkbox"/> Long-lasting treated net (brand A or brand B) mentioned? ⇒ Go to Next Module</p> <p>2. <input type="checkbox"/> Pre-treated net (brand C or brand D) mentioned? ⇒ Go to TN6</p> <p>3. <input type="checkbox"/> Other net (brand E, brand F or any other net, or an unknown brand) mentioned? ⇒ Continue with TN5</p>		
TN5. WHEN YOU GOT THE (MOST RECENT) NET, WAS IT ALREADY TREATED WITH AN INSECTICIDE TO KILL OR REPEL MOSQUITOES?	Yes .....1 No .....2 DK/not sure.....8	
TN6. HOW MANY MONTHS AGO WAS THE (MOST RECENT) NET OBTAINED?  <i>If less than 1 month ago, record '00'.</i> <i>If answer is "12 months" or "1 year", probe to determine if net was obtained exactly 12 months ago or earlier or later.</i>	Months ago..... ____  More than 24 months ago .....95 Not sure .....98	
TN7. SINCE YOU GOT THE NET(S) HAS IT (HAVE ANY OF THESE NETS) EVER BEEN SOAKED OR DIPPED IN A LIQUID TO KILL/REPEL MOSQUITOES?	Yes .....1 No .....2 DK.....8	2⇒NEXT MODULE 8⇒NEXT MODULE
TN8. HOW LONG AGO WAS THE MOST RECENT SOAKING/DIPPING DONE?  <i>If less than 1 month, record '00'.</i> <i>If answer is "12 months" or "1 year", probe to determine if net was treated exactly 12 months ago or earlier or later.</i>	Months ago..... ____  More than 24 months ago .....95 Not sure .....98	

MATERNAL AND NEWBORN HEALTH MODULE		MN
<p><i>This module is to be administered to all women with a live birth in the 2 years preceding date of interview. Check child mortality module CM12 and record name of last-born child here _____. Use this child's name in the following questions, where indicated.</i></p>		
<p>MN1. IN THE FIRST TWO MONTHS AFTER YOUR LAST BIRTH [THE BIRTH OF NAME], DID YOU RECEIVE A VITAMIN A DOSE LIKE THIS?</p> <p><i>Show 200,000 IU capsule or dispenser.</i></p>	<p>Yes ..... 1 No ..... 2 DK..... 8</p>	
<p>MN2. DID YOU SEE ANYONE FOR ANTENATAL CARE FOR THIS PREGNANCY?</p> <p><i>If yes: WHOM DID YOU SEE? ANYONE ELSE?</i></p> <p><i>Probe for the type of person seen and circle all answers given.</i></p>	<p>Health professional:</p> <p>Doctor ..... A Nurse/midwife ..... B Auxiliary midwife ..... C Other person</p> <p>Traditional birth attendant ..... F Community health worker ..... G Relative/friend ..... H</p> <p>Other (specify) ..... X No one ..... Y</p>	Y⇒MN6A
<p>MN3. AS PART OF YOUR ANTENATAL CARE, WERE ANY OF THE FOLLOWING DONE AT LEAST ONCE?</p>	<p>Yes No</p>	
MN3A. WERE YOU WEIGHED?	Weight ..... 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	
<p>MN4. DURING ANY OF THE ANTENATAL VISITS FOR THE PREGNANCY, WERE YOU GIVEN ANY INFORMATION OR COUNSELED ABOUT AIDS OR THE AIDS VIRUS?</p>	<p>Yes ..... 1 No ..... 2 DK..... 8</p>	
<p>MN5. I DON'T WANT TO KNOW THE RESULTS, BUT WERE YOU TESTED FOR HIV/AIDS AS PART OF YOUR ANTENATAL CARE?</p>	<p>Yes ..... 1 No ..... 2 DK..... 8</p>	<p>2⇒MN6A 8⇒MN6A</p>
<p>MN6. I DON'T WANT TO KNOW THE RESULTS, BUT DID YOU GET THE RESULTS OF THE TEST?</p>	<p>Yes ..... 1 No ..... 2 DK..... 8</p>	
<p>MN6A. DURING THIS PREGNANCY, DID YOU TAKE ANY MEDICINE IN ORDER TO PREVENT YOU FROM GETTING MALARIA?</p>	<p>Yes ..... 1 No ..... 2 DK..... 8</p>	<p>2⇒MN7 8⇒MN7</p>
<p>MN6B. WHICH MEDICINES DID YOU TAKE TO PREVENT MALARIA?</p> <p><i>Circle all medicines taken. If type of medicine is not determined, show typical anti-malarial to respondent.</i></p>	<p>SP/Fansidar ..... A Chloroquine ..... B</p> <p>Other (specify) ..... X DK..... Z</p>	
<p>MN6C. Check MN6B for medicine taken:</p> <p><input type="checkbox"/> SP/Fansidar taken. ⇒ Continue with MN6D</p> <p><input type="checkbox"/> SP/Fansidar not taken. ⇒ Go to MN7</p>		
<p>MN6D. HOW MANY TIMES DID YOU TAKE SP/FANSIDAR DURING THIS PREGNANCY TO PREVENT MALARIA?</p>	<p>Number of times ..... _ _</p>	

<p>MN7. WHO ASSISTED WITH THE DELIVERY OF YOUR LAST CHILD (<i>or name</i>)?</p> <p>ANYONE ELSE?</p> <p><i>Probe for the type of person assisting and circle all answers given.</i></p>	<p>Health professional:</p> <p>Doctor ..... A</p> <p>Nurse/midwife ..... B</p> <p>Auxiliary midwife ..... C</p> <p>Other person</p> <p>Traditional birth attendant ..... F</p> <p>Community health worker ..... G</p> <p>Relative/friend ..... H</p> <p>Other (<i>specify</i>) ..... X</p> <p>No one ..... Y</p>	
<p>MN8. WHERE DID YOU GIVE BIRTH TO (<i>name</i>)?</p> <p><i>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.</i></p> <p>_____</p> <p>(<i>Name of place</i>)</p>	<p>Home</p> <p>Your home ..... 11</p> <p>Other home ..... 12</p> <p>Public sector</p> <p>Govt. hospital ..... 21</p> <p>Govt. clinic/health center ..... 22</p> <p>Other public (<i>specify</i>) ..... 26</p> <p>Private Medical Sector</p> <p>Private hospital ..... 31</p> <p>Private clinic ..... 32</p> <p>Private maternity home ..... 33</p> <p>Other private medical (<i>specify</i>) ..... 36</p> <p>Other (<i>specify</i>) ..... 96</p>	
<p>MN9. WHEN YOUR LAST CHILD (<i>name</i>) WAS BORN, WAS HE/SHE VERY LARGE, LARGER THAN AVERAGE, AVERAGE, SMALLER THAN AVERAGE, OR VERY SMALL?</p>	<p>Very large ..... 1</p> <p>Larger than average ..... 2</p> <p>Average ..... 3</p> <p>Smaller than average ..... 4</p> <p>Very small ..... 5</p> <p>DK ..... 8</p>	
<p>MN10. WAS (<i>name</i>) WEIGHED AT BIRTH?</p>	<p>Yes ..... 1</p> <p>No ..... 2</p> <p>DK ..... 8</p>	<p>2⇒MN12</p> <p>8⇒MN12</p>
<p>MN11. HOW MUCH DID (<i>name</i>) WEIGH?</p> <p><i>Record weight from health card, if available.</i></p>	<p>From card ..... 1 (kilograms) ____ . ____</p> <p>From recall ..... 2 (kilograms) ____ . ____</p> <p>DK ..... 99998</p>	
<p>MN12. DID YOU EVER BREASTFEED (<i>name</i>)?</p>	<p>Yes ..... 1</p> <p>No ..... 2</p>	<p>2⇒ NEXT MODULE</p>
<p>MN13. HOW LONG AFTER BIRTH DID YOU FIRST PUT (<i>name</i>) TO THE BREAST?</p> <p><i>If less than 1 hour, record '00' hours.</i></p> <p><i>If less than 24 hours, record hours.</i></p> <p><i>Otherwise, record days.</i></p>	<p>Immediately ..... 000</p> <p>Hours ..... 1 ____</p> <p>or</p> <p>Days ..... 2 ____</p> <p>Don't know/remember ..... 998</p>	

MALARIA MODULE FOR UNDER-FIVES		ML
ML1. IN THE LAST TWO WEEKS, THAT IS, SINCE ( <i>day of the week</i> ) OF THE WEEK BEFORE LAST, HAS ( <i>name</i> ) BEEN ILL WITH A FEVER?	Yes .....1 No .....2 DK.....8	2⇒ML10 8⇒ML10
ML2. WAS ( <i>name</i> ) SEEN AT A HEALTH FACILITY DURING THIS ILLNESS?	Yes .....1 No .....2 DK.....8	2⇒ML6 8⇒ML6
ML3. DID ( <i>name</i> ) TAKE A MEDICINE FOR FEVER OR MALARIA THAT WAS PROVIDED OR PRESCRIBED AT THE HEALTH FACILITY?	Yes .....1 No .....2 DK.....8	2⇒ML5 8⇒ML5
ML4. WHAT MEDICINE DID ( <i>name</i> ) TAKE THAT WAS PROVIDED OR PRESCRIBED AT THE HEALTH FACILITY?  <i>Circle all medicines mentioned.</i>	Anti-malarials: SP/Fansidar ..... A Chloroquine ..... B Amodiaquine..... C Quinine ..... D Artemisinin-based combinations ..... E Other anti-malarial ( <i>specify</i> ) ..... H  Other medications: Paracetamol/Panadol/Acetaminophen ... P Aspirin ..... Q Ibuprofen ..... R  Other ( <i>specify</i> ) ..... X DK.....Z	
ML5. WAS ( <i>name</i> ) GIVEN MEDICINE FOR THE FEVER OR MALARIA BEFORE BEING TAKEN TO THE HEALTH FACILITY?	Yes .....1 No .....2 DK.....8	1⇒ML7 2⇒ML8 8⇒ML8
ML6. WAS ( <i>name</i> ) GIVEN MEDICINE FOR FEVER OR MALARIA DURING THIS ILLNESS?	Yes .....1 No .....2 DK.....8	2⇒ML8 8⇒ML8
ML7. WHAT MEDICINE WAS ( <i>name</i> ) GIVEN?  <i>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.</i>	Anti-malarials: SP/Fansidar ..... A Chloroquine ..... B Amodiaquine..... C Quinine ..... D Artemisinin-based combinations ..... E Other anti-malarial ( <i>specify</i> ) ..... H  Other medications: Paracetamol/Panadol/Acetaminophen ... P Aspirin ..... Q Ibuprofen ..... R  Other ( <i>specify</i> ) ..... X DK.....Z	
ML8. Check ML4 and ML7: Anti-malarial mentioned (codes A - H)?  <input type="checkbox"/> Yes. ⇒ Continue with ML9  <input type="checkbox"/> No. ⇒ Go to ML10		

<p>ML9. HOW LONG AFTER THE FEVER STARTED DID (name) FIRST TAKE (name of anti-malarial from ML4 or ML7)?</p> <p><i>If multiple anti-malarials mentioned in ML4 or ML7, name all anti-malarial medicines mentioned.</i></p> <p><i>Record the code for the day on which the first anti-malarial was given.</i></p>	<p>Same day .....0</p> <p>Next day .....1</p> <p>2 days after the fever.....2</p> <p>3 days after the fever.....3</p> <p>4 or more days after the fever .....4</p> <p>DK.....8</p>	
<p>ML10. DID (name) SLEEP UNDER A MOSQUITO NET LAST NIGHT?</p>	<p>Yes .....1</p> <p>No .....2</p> <p>DK.....8</p>	<p>2⇒NEXT MODULE</p> <p>8⇒NEXT MODULE</p>
<p>ML11. HOW LONG AGO DID YOUR HOUSEHOLD OBTAIN THE MOSQUITO NET?</p> <p><i>If less than 1 month, record '00'.</i></p> <p><i>If answer is "12 months" or "1 year", probe to determine if net was treated exactly 12 months ago or earlier or later.</i></p>	<p>Months ago.....__ __</p> <p>More than 24 months ago .....95</p> <p>Not sure .....98</p>	
<p>ML12. WHAT BRAND IS THIS NET?</p> <p><i>If the respondent does not know the brand of the net, show pictorials, or if possible, observe the net.</i></p> <p>LONG LASTING TREATED NETS:</p> <p>Brand A</p> <p>Brand B</p> <p>PRE-TREATED NETS:</p> <p>Brand C</p> <p>Brand D</p> <p>OTHER NETS:</p> <p>Brand E</p> <p>Brand F</p>	<p>Long lasting treated net:</p> <p>Brand A.....11</p> <p>Brand B.....12</p> <p>Pre-treated net:</p> <p>Brand C .....21</p> <p>Brand D .....22</p> <p>Other net:</p> <p>Brand E.....31</p> <p>Brand F .....32</p> <p>Other net (specify brand).....36</p> <p>DK brand .....98</p>	<p>11⇒NEXT MODULE</p> <p>12⇒NEXT MODULE</p> <p>21⇒ML14</p> <p>22⇒ML14</p>
<p>ML13. WHEN YOU GOT THAT NET, WAS IT ALREADY TREATED WITH AN INSECTICIDE TO KILL OR REPEL MOSQUITOES?</p>	<p>Yes .....1</p> <p>No .....2</p> <p>DK/not sure.....8</p>	
<p>ML14. SINCE YOU GOT THE MOSQUITO NET, WAS IT EVER SOAKED OR DIPPED IN A LIQUID TO KILL/REPEL MOSQUITOES OR BUGS?</p>	<p>Yes .....1</p> <p>No .....2</p> <p>DK.....8</p>	<p>2⇒ NEXT MODULE</p> <p>8⇒ NEXT MODULE</p>
<p>ML15. HOW LONG AGO WAS THE NET LAST SOAKED OR DIPPED?</p> <p><i>If less than 1 month, record '00'.</i></p> <p><i>If answer is "12 months" or "1 year", probe to determine if net was treated exactly 12 months ago or earlier or later.</i></p>	<p>Months ago.....__ __</p> <p>More than 24 months ago .....95</p> <p>DK.....98</p>	

HOUSEHOLD LISTING FORM														HL
<p>FIRST, PLEASE TELL ME THE NAME OF EACH PERSON WHO USUALLY LIVES HERE, STARTING WITH THE HEAD OF THE HOUSEHOLD.</p> <p>List the head of the household in line 01. List all household members (HL2), their relationship to the household head (HL3), and their sex (HL4)</p> <p>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.</p> <p>Then, ask questions starting with HL5 for each person at a time. Add a continuation sheet if there is not enough room on this page. Tick here if continuation sheet used <input type="checkbox"/></p>														
					Eligible for:			If age 18-59 years	For children age 0-17 years ask HL9-HL12A					
					WOMEN'S INTERVIEW	CHILD LABOUR MODULE	UNDER-5 INTERVIEW							
HL1. Line no.	HL2. Name	HL3. WHAT IS THE RELATION- SHIP OF (name) TO THE HEAD OF THE HOUSE- HOLD?	HL4. IS (name) MALE OR FEMALE ?  1 MALE 2 FEM.	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 each child age 5-14: WHO IS THE MOTHER OR PRIMARY CARETAKER OF THIS CHILD?  Record Line no. of mother/ caretaker	HL8. For each child under 5: WHO IS THE MOTHER OR PRIMARY CARETAKER OF THIS CHILD?  Record Line no. of mother/ caretaker	HL8A. HAS (name) BEEN VERY SICK FOR AT LEAST 3 MONTHS DURING THE PAST 12 MONTHS?	HL9. Is (name's) NATURAL MOTHER ALIVE?  1 YES 2 NO⇒ HL11 8 DK⇒ HL11	HL10. If alive: DOES (NAME)S NATURAL MOTHER LIVE IN THIS HOUSE- HOLD? Record Line no. of mother or 00 for 'no'	HL10A. If mother does not live in household: HAS (name's) MOTHER BEEN VERY SICK FOR AT LEAST 3 MONTHS IN THE PAST 12 MONTHS?	HL11. Is (name's) NATURAL FATHER ALIVE?  1 YES 2 NO⇒ NEXT LINE 8 DK⇒ NEXT LINE	HL12. If alive: DOES (NAME)S NATURAL FATHER LIVE IN THIS HOUSE- HOLD? Record Line no. of father or 00 for 'no'	HL12A. If father does not live in household: HAS (name's) FATHER BEEN VERY SICK FOR AT LEAST 3 MONTHS IN THE PAST 12 MONTHS?
LINE	NAME	REL.	M F	AGE	15-49	MOTHER	MOTHER	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
10		___	1 2	___	10	___	___	1 2 8	1 2 8	___	1 2 8	1 2 8	___	1 2 8



HL1. Line no.	HL2. Name	HL3. WHAT IS THE RELATIONSHIP OF (name) TO THE HEAD OF THE HOUSEHOLD?	HL4. IS (name) MALE OR FEMALE?  1 MALE 2 FEM.	HL5. HOW OLD IS (name)?  HOW OLD WAS (name) ON HIS/HER LAST BIRTHDAY?  <i>Record in completed years</i>  98=DK*	HL6. <i>Circle</i> Line no. if woman is age 15-49	HL7. <i>For each child age 5-14:</i> WHO IS THE MOTHER OR PRIMARY CARETAKER OF THIS CHILD?  <i>Record Line no. of mother/ caretaker</i>	HL8. <i>For each child under 5:</i> WHO IS THE MOTHER OR PRIMARY CARETAKER OF THIS CHILD?  <i>Record Line no. of mother/ caretaker</i>	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. <i>If alive:</i> DOES (NAME)'S NATURAL MOTHER LIVE IN THIS HOUSEHOLD?  <i>Record Line no. of mother or 00 for 'no'</i>	HL10A. <i>If mother does not live in household:</i> 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. <i>If alive:</i> DOES (NAME)'S NATURAL FATHER LIVE IN THIS HOUSEHOLD?  <i>Record Line no. of father or 00 for 'no'</i>	HL12A. <i>If father does not live in household:</i> HAS (name's) FATHER BEEN VERY SICK FOR AT LEAST 3 MONTHS IN THE PAST 12 MONTHS?
LINE	NAME	REL.	M F	AGE	15-49	MOTHER	MOTHER	Y N DK	Y N DK	MOTHER	Y N DK	Y N DK	FATHER	Y N DK
11		___	1 2	___	11	___	___	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 HOUSEHOLD? INCLUDING CHILDREN AT WORK OR AT SCHOOL? *If yes, insert child's name and complete form.*

*Then, complete the totals below.*

	Women 15-49	Children 5-14	Under-5s	Very Sick (=1)	Mothers Dead (=2)		Mothers Very Sick (=1)	Fathers Dead (=2)		Fathers Very Sick (=1)
Totals	___	___	___	___	___		___	___		___

\* See instructions: to be used only for elderly household members (code meaning “do not know/over age 50”).

Now for each woman age 15-49 years, write her name and line number and other identifying information in the information panel of the Women's Questionnaire.

For each child under age 5, write his/her name and line number AND the line number of his/her mother or caretaker in the information panel of the Questionnaire for Children UnderFive.

You should now have a separate questionnaire for each eligible woman and each child under five in the household.

\* Codes for HL3: Relationship to head of household:

01 = Head

02 = Wife or Husband

03 = Son or Daughter

04 = Son or Daughter In-Law

05 = Grandchild

06 = Parent

07 = Parent-In-Law

08 = Brother or Sister

09 = Brother or Sister-In-Law

10 = Uncle/Aunt

11 = Niece/Nephew By Blood

12 = Niece/Nephew By Marriage

13 = Other Relative

14 = Adopted/Foster/Stepchild

15 = Not Related

98 = Don't Know

CHILDREN ORPHANED & MADE VULNERABLE BY HIV/AIDS		OV
OV1. Check HL5: any children 0-17?		
<input type="checkbox"/> Yes ⇒ Continue to OV2 <input type="checkbox"/> No ⇒ Next Module		
OV2. I WOULD LIKE YOU TO THINK BACK OVER THE PAST 12 MONTHS. HAS ANY USUAL MEMBER OF YOUR HOUSEHOLD DIED IN THE LAST 12 MONTHS?	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?	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) WERE ANY OF THESE PEOPLE SERIOUSLY ILL FOR 3 OF THE 12 MONTHS BEFORE HE/SHE DIED?	Yes ..... 1 No ..... 2	1⇒OV8
OV5. Return to the Household Listing and check the following:  1. Check totals for HL9 and HL11. <input type="checkbox"/> At least one mother or father dead. ⇒ Go to OV8 <input type="checkbox"/> No mother or father dead 2. Check totals for HL8A. <input type="checkbox"/> At least one adult aged 18-59 very sick 3 of last 12 months ⇒ Go to OV8 <input type="checkbox"/> No adult aged 18-59 very sick 3 of last 12 months 3. Check totals for HL10A and HL12A. <input type="checkbox"/> At least one mother or father ill 3 of last 12 months ⇒ Go to OV8 <input type="checkbox"/> No mother or father ill 3 of last 12 months ⇒ Go to Next Module		

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

MARRIAGE/UNION MODULE		MA
MA1. ARE YOU CURRENTLY MARRIED OR LIVING TOGETHER WITH A MAN AS IF MARRIED?	Yes, currently married .....1 Yes, living with a man.....2 No, not in union .....3	3⇒MA3
MA2. HOW OLD WAS YOUR HUSBAND/PARTNER ON HIS LAST BIRTHDAY?	Age in years.....__ __ DK.....98	
MA2A. BESIDES YOURSELF, DOES YOUR HUSBAND/PARTNER HAVE ANY OTHER WIVES?	Yes .....1 No .....2	2⇒MA5
MA2B. HOW MANY OTHER WIVES DOES HE HAVE?	Number.....__ __ DK.....98	⇒MA5 98⇒MA5
MA3. HAVE YOU EVER BEEN MARRIED OR LIVED TOGETHER WITH A MAN?	Yes, formerly married .....1 Yes, formerly lived with a man .....2 No .....3	⇒NEXT MODULE
MA4. WHAT IS YOUR MARITAL STATUS NOW: ARE YOU WIDOWED, DIVORCED OR SEPARATED?	Widowed .....1 Divorced .....2 Separated .....3	
MA5. HAVE YOU BEEN MARRIED OR LIVED WITH A MAN ONLY ONCE OR MORE THAN ONCE?	Only once .....1 More than once.....2	
MA6. IN WHAT MONTH AND YEAR DID YOU <u>FIRST</u> MARRY OR START LIVING WITH A MAN AS IF MARRIED?	Month.....__ __ DK month.....98 Year .....__ __ __ __ DK year.....9998	
MA7. Check MA6: <input type="checkbox"/> Both month and year of marriage/union known? ⇒ Go to Next Module <input type="checkbox"/> Either month or year of marriage/union not known? ⇒ Continue with MA8		
MA8. HOW OLD WERE YOU WHEN YOU STARTED LIVING WITH YOUR FIRST HUSBAND/PARTNER?	Age in years.....__ __	

FEMALE GENITAL MUTILATION/CUTTING MODULE		FG
FG1. HAVE YOU EVER HEARD OF FEMALE CIRCUMCISION?	Yes .....1 No .....2	1⇒FG3
FG2. IN A NUMBER OF COUNTRIES, THERE IS A PRACTICE IN WHICH A GIRL MAY HAVE PART OF HER GENITALS CUT. HAVE YOU EVER HEARD ABOUT THIS PRACTICE?	Yes .....1 No .....2	2⇒NEXT MODULE
FG3. HAVE YOU YOURSELF EVER BEEN CIRCUMCISED?	Yes .....1 No .....2	2⇒FG8
FG4. NOW I WOULD LIKE TO ASK YOU WHAT WAS DONE TO YOU AT THIS TIME.  WAS ANY FLESH REMOVED FROM THE GENITAL AREA?	Yes .....1 No .....2  DK.....8	1⇒FG6
FG5. WAS THE GENITAL AREA JUST NICKED WITHOUT REMOVING ANY FLESH?	Yes .....1 No .....2 DK.....8	
FG6. WAS THE GENITAL AREA SEWN CLOSED (OR 'SEALED')?	Yes .....1 No .....2 DK.....8	
FG7. WHO CIRCUMCISED YOU?	Traditional persons Traditional 'circumciser' .....11 Traditional birth attendant.....12 Other traditional ( <i>specify</i> ) .....16  Health professional Doctor .....21 Nurse/midwife .....22 Other health professional ( <i>specify</i> ) .....26  DK.....98	
FG8. <i>The following questions apply only to women who have at least one living daughter. Check CM4 and CM6, Child Mortality Module: Woman has living daughter?</i>  <input type="checkbox"/> Yes. ⇒ Continue with FG9  <input type="checkbox"/> No. ⇒ Go to FG16		
FG9. HAVE ANY OF YOUR DAUGHTERS BEEN CIRCUMCISED?  IF YES, HOW MANY?	Number of daughters circumcised: .....__ __  No daughters circumcised.....00	00⇒FG16
FG10. TO WHICH OF YOUR DAUGHTERS DID THIS HAPPEN MOST RECENTLY?  <i>Record the daughter's name.</i>	Name of daughter: _____	
FG11. NOW I WOULD LIKE TO ASK YOU WHAT WAS DONE TO ( <i>name</i> ) AT THAT TIME.  WAS ANY FLESH REMOVED FROM THE GENITAL AREA?	Yes .....1 No .....2  DK.....8	1⇒FG13
FG12. WAS THE GENITAL AREA JUST NICKED WITHOUT REMOVING ANY FLESH?	Yes .....1 No .....2  DK.....8	

FG13. WAS THE GENITAL AREA SEWN CLOSED (OR 'SEALED')?	Yes .....1 No .....2  DK.....8	
FG14. HOW OLD WAS ( <i>name</i> ) WHEN THIS OCCURRED?  <i>If the respondent does not know the age, probe to get an estimate.</i>	Daughter's age at circumcision .....__ __  DK.....98	
FG15. WHO DID THE CIRCUMCISION?	Traditional persons Traditional 'circumciser' .....11 Traditional birth attendant.....12 Other traditional ( <i>specify</i> ) .....16  Health professional Doctor .....21 Nurse/midwife .....22 Other health professional ( <i>specify</i> ) .....26  DK.....98	
FG16. DO YOU THINK THIS PRACTICE SHOULD BE CONTINUED OR SHOULD IT BE DISCONTINUED?	Continued .....1 Discontinued.....2 Depends .....3  DK.....8	

SEXUAL BEHAVIOUR MODULE		SB
<b>CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, ENSURE PRIVACY.</b>		
SB0. Check WM9: Age of respondent is between 15 and 24?		
<input type="checkbox"/> Age 25-49. ⇒ Go to Next Module <input type="checkbox"/> Age 15-24. ⇒ Continue with SB1		
SB1. NOW I NEED TO ASK YOU SOME QUESTIONS ABOUT SEXUAL ACTIVITY IN ORDER TO GAIN A BETTER UNDERSTANDING OF SOME FAMILY LIFE ISSUES.  THE INFORMATION YOU SUPPLY WILL REMAIN STRICTLY CONFIDENTIAL.  HOW OLD WERE YOU WHEN YOU FIRST HAD SEXUAL INTERCOURSE (IF EVER)?	Never had intercourse .....00 Age in years.....__ __ First time when started living with (first) husband/partner .....95	00⇒NEXT MODULE
SB2. WHEN WAS THE LAST TIME YOU HAD SEXUAL INTERCOURSE?  <i>Record 'years ago' only if last intercourse was one or more years ago. If 12 months or more the answer must be recorded in years.</i>	Days ago .....1 __ __ Weeks ago.....2 __ __ Months ago.....3 __ __ Years ago .....4 __ __	4⇒NEXT MODULE
SB3. THE LAST TIME YOU HAD SEXUAL INTERCOURSE WAS A CONDOM USED?	Yes .....1 No .....2	
SB4. WHAT IS YOUR RELATIONSHIP TO THE MAN WITH WHOM YOU LAST HAD SEXUAL INTERCOURSE?  <i>If man is 'boyfriend' or 'fiancée', ask:</i> WAS YOUR BOYFRIEND/FIANCÉE LIVING WITH YOU WHEN YOU LAST HAD SEX? <i>If 'yes', circle 1 .If 'no', circle 2.</i>	Spouse / cohabiting partner .....1 Man is boyfriend / fiancée .....2 Other friend.....3 Casual acquaintance .....4 Other (specify) .....6	1⇒SB6
SB5. HOW OLD IS THIS PERSON?  <i>If response is DK, probe:</i> ABOUT HOW OLD IS THIS PERSON?	Age of sexual partner .....__ __ DK.....98	
SB6. HAVE YOU HAD SEX WITH ANY OTHER MAN IN THE LAST 12 MONTHS?	Yes .....1 No .....2	2⇒NEXT MODULE
SB7. THE LAST TIME YOU HAD SEXUAL INTERCOURSE WITH THIS OTHER MAN, WAS A CONDOM USED?	Yes .....1 No .....2	
SB8. WHAT IS YOUR RELATIONSHIP TO THIS MAN?  <i>If man is 'boyfriend' or 'fiancée', ask:</i> WAS YOUR BOYFRIEND/FIANCÉE LIVING WITH YOU WHEN YOU LAST HAD SEX? <i>If 'yes', circle 1. If 'no', circle 2.</i>	Spouse / cohabiting partner .....1 Man is boyfriend / fiancée .....2 Other friend.....3 Casual acquaintance .....4 Other (specify) .....6	1⇒SB10

SB9. HOW OLD IS THIS PERSON?  <i>If response is DK, probe:</i> ABOUT HOW OLD IS THIS PERSON?	Age of sexual partner .....__ __  DK.....98	
SB10. OTHER THAN THESE TWO MEN, HAVE YOU HAD SEX WITH ANY OTHER MAN IN THE LAST 12 MONTHS?	Yes .....1 No .....2	2⇒NEXT MODULE
SB11. IN TOTAL, WITH HOW MANY DIFFERENT MEN HAVE YOU HAD SEX IN THE LAST 12 MONTHS?	No. of partners.....__ __	





## **OPTIONAL QUESTIONS AND QUESTION MODULES**

1. ADDITIONAL HOUSEHOLD CHARACTERISTICS
2. SECURITY OF TENURE AND DURABILITY OF HOUSING
3. CHILD DISCIPLINE
4. SOURCE AND COST OF SUPPLIES
  - a. INSECTICIDE-TREATED MOSQUITO NETS
  - b. ORAL REHYDRATION SOLUTIONS PACKETS
  - c. ANTIBIOTICS FOR SUSPECTED PNEUMONIA
  - d. ANTI-MALARIAL MEDICINES
5. CONTRACEPTION AND UNMET NEED
6. ATTITUDES TOWARDS DOMESTIC VIOLENCE
7. CHILD DEVELOPMENT
8. DISABILITY
9. MATERNAL MORTALITY

## ADDITIONAL HOUSEHOLD CHARACTERISTICS

HC11. DOES ANY MEMBER OF THIS HOUSEHOLD OWN ANY LAND THAT CAN BE USED FOR AGRICULTURE?	Yes ..... 1 No ..... 2	2⇒HC13
HC12. HOW MANY HECTARES OF AGRICULTURAL LAND DO MEMBERS OF THIS HOUSEHOLD OWN?  <i>If more than 97, record '97'.</i> <i>If unknown, record '98'.</i>	Hectares ..... ____ ____	
HC13. DOES THIS HOUSEHOLD OWN ANY LIVESTOCK, HERDS, OR FARM ANIMALS?	Yes ..... 1 No ..... 2	2⇒NEXT MODULE
HC14. HOW MANY OF THE FOLLOWING ANIMALS DOES THIS HOUSEHOLD HAVE?  CATTLE?  MILK COWS OR BULLS?  HORSES, DONKEYS, OR MULES?  GOATS?  SHEEP?  CHICKENS?  <i>If none, record '00'.</i> <i>If more than 97, record '97'.</i> <i>If unknown, record '98'.</i>	Cattle ..... ____ ____  Milk cows or bulls ..... ____ ____  Horses, donkeys, or mules..... ____ ____  Goats ..... ____ ____  Sheep ..... ____ ____  Chickens..... ____ ____	

Countries may add to the list of items in HC9 items of furniture (such as a table, a chair, a sofa, a bed, an armoire, or a cupboard or cabinet). In addition, each country should add at least four additional household appliances so that the list includes at least three items that even a poor household may have, at least three items that a middle income household may have, and at least three items that a high income household may have. Some possible additions are clock, water pump, grain grinder, fan, blender, water heater, electric generator, washing machine, microwave oven, computer, VCR or DVD player, cassette or CD player, camera, air conditioner or cooler, color TV, sewing machine.

Countries may add other country-specific animals, such as oxen, water buffalo, camels, llamas, alpacas, pigs, ducks, geese, or elephants to the list in HC14.

## SECURITY OF TENURE AND DURABILITY OF HOUSING

HC15A. DO YOU OR SOMEONE IN THIS HOUSEHOLD OWN THIS DWELLING, OR DO YOU RENT THIS DWELLING?	Own ..... 1 Rent ..... 2 Rent free/squatter/other ..... 3	2⇒HC15D 3⇒HC15D
HC15B. DO YOU OR SOMEONE IN THIS HOUSEHOLD HAVE A TITLE DEED FOR THIS DWELLING?	Yes ..... 1 No ..... 2	1⇒HC15F
HC15C. WHAT KIND OF DOCUMENT DO YOU HAVE FOR THE OWNERSHIP OF THIS DWELLING?  ANYTHING ELSE?  <i>Record all items mentioned.</i>	Certificate of occupation (or adjudication certificate) ..... A Property tax certification ..... B Utility bills ..... C  Other ( <i>specify</i> ) ..... X None/No document ..... Y	} ⇒HC15F
HC15D. DO YOU HAVE A WRITTEN RENTAL CONTRACT FOR THIS DWELLING?	Yes ..... 1 No ..... 2	1⇒HC15F
HC15E. DO YOU HAVE ANY DOCUMENTATION OR AGREEMENT FOR THE RENTAL OF THIS DWELLING?  <i>If Yes, WHAT KIND OF DOCUMENT OR AGREEMENT DO YOU HAVE FOR THE RENTAL OF THIS DWELLING?</i>  ANYTHING ELSE?  <i>Record all items mentioned.</i>	Informal agreement (written) ..... A Verbal agreement (no document) ..... B  Occupied rent free With knowledge of owner ..... C Without knowledge of owner ..... D  Other ( <i>specify</i> ) ..... X None/No document ..... Y	
HC15F. DO YOU FEEL SECURE FROM EVICTION FROM THIS DWELLING?	Yes ..... 1 No ..... 2 DK ..... 8	
HC15G. HAVE YOU BEEN EVICTED FROM YOUR HOME AT ANY TIME DURING THE PAST 5 YEARS?	Yes ..... 1 No ..... 2	
HC15H. Dwelling located in or near:  <i>Observe, and circle all items that describe the location of dwelling.</i>	Landslide area ..... A Flood-prone area ..... B River bank ..... C Steep hill ..... D Garbage mountain/pile ..... E Industrial pollution area ..... F Railroad ..... G Power plant ..... H Flyover ..... I None of the above ..... Y	
HC15I. Condition of dwelling:  <i>Record observation.</i>  <i>Record all that apply.</i>	Cracks/openings in walls ..... A No windows ..... B Windows with broken glass/no glass ..... C Visible holes in the roof ..... D Incomplete roof ..... E Insecure door ..... F None of the above ..... Y	
HC15J. Dwelling surroundings:  <i>Record observation.</i>  <i>Record all that apply.</i>	Very narrow passage between houses instead of road ..... A Too many power cables connecting to neighborhood's main distribution post ..... B None of the above ..... Y	

Security of tenure questions on eviction for the Woman questionnaire

ST1. DO YOU FEEL SECURE FROM EVICTION FROM THIS DWELLING?	Yes .....	1	
	No .....	2	
	DK .....	8	

## CHILD DISCIPLINE MODULE

**TABLE 1: CHILDREN AGED 2-14 YEARS ELIGIBLE FOR CHILD DISCIPLINE QUESTIONS**

Review the household listing and list each of the children aged 2-14 years below in order according to their line number (HL1). Do not include other household members outside of the age range 2-14 years. Record the line number, name, sex, 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).

CD1. Rank no.	CD2. Line no. from HL1.	CD3. Name from HL2.	CD4. Sex from HL4.		CD5. Age from HL5.	CD6. Line no. of mother/ caretaker from HL7 or HL8.
LINE	LINE	NAME	M	F	AGE	MOTHER
01	___		1	2	___	___
02	___		1	2	___	___
03	___		1	2	___	___
04	___		1	2	___	___
05	___		1	2	___	___
06	___		1	2	___	___
07	___		1	2	___	___
08	___		1	2	___	___
CD7.	TOTAL CHILDREN AGED 2-14 YEARS					___

If there is only one child age 2-14 years in the household, then skip table 2 and go to CD9; write down the rank number of the child and continue with CD11

**TABLE 2: SELECTION OF RANDOM CHILD FOR CHILD DISCIPLINE QUESTIONS**

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

CD8. Last digit of the questionnaire number	TOTAL NUMBER OF ELIGIBLE CHILDREN IN THE HOUSEHOLD							
	1	2	3	4	5	6	7	8+
0	1	2	2	4	3	6	5	4
1	1	1	3	1	4	1	6	5
2	1	2	1	2	5	2	7	6
3	1	1	2	3	1	3	1	7
4	1	2	3	4	2	4	2	8
5	1	1	1	1	3	5	3	1
6	1	2	2	2	4	6	4	2
7	1	1	3	3	5	1	5	3
8	1	2	1	4	1	2	6	4
9	1	1	2	1	2	3	7	5

CD9. Record the rank number of the selected child	Rank number of child ..... _ _
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CHILD DISCIPLINE MODULE		CD
Identify eligible child aged 2 to 14 in the household using the tables on the preceding page, according to your instructions. Ask to interview the mother or primary caretaker of the selected child (identified by the line number in CD6).		
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 number .....	
CD12. ALL ADULTS USE CERTAIN WAYS TO TEACH CHILDREN THE RIGHT BEHAVIOUR OR TO ADDRESS A BEHAVIOUR PROBLEM. I WILL READ VARIOUS METHODS THAT ARE USED AND I WANT YOU TO TELL ME IF YOU OR ANYONE ELSE IN YOUR HOUSEHOLD HAS USED THIS METHOD WITH (name) IN THE PAST MONTH.		
CD12A. TOOK AWAY PRIVILEGES, FORBADE SOMETHING (name) LIKED OR DID NOT ALLOW HIM/HER TO LEAVE HOUSE).	Yes .....1 No .....2	
CD12B. EXPLAINED WHY SOMETHING (THE BEHAVIOR) WAS WRONG.	Yes .....1 No .....2	
CD12C. SHOOK HIM/HER.	Yes .....1 No .....2	
CD12D. SHOUTED, YELLED AT OR SCREAMED AT HIM/HER.	Yes .....1 No .....2	
CD12E. GAVE HIM/HER SOMETHING ELSE TO DO.	Yes .....1 No .....2	
CD12F. SPANKED, HIT OR SLAPPED HIM/HER ON THE BOTTOM WITH BARE HAND.	Yes .....1 No .....2	
CD12G. HIT HIM/HER ON THE BOTTOM OR ELSEWHERE ON THE BODY WITH SOMETHING LIKE A BELT, HAIRBRUSH, STICK OR OTHER HARD OBJECT.	Yes .....1 No .....2	
CD12H. CALLED HIM/HER DUMB, LAZY, OR ANOTHER NAME LIKE THAT.	Yes .....1 No .....2	
CD12I. HIT OR SLAPPED HIM/HER ON THE FACE, HEAD OR EARS.	Yes .....1 No .....2	
CD12J. HIT OR SLAPPED HIM/HER ON THE HAND, ARM, OR LEG.	Yes .....1 No .....2	
CD12K. BEAT HIM/HER UP WITH AN IMPLEMENT (HIT OVER AND OVER AS HARD AS ONE COULD).	Yes .....1 No .....2	
CD13. DO YOU BELIEVE THAT IN ORDER TO BRING UP (RAISE, EDUCATE) (name) PROPERLY, YOU NEED TO PHYSICALLY PUNISH HIM/HER?	Yes .....1 No .....2 Don't know/no opinion .....8	

## SOURCE AND COST OF SUPPLIES FOR INSECTICIDE-TREATED MOSQUITO NETS

<p>TN3A. WHERE DID YOU GET THE <i>(name of net highest in the list of nets available in the household, in TN3)</i> MOSQUITO NET?</p> <p><i>Ask question in relation to the most effective mosquito net available in the household (Check TN3). If there is more than one net in the same category, ask question referring to the most recently obtained net.</i></p>	<div style="margin-bottom: 10px;"> <b>Public sector</b>  Govt. hospital..... 11  Govt. health centre ..... 12  Govt. health post ..... 13  Village health worker ..... 14  Mobile/outreach clinic ..... 15  Other public (<i>specify</i>) ..... 16 </div> <div style="margin-bottom: 10px;"> <b>Private medical sector</b>  Private hospital/clinic ..... 21  Private physician ..... 22  Private pharmacy ..... 23  Mobile clinic ..... 24  Other private medical (<i>specify</i>) ..... 26 </div> <div style="margin-bottom: 10px;"> <b>Other source</b>  Relative or friend ..... 31  Shop ..... 32  Traditional practitioner ..... 33 </div> <div style="margin-bottom: 10px;"> Other (<i>specify</i>) ..... 96  DK..... 98 </div>
<p>TN3B. HOW MUCH DID YOU PAY FOR THE <i>(name of net highest in the list of nets available in the household, in TN3)</i> MOSQUITO NET?</p> <p><i>Ask question in relation to the most effective mosquito net available in the household (Check TN3). If there is more than one net in the same category, ask question referring to the most recently obtained net.</i></p>	<div style="margin-bottom: 10px;"> Local currency ..... _ _ _ _ </div> <div style="margin-bottom: 10px;"> Free ..... 9996  DK..... 9998 </div>



## SOURCE AND COST OF SUPPLIES FOR ORS PACKETS

<b>CA4A. Check CA2A: ORS packet used?</b>  <input type="checkbox"/> Yes. ⇒ Continue with CA4B  <input type="checkbox"/> No. ⇒ Go to CA5		
<b>CA4B. WHERE DID YOU GET THE (local name for ORS packet from CA2A)?</b>	Public sector Govt. hospital..... 11 Govt. health centre ..... 12 Govt. health post ..... 13 Village health worker ..... 14 Mobile/outreach clinic ..... 15 Other public ( <i>specify</i> ) ..... 16  Private medical sector Private hospital/clinic ..... 21 Private physician ..... 22 Private pharmacy ..... 23 Mobile clinic ..... 24 Other private medical ( <i>specify</i> ) ..... 26  Other source Relative or friend ..... 31 Shop ..... 32 Traditional practitioner ..... 33  Other ( <i>specify</i> ) ..... 96 DK..... 98	
<b>CA4C. HOW MUCH DID YOU PAY FOR THE (local name for ORS packet from CA2A)?</b>	Local currency .....  Free ..... 9996 DK..... 9998	

## SOURCE AND COST OF SUPPLY FOR ANTIBIOTICS FOR SUSPECTED PNEUMONIA

<b>CA11A. Check CA11: Antibiotic given?</b>		
<input type="checkbox"/> <i>Yes.</i> ⇒ Continue with CA11B		
<input type="checkbox"/> <i>No.</i> ⇒ Go to CA12		
<b>CA11B. WHERE DID YOU GET THE ANTIBIOTIC?</b>	Public sector Govt. hospital..... 11 Govt. health centre ..... 12 Govt. health post ..... 13 Village health worker ..... 14 Mobile/outreach clinic..... 15 Other public ( <i>specify</i> ) ..... 16  Private medical sector Private hospital/clinic ..... 21 Private physician ..... 22 Private pharmacy ..... 23 Mobile clinic ..... 24 Other private medical ( <i>specify</i> ) ..... 26  Other source Relative or friend ..... 31 Shop ..... 32 Traditional practitioner ..... 33  Other ( <i>specify</i> ) ..... 96 DK..... 98	
<b>CA11C. HOW MUCH DID YOU PAY FOR THE ANTIBIOTIC?</b>	Local currency .....  Free ..... 9996 DK..... 9998	

## SOURCE AND COST OF SUPPLY OF ANTI-MALARIAL MEDICINES

<p><b>ML9A. WHERE DID YOU GET THE (name of anti-malarial from ML4 or ML7)?</b></p> <p><i>If more than one anti-malarial is mentioned in ML4 or ML7, refer to the first anti-malarial given for the fever (the anti-malarial given on the day recorded in ML9).</i></p>	<div style="margin-bottom: 10px;"> <b>Public sector</b>  Govt. hospital..... 11  Govt. health centre ..... 12  Govt. health post ..... 13  Village health worker ..... 14  Mobile/outreach clinic ..... 15  Other public (<i>specify</i>) ..... 16 </div> <div style="margin-bottom: 10px;"> <b>Private medical sector</b>  Private hospital/clinic ..... 21  Private physician ..... 22  Private pharmacy ..... 23  Mobile clinic ..... 24  Other private medical (<i>specify</i>) ..... 26 </div> <div style="margin-bottom: 10px;"> <b>Other source</b>  Relative or friend ..... 31  Shop ..... 32  Traditional practitioner ..... 33 </div> <div> Other (<i>specify</i>) ..... 96  DK..... 98 </div>
<p><b>ML9B. HOW MUCH DID YOU PAY FOR THE (name of anti-malarial from ML4 or ML7)?</b></p> <p><i>Refer to the same anti-malarial as in ML9A above</i></p>	<div style="margin-bottom: 10px;"> Local currency ..... _ _ _ _ </div> <div> Free ..... 9996  DK..... 9998 </div>

CONTRACEPTION AND UNMET NEED		CP
CP1. I WOULD LIKE TO TALK WITH YOU ABOUT ANOTHER SUBJECT – FAMILY PLANNING – AND YOUR REPRODUCTIVE HEALTH.  ARE YOU PREGNANT NOW?	Yes, currently pregnant ..... 1  No ..... 2  Unsure or DK..... 8	2⇒CP2  8⇒CP2
CP1A. AT THE TIME YOU BECAME PREGNANT DID YOU WANT TO BECOME PREGNANT <u>THEN</u> , DID YOU WANT TO WAIT UNTIL <u>LATER</u> , OR DID YOU <u>NOT WANT</u> TO HAVE ANY MORE CHILDREN?	Then ..... 1 Later ..... 2 Not want more children ..... 3	1⇒CP4B 2⇒CP4B 3⇒CP4B
CP2. SOME PEOPLE USE VARIOUS WAYS OR METHODS TO DELAY OR AVOID A PREGNANCY. ARE YOU CURRENTLY DOING SOMETHING OR USING ANY METHOD TO DELAY OR AVOID GETTING PREGNANT?	Yes ..... 1  No ..... 2	2⇒CP4A
CP3. WHICH METHOD ARE YOU USING?  <i>Do not prompt.</i> <i>If more than one method is mentioned, circle each one.</i>	Female sterilization ..... A Male sterilization..... B Pill..... C IUD ..... D Injections ..... E Implants..... F Condom ..... G Female condom..... H Diaphragm..... I Foam/jelly ..... J Lactational amenorrhoea method (LAM)..... K Periodic abstinence ..... L Withdrawal..... M  Other ( <i>specify</i> ) ..... X	
CP4A. NOW I WOULD LIKE TO ASK SOME QUESTIONS ABOUT THE FUTURE. WOULD YOU LIKE TO HAVE (A/ANOTHER) CHILD, OR WOULD YOU PREFER NOT TO HAVE ANY (MORE) CHILDREN?  CP4B. <i>If currently pregnant:</i> NOW I WOULD LIKE TO ASK SOME QUESTIONS ABOUT THE FUTURE. AFTER THE CHILD YOU ARE NOW EXPECTING, WOULD YOU LIKE TO HAVE ANOTHER CHILD, OR WOULD YOU PREFER NOT TO HAVE ANY (MORE) CHILDREN?	Have (a/another) child ..... 1  No more/none..... 2  Says she cannot get pregnant ..... 3  Undecided/don't know ..... 8	2⇒CP4D  3⇒NEXT MODULE 8⇒CP4D
CP4C. HOW LONG WOULD YOU LIKE TO WAIT BEFORE THE BIRTH OF (A/ANOTHER) CHILD?	Months..... 1 ____  Years ..... 2 ____  Soon/now ..... 993 Says she cannot get pregnant ..... 994 After marriage..... 995 Other ..... 996 Don't know..... 998	994⇒NEXT MODULE

CP4D. *Check CPI:*

☐ *Currently pregnant? ⇒ Go to Next Module*

☐ *Not currently pregnant or unsure? ⇒ Continue with CP4E*

CP4E. DO YOU THINK YOU ARE PHYSICALLY ABLE  
TO GET PREGNANT AT THIS TIME?

Yes .....	1
No .....	2
DK .....	8

## ATTITUDES TOWARD DOMESTIC VIOLENCE

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 children .....	1	2	8
DV1C. IF SHE ARGUES WITH HIM? Argues .....	1	2	8
DV1D. IF SHE REFUSES SEX WITH HIM? Refuses sex .....	1	2	8
DV1E. IF SHE BURNS THE FOOD? Burns food .....	1	2	8

CHILD DEVELOPMENT		CE
<i>Question CE1 is to be administered only once to each caretaker</i>		
CE1. HOW MANY BOOKS ARE THERE IN THE HOUSEHOLD? PLEASE INCLUDE SCHOOLBOOKS, BUT NOT OTHER BOOKS MEANT FOR CHILDREN, SUCH AS PICTURE BOOKS  <i>If 'none' enter 00</i>	Number of non-children's books.....0 ____  Ten or more non-children's books .....10	
CE2. HOW MANY CHILDREN'S BOOKS OR PICTURE BOOKS DO YOU HAVE FOR (name)?  <i>If 'none' enter 00</i>	Number of children's books .....0 ____  Ten or more books .....10	
CE3. I AM INTERESTED IN LEARNING ABOUT THE THINGS THAT (name) PLAYS WITH WHEN HE/SHE IS AT HOME.  WHAT DOES (name) PLAY WITH?  DOES HE/SHE PLAY WITH  HOUSEHOLD OBJECTS, SUCH AS BOWLS, PLATES, CUPS OR POTS?  OBJECTS AND MATERIALS FOUND OUTSIDE THE LIVING QUARTERS, SUCH AS STICKS, ROCKS, ANIMALS, SHELLS, OR LEAVES?  HOMEMADE TOYS, SUCH AS DOLLS, CARS AND OTHER TOYS MADE AT HOME?  TOYS THAT CAME FROM A STORE?  <i>If the respondent says "YES" to any of the prompted categories, then probe to learn specifically what the child plays with to ascertain the response</i>  <i>Code Y if child does not play with any of the items mentioned.</i>	Household objects (bowls, plates, cups, pots) ..... A  Objects and materials found outside the living quarters (sticks, rocks, animals, shells, leaves) ..... B  Homemade toys (dolls, cars and other toys made at home) C  Toys that came from a store ..... D  No playthings mentioned ..... Y	
CE4. SOMETIMES ADULTS TAKING CARE OF CHILDREN HAVE TO LEAVE THE HOUSE TO GO SHOPPING, WASH CLOTHES, OR FOR OTHER REASONS AND HAVE TO LEAVE YOUNG CHILDREN WITH OTHERS. SINCE LAST (day of the week) HOW MANY TIMES WAS (name) LEFT IN THE CARE OF ANOTHER CHILD (THAT IS, SOMEONE LESS THAN 10 YEARS OLD)?  <i>If 'none' enter 00</i>	Number of times ..... ____	
CE5. IN THE PAST WEEK, HOW MANY TIMES WAS (name) LEFT ALONE?  <i>If 'none' enter 00</i>	Number of times ..... ____	

DISABILITY												DA
To be administered to caretakers of all children 2 through 9 years old living in the household. For household members below age 2 or above age 9, leave rows blank												
I WOULD LIKE TO ASK YOU IF ANY CHILDREN IN THIS HOUSEHOLD AGED 2 THROUGH 9 HAS ANY OF THE HEALTH CONDITIONS I AM GOING TO MENTION TO YOU.												
DA1. Line no.	DA2. Child's name	DA3. COMPARED WITH OTHER CHILDREN, DOES OR DID (name) HAVE ANY SERIOUS DELAY IN SITTING, STANDING, OR WALKING?	DA4. COMPARED WITH OTHER CHILDREN, DOES (name) HAVE DIFFICULTY SEEING, EITHER IN THE DAYTIME OR AT NIGHT?	DA5. DOES (name) APPEAR TO HAVE DIFFICULTY HEARING? (USES HEARING AID, HEARS WITH DIFFICULTY, COMPLETELY DEAF?)	DA6. WHEN YOU TELL (name) TO DO SOMETHING, DOES HE/SHE SEEM TO UNDERSTAND WHAT YOU ARE SAYING?	DA7. DOES (name) HAVE DIFFICULTY IN WALKING OR MOVING HIS/HER ARMS OR DOES HE/SHE HAVE WEAKNESS AND/OR STIFFNESS IN THE ARMS OR LEGS?	DA8. DOES (name) SOMETIMES HAVE FITS, BECOME RIGID, OR LOSE CONSC- IOUSNESS?	DA9. DOES (name) LEARN TO DO THINGS LIKE OTHER CHILDREN HIS/HER AGE?	DA10. DOES (name) SPEAK AT ALL (CAN HE/SHE MAKE HIM OR HERSELF UNDERSTOOD IN WORDS; CAN SAY ANY RECOGNIZABLE WORDS)?	DA11. (For 3-9 year olds): Is (name)'S SPEECH IN ANY WAY DIFFERENT FROM NORMAL (NOT CLEAR ENOUGH TO BE UNDERSTOOD BY PEOPLE OTHER THAN THE IMMEDIATE FAMILY)?	DA12. (For 2- year-olds): CAN (name) NAME AT LEAST ONE OBJECT (FOR EXAMPLE, AN ANIMAL, A TOY, A CUP, A SPOON)?	DA13. COMPARED WITH OTHER CHILDREN OF THE SAME AGE, DOES (name) APPEAR IN ANY WAY MENTALLY BACKWARD, DULL OR SLOW?
LINE	NAME	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
01		1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
02		1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
03		1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
04		1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
05		1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
06		1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
07		1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
08		1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
09		1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
10		1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
11		1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
12		1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
13		1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
14		1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
15		1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2



MATERNAL MORTALITY MODULE								MM
Administer to each adult household member. Copy name and line number of each adult (age 15 or over) in the household. If one of these adults is not at home, another adult may respond for him/her. Indicate this by placing a '1' in MM3, and insert line number of proxy respondent in MM4. For household members below age 15, leave rows blank								
MM1. Line no.	MM2. Name	MM3. IS THIS A PROXY REPORT?  1 YES ⇒MM4  2 NO ⇒MM5	MM4. Line no. of proxy respondent (from household listing HLI)	MM5. HOW MANY SISTERS (BORN TO THE SAME MOTHER) HAVE YOU EVER HAD?  98= DON'T KNOW	MM6. HOW MANY OF THESE SISTERS EVER REACHED AGE 15?  98= DON'T KNOW	MM7. HOW MANY OF THESE SISTERS (WHO ARE AT LEAST 15 YEARS OLD) ARE ALIVE NOW?  98= DON'T KNOW	MM8. HOW MANY OF THESE SISTERS WHO REACHED AGE 15 OR MORE HAVE DIED?  98= DON'T KNOW	MM9. HOW MANY OF THESE DEAD SISTERS DIED WHILE PREGNANT, OR DURING CHILDBIRTH, OR DURING THE SIX WEEKS AFTER THE END OF PREGNANCY?  98= DON'T KNOW
LINE	NAME	Y N	LINE					
01		1 2	___	___	___	___	___	___
02		1 2	___	___	___	___	___	___
03		1 2	___	___	___	___	___	___
04		1 2	___	___	___	___	___	___
05		1 2	___	___	___	___	___	___
06		1 2	___	___	___	___	___	___
07		1 2	___	___	___	___	___	___
08		1 2	___	___	___	___	___	___
09		1 2	___	___	___	___	___	___
10		1 2	___	___	___	___	___	___
11		1 2	___	___	___	___	___	___
12		1 2	___	___	___	___	___	___
13		1 2	___	___	___	___	___	___
14		1 2	___	___	___	___	___	___
15		1 2	___	___	___	___	___	___

# APPENDIX THREE

## INSTRUCTIONS FOR INTERVIEWERS

### SURVEY COORDINATORS:

CUSTOMIZE THESE INSTRUCTIONS BASED ON YOUR QUESTIONNAIRE, ENSURING THAT THE INFORMATION IN THIS APPENDIX IS APPROPRIATE TO YOUR SURVEY. SOME COUNTRIES MAY NEED TO PROVIDE SLIGHTLY DIFFERENT INSTRUCTIONS, DEPENDING ON THEIR QUESTIONNAIRES. DELETE INSTRUCTIONS ON MODULES NOT USED IN YOUR COUNTRY. ORDER THE INSTRUCTIONS IN ACCORDANCE WITH YOUR QUESTIONNAIRE.

THEN TRANSLATE THIS APPENDIX INTO THE INTERVIEWERS' LOCAL LANGUAGE(S), IF NECESSARY. USE THESE INSTRUCTIONS DURING THE TRAINING OF THE INTERVIEWERS AND PROVIDE A COPY TO EACH INTERVIEWER.

**Note:** INTERVIEWER QUESTIONS APPEAR IN SMALL CAPITAL LETTERS AND BOLD PRINT; instructions to interviewers appear in regular fonts; AND NOTES TO SURVEY COORDINATORS APPEAR IN SMALL CAPITAL LETTERS IN BOXED PARAGRAPHS.

## MICS3 QUESTIONNAIRES AND ELIGIBLE RESPONDENTS

In each home you visit, you should begin by interviewing a knowledgeable adult member of the household to fill in the Household Questionnaire.

Note that in the Household Questionnaire there are a number of modules that you will need to administer to the mother or primary adult caretaker of eligible children living in the household. This means that you may complete the household interview with more than one respondent answering questions to different modules. This applies only to the Household Questionnaire and not to the individual questionnaires.

When you have completed the Household Questionnaire, you will have identified women (aged 15-49 years) and mothers or primary caretakers of children under five to whom you will administer the individual questionnaires.

- You should interview separately all women aged 15 through 49 who reside in the household to fill in the Questionnaire for Individual Women.
- You should administer the Questionnaire for Children Under Five to mothers or primary caretakers of children under 5 years of age who are residing in the household.

You will identify these individuals by completing the Household Listing Form in the Household Questionnaire.

If you visit a household with no members eligible for the individual questionnaires (Questionnaire for Individual Women and Questionnaire for Children Under Five), you must still ask questions about the household to a knowledgeable adult member and complete the Household Questionnaire.

Your supervisor will give you a list or tell you how to find the households to visit. You must visit all these households.

If no one is at home when you go to interview the household, ask the neighbours whether the house is inhabited. If it is occupied, ask the neighbours when the household members will return. Arrange with your supervisor to go back to the dwelling when it will be occupied or at the end of the day. Note those plans on your cluster control sheet and note the time you are to return on the first page of the questionnaire (Household Information Panel). Do not substitute another household.

If no adult is at home, arrange to come back at another time. Do not interview a temporary caretaker of the children, such as a babysitter; do not interview anyone who does not usually live in the household.

Each household in the sample has to be visited at least three times before you can mark the household as 'Not at home', unless otherwise instructed by your supervisor. There may be cases when you learn that the household will be away for an extended period, and will definitely not return within the fieldwork period. In such cases, three visits to the household may not be necessary. However, even in such cases, the ultimate decision will have to be taken by your supervisor.

If an eligible woman is not available for interview or not at home, ask a family member or neighbour when she will return. Note this on the Women's Information Panel, follow your supervisor's instructions, and return to interview her at that time. Do not take responses for the women's questionnaire from anyone other than the eligible woman herself.

The person to be interviewed for the Questionnaire for Children Under Five should be the mother or the primary adult caretaker (if the mother is not residing in the household or is deceased). If she/he is not available for interview or not at home, try to find out when she/he will be available and return later. If the person will not be available or will not return home at a time later that day when it is feasible to interview her/him, follow the instructions of your supervisor about the number of times you should attempt the interview.

If a child under five is not available, but the mother/primary caretaker is, complete the questionnaire for the child and do not complete the last module (Anthropometry). If the child is still not available after the call-back visit, record the result in question AN4 as 'Not Present'.

In cases where the mothers or primary caretakers of children eligible for various modules in the Household Questionnaire (such as Disability, Child Labour or Child Discipline) are not available at the time of your visit, note this on the cover page of the Household Questionnaire, inform your supervisor, and re-visit the household to talk to these persons.

Ask your supervisor if you are in doubt about what to do when you cannot locate a household, or you cannot complete an interview. Always keep a record on the cluster control sheet of the households you visited where nobody was at home. If it is not possible to interview an eligible woman, record this on the Women's Information Panel of the questionnaire. If it is not possible to interview a mother or primary caretaker, record this on the Under-Five Child Information Panel of the Questionnaire for Children Under Five.

A standard coding and formatting system has been used throughout the questionnaires. For example, the codes '8', '98', '998' and '9998' are used for 'Doesn't know' (DK) responses. The codes '6', '96', '996' and '9996' are reserved for 'Other' responses. In many questions, there are instructions to skip additional questions depending on the answer given. Be very careful in following skip instructions; remember that an incorrect skip during the interview may have implications on all questions and responses that follow. In some cases, an incorrect skip may result in a failure to administer a whole module.

**SURVEY COORDINATORS:** USE THE SECTION ON 'DESIGN FEATURES' IN APPENDIX TWO TO PROVIDE INTERVIEWERS WITH A DETAILED LIST OF STANDARD CODING AND FORMATTING SYSTEMS USED IN THE QUESTIONNAIRES.

## HOW TO HANDLE AN INTERVIEW

Conduct yourself in a relaxed informal way, but be thorough. Use the questionnaires carefully.

- Ensure that you understand the exact purpose of each question. This will help you to know if the responses you are receiving are adequate.
- Ask the questions exactly as they are written. Even small changes in wording can alter the meaning of a question.
- Ask the questions in the same order as they are given on the questionnaire.
- Ask all the questions, even if the respondent answers two questions at once. You can explain that you must ask each question individually, or say "Just so that I am sure..." or "Just to refresh my memory..." and then ask the question.

- Help your respondents to feel comfortable, but make sure you do not suggest answers to your questions. For example, do not ‘help’ a woman to remember various contraceptive methods.
- Do not leave a question unanswered unless you have been instructed to skip the question. Questions left blank are difficult to deal with later. In the office it may look as though you forgot to ask the question. Always write in 0 when a zero answer is given. For some questions, the code ‘Doesn’t know’ will already be provided, and after you are sure that the respondent is unable to provide you with an answer, you will be able to circle this response. In questions where a ‘Doesn’t know’ response is not printed on the questionnaire, you must make sure that the respondent comes up with an answer. In exceptional cases where this may not be possible, indicate this on the questionnaire with a note.
- Record answers immediately. Write down any pertinent remarks made by other people present, and mention who the other people are. Check the whole questionnaire before you leave the household to be sure it is completed correctly.
- Thank the respondent for her (or his) cooperation. Remember the survey schedule, and remember that you are part of a team. Do not stay and talk for too long, but do not rush the interview either.

### **GENERAL POINTS**

#### **Dress neatly**

The first impression a respondent has of you is formed through your appearance. The way you dress may affect whether your interview is successful or not. Dress neatly and simply.

#### **Gain rapport with the respondent**

Try not to arrive at a respondent’s house at an inconvenient time of day, such as mealtimes. Try to arrive when the respondent will not be too busy to answer questions.

Introduce yourself by name and show your identification. Explain the survey and why you want to interview the women in the household, exactly as your introduction tells you to.

Be prepared to explain what is meant by confidentiality and to convince respondents to participate if they are reluctant.

If the respondent refuses to be interviewed, note the reasons on the questionnaire, if possible.

Remain calm and polite at all times.

#### **Probe for adequate responses**

Pause and wait if the respondent is trying to remember difficult items.

Ask the respondent to clarify her/his answer if necessary. You may have misunderstood the response.

Check for consistency between the answers a respondent gives. Treat the questionnaires as tools that you are using to converse with the respondent. Try to understand and remember the responses, and if there is an inconsistency, ask the questions again.

## HOW TO FILL IN THE HOUSEHOLD QUESTIONNAIRE

### CORE MODULES

The purpose of the Household Questionnaire is to provide information on general characteristics of the population and the households. You will use it to collect important information on a number of MICS3 indicators and to identify women who are eligible (qualified) to be interviewed for the Questionnaire for Individual Women and the mothers or primary caretakers of children under five who will be interviewed for the Questionnaire for Children Under Five.

Begin by saying the following to the respondent:

**WE ARE FROM (*country-specific affiliation*). WE ARE WORKING ON A PROJECT CONCERNED WITH FAMILY HEALTH AND EDUCATION. I WOULD LIKE TO TALK TO YOU ABOUT THIS. THE INTERVIEW WILL TAKE ABOUT (*number*) MINUTES. ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND YOUR ANSWERS WILL NEVER BE IDENTIFIED. DURING THIS TIME I WOULD LIKE TO SPEAK WITH THE HOUSEHOLD HEAD AND ALL MOTHERS OR OTHERS WHO TAKE CARE OF CHILDREN IN THE HOUSEHOLD. MAY I START NOW?**

**SURVEY COORDINATORS:** WHEN THE QUESTIONNAIRES ARE CUSTOMIZED, REPLACE (*country-specific affiliation*) WITH THE NAME OF THE IMPLEMENTING AGENCY IN YOUR COUNTRY. ESTIMATE THE APPROXIMATE DURATION OF AN INTERVIEW DURING THE PRE-TEST AND REPLACE (*number*) WITH THIS ESTIMATE.

You may change the wording of these introductory sentences as appropriate. However, you must make sure to include the following when you are introducing yourself: the name of the implementing agency; the topic of the survey; approximate duration of the interview; the issue of confidentiality; and with whom you would like to speak. If permission is given, begin the interview. If the respondent does not agree to continue, thank him/her and leave the household to go the next household. Later, discuss the refusal with your supervisor; you or another person from the team may attempt to interview the household for a second time. This will depend on your description of the refusal. However, remember that a household's participation in the survey must be on a voluntary basis, and potential respondents must never be forced to participate.

### HOUSEHOLD INFORMATION PANEL

The Household Information Panel consists of an upper (HH1 to HH8) and a lower (HH9 to HH15) panel. The upper panel should normally be filled in before you approach the household. Your supervisor will have provided the necessary information to you when you are assigned the household.

#### HH1. Cluster number

Enter the cluster number as instructed by your supervisor.

**HH2. Household number**

Enter the household number as instructed by your supervisor.

**HH3. Interviewer's name and number**

Enter your own name and identification number provided to you at the time of training.

**HH4. Supervisor's name and number**

Enter your supervisor's name and identification number. You will be provided with your supervisor's identification number as soon as you know who you will be working with.

**HH5. Day/month/year of interview**

Enter the date of the interview as day, month and year. If the interview is not completed on your first visit and you visit the household again, revise and enter final date of interview. In other words, the date here should be either when you have completed the Household Questionnaire or when the interview has not been conducted but there will be no more attempts to interview the household.

**HH6. Area**

Circle the code for area of residence as instructed by your supervisor. This will have been pre-determined; you will not be required to assess whether the household is in an urban or rural area.

**HH7. Region**

**SURVEY COORDINATORS:** ADAPT THE RESPONSE CODES AS APPROPRIATE.

Circle the code for region.

**HH8. Name of head of household**

Enter the full name of the head of household (HH). If you are not given the name of the head of household prior to approaching the household, leave this blank and fill it in after completing the Household Listing, column HL2. In cases when the name of the household head given to you prior to approaching the household is not the same as the household head you identify in the Household Listing, change the name here and write down the name of the current household head.

Complete questions HH10, HH11, HH12 and HH14 once you have completed the Household Listing Form on the next page.

**HH10. Respondent to Household Questionnaire**

Enter the name and line number (from the Household Listing, columns HL1 and HL2) of the respondent to the Household Questionnaire.

**HH11. Total number of household members**

Count the number of household members recorded in column HL1 of the Household Listing and enter the total here.

**HH12. Number of women eligible for interview**

Enter the total number of women eligible for interview for the Questionnaire for Individual Women – you will copy this from the row for totals at the bottom of the Household Listing, for HL6.

**HH14. Number of children under age five**

Enter the total number of children under five eligible for inclusion in the survey from the row for totals at the bottom of the Household Listing, for HL8. You will be using the Questionnaire for Children Under Five to interview the mothers or primary caretakers of these children.

You will complete question HH9 as soon as the Household Questionnaire has been completed, or after all attempts have been made to interview the household. Questions HH13 and HH15 should be filled in once you have concluded all individual interviews in the household – that is, when all mothers or primary caretakers of children under five have been interviewed, and questionnaires for each child under age five have been completed. Assuming that all interviews for the household have been successfully completed, the numbers in HH13 and HH15 should equal the total number of eligible women (HH12) and children under five (HH14), respectively. Since the maximum number of women interviewed for the Questionnaire for Individual Women cannot be higher than the number of eligible women in the household, the number in HH13 should never be greater than that in HH12. The same applies in the case of HH15 and HH13. If you are unable to complete all or part of the interviews for this household, note details in the space provided at the bottom of the panel.

**HH9. Result of household interview**

If the Household Questionnaire is completed, circle '1' for 'Completed'. If you have not been able to contact the household after repeated visits, circle '2' for 'Not at home'. If the household refuses to be interviewed, circle '3' for 'Refused'. If you are unable to locate the household or if the dwelling is destroyed, circle '4' for 'HH not found/destroyed'. If you have not been able to complete the Household Questionnaire for another reason, you should circle '6' for 'Other' and specify the reason in the space provided. Some examples of 'Other' codes might be: the household respondent is incapacitated; the questionnaire is partly completed; adult household members were not found at home after repeated visits.

**HH13. Number of women's questionnaires completed**

Once all of the Questionnaires for Individual Women have been completed for a particular household, enter the number completed here.

**HH15. Number of children's questionnaires completed**

Once all of the Questionnaires for Children Under Five have been completed for a particular household, enter the number completed here.

**Interviewer/supervisor notes**

Use this space to record notes about the interview with this household, such as call-back times, incomplete individual interview forms, number of attempts to re-visit, etc. Record the reasons for any incomplete or blank forms for this household (eligible women modules, under-five questionnaires, or any household modules that are not completed). Record other information about the interview that you think is pertinent.



**HH16. Data entry clerk**

**SURVEY COORDINATORS:** THE CLERK WHO ENTERS THE DATA FOR THIS HOUSEHOLD SHOULD FILL THIS IN AT THE TIME OF DATA ENTRY.

Leave this space blank. The data clerk will enter his/her number in the space provided.

**HOUSEHOLD LISTING FORM**

**SURVEY COORDINATORS:** CHECK THE DEFINITION OF 'HOUSEHOLD' IN USE IN YOUR COUNTRY. THIS WILL NORMALLY BE THE DEFINITION USED IN YOUR CENSUS. USE THIS DEFINITION IN THE SURVEY.

A household is a person or group of persons who usually live and eat together. Any adult member of the household can serve as the respondent for this section. As described below, there are a number of modules in the Household Questionnaire that you have to administer to mothers or primary caretakers of children. Therefore, it can be an advantage if you begin the Household Questionnaire with a mother or primary caretaker. While you should not make a specific effort to ensure this, you will indeed start the interview with such persons in many cases, since, in practice, these persons are more likely to be at home than, say, male household heads.

Note that the Household Listing Form includes **HL1. Line No.** This is the number used to identify each person listed. You must obtain a complete list of all persons who usually live in the household, but you do not need to fill in or do anything in this column since the numbers are already provided. This is a very important number, since once household members are assigned these line numbers as the Household Listing is being completed, they are identified with these line numbers throughout the questionnaires administered in this household.

You should begin by saying:

**FIRST, PLEASE TELL ME THE NAME OF EACH PERSON WHO USUALLY LIVES HERE, STARTING WITH THE HEAD OF THE HOUSEHOLD.**

List the head of the household in line 01. List all household members (HL2), their relationship to the household head (HL3), and their sex (HL4). Then ask:

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

Note that the household head is determined solely on the basis of what the respondent tells you. You are not required to assess who the household head is most likely to be, or whether the person stated as the household head has the necessary characteristics to be the household head.

Also note that if there are more than 15 household members, you will need to use a continuation sheet to record the additional household members. Please remember to change the line numbers of household members on the continuation sheet to read '16', '17', '18', etc., and to tick the box provided at the top of the Household Listing indicating that a continuation sheet has been used.

The Household Listing will be completed in two stages: first, names (HL2), relationship codes (HL3) and sex (HL4) of all household members are recorded until all household members are included in the list.

When the respondent is asked to provide the names of persons living in the household, their relationship to the head of the household and their sex is naturally mentioned during the course of listing the names. For this reason, the list is completed vertically for HL2, HL3 and HL4 during the first stage. Then, questions from HL5 to HL12 are asked for each person before moving to the next person.

**HL2. Name**

Fill in the name of each household member, starting with the head of household (the person who is considered to be responsible for the household). It is up to the respondent to define who the head of the household is. The head of the household should always be on the first row of the list. Never contest the respondent's answer.

Also note that the names of household members will never be used for analysis purposes. However, recording the names of all household members is important since you will be using these names to address the questions.

**HL3. WHAT IS THE RELATIONSHIP OF (*name*) TO THE HEAD OF THE HOUSEHOLD?**

Enter the code corresponding to how the person listed is related to the head of the household. Use the codes at the bottom of the Household Listing. Be particularly careful in doing this if the respondent is not the head of the household. Make sure that you record the relationship of each person to the household head, not the relationship to the respondent. For example, if the respondent is the wife of the head of the household and she says that Sola is her brother, then Sola should be coded as '09' ('Brother or sister-in-law'), not as '08' ('Brother or sister'), because Sola is a brother-in-law of the head of the household. Be very careful in obtaining this information correctly, since respondents tend to provide the relationship of the person to themselves, rather than to the head of the household.

If the head of the household is married to a woman who has a child from a previous marriage, that child's relationship to the head of the household should be coded as '14' ('Adopted/foster/stepchild'). If a household member is not related to the head of household, such as a friend who lives with the household, enter '15' ('Not related'). Enter '98' if the respondent doesn't know the relationship of a household member to the head of household.

**HL4. IS (*name*) MALE OR FEMALE?**

Circle '1' for 'Male' and '2' for 'Female'. Do not guess the sex of the household member from the name provided to you. When the respondent is listing everyone in the household, he/she may indicate the sex of the person at the same time, by saying "My sister Mary," for instance. In this case, you do not need to ask the sex of the household member again, since it is already obvious that the person is a female. However, when a name is mentioned that can be used for both males and females, never use your judgement. Even in cases when you think that the name would most likely be a male's (or a female's) name, have the respondent confirm the sex. This column should never be left blank.

As indicated above, if the household has more than 15 members, tick the box at the top of this page and use another listing page from another questionnaire. On this additional page, make sure that the line numbers of household members start from 16, by cancelling the pre-printed numbers and entering numbers starting from 16. Note that on this additional page you will have to change the pre-printed relationship code of member line number 16 into the relationship code of the person to the household head.

Once you have a complete list of names, relationship codes and sex, move across this page to ask and record answers to questions about individual persons. Start with the household head on line 01. When you have finished asking all questions for the person on line 01, continue to the person listed on line 02, etc.

**HL5. HOW OLD IS (*name*)? HOW OLD WAS (*name*) ON HIS/HER LAST BIRTHDAY?**

Enter each person's age in completed years, that is, his/her age at his/her last birthday. Completed age is also defined as 'the number of completed solar years since birth'. With this definition, since a 6-month-old baby has not completed a full solar year, his/her age will be entered as '00'. Note that you will be obtaining more accurate estimates of children's ages later.

This column should never be left blank.

If you have difficulty obtaining the ages of very elderly members of the household, you may enter the code '98', meaning 'Doesn't know/over age 50'. For household members younger than 50, completed ages must be entered.

**ELIGIBILITY FOR INDIVIDUAL MODULES:** Questions HL6, HL7 and HL8 concern eligibility information.

**HL6. Circle line no. if woman is age 15-49.**

Circle the line number in this column if the household member is a woman 15-49 years of age (this includes those age 15 and age 49). You will not ask this question to the respondent.

**HL7. For each child age 5-14: WHO IS THE MOTHER OR PRIMARY CARETAKER OF THIS CHILD?**

If the household member is a child between 5 and 14 years of age (this includes those age 5 and age 14), record the line number of his/her mother or primary caretaker in this column. Ask this question to the respondent if necessary.

**HL8. For each child under 5: WHO IS THE MOTHER OR PRIMARY CARETAKER OF THIS CHILD?**

If the household member is a child under the age of five (this includes those just born and those age 4, but not children who have completed 5 years of age), record the line number of his/her mother or primary caretaker in this column. Ask this question to the respondent if necessary.

***For children age 0-17 years ask HL9-HL12:***

For all children under age 18, we want to know whether either of their own (natural) parents is listed in the Household Listing, and their survival status. This information can be used to measure the prevalence of orphanhood and child fostering in the population. For everyone age 18 and older, HL9-12 will be left blank.

**HL9. IS (*name's*) NATURAL MOTHER ALIVE?**

By 'natural' we mean the biological mother. In many cultures, people consider other people's children whom they are raising as their own, especially children of their husband or sisters, etc. You should be certain that the respondent understands that you are asking about the woman who gave birth to the child.

Record whether or not the child's natural mother is still alive by circling the code corresponding to the response given. If the child's natural mother is not alive or if the respondent does not know, skip to HL11. Otherwise, continue to the question in the next column.

**HL10. *If alive:* DOES (*name's*) NATURAL MOTHER LIVE IN THIS HOUSEHOLD?**

If the natural mother is still alive, we want to know whether she lives in the household. If the mother does live in the household, ask who she is (she should be listed in the Household Listing if she lives in the household) and record her line number in the space provided. If the mother is not a member of the household (not listed in the Household Listing), record '00'.

**HL11. IS (*name's*) NATURAL FATHER ALIVE?**

**HL12. *If alive:* DOES (*name's*) NATURAL FATHER LIVE IN THIS HOUSEHOLD?**

Fill in these questions in exactly the same way as HL9 and HL10. This time, make sure to record the survival status and the line number of the natural (biological) fathers. If the father of the household member is not alive or his survival status is now known by the respondent, move to the next person on the list.

When you have completed the listing of all household members and all questions in the Household Listing, probe to see if there are any other household members you have not included in the list: **"ARE THERE ANY OTHER PERSONS LIVING HERE – EVEN IF THEY ARE NOT MEMBERS OF YOUR FAMILY OR DO NOT HAVE PARENTS LIVING IN THIS HOUSEHOLD? INCLUDING CHILDREN AT WORK OR AT SCHOOL?"** If yes, insert child's name and complete the form.

After you have made sure that there are no other household members to be included in the list, complete the row at the bottom of the household list, 'Totals'. Calculate the number of eligible women in the household and record the number under '**Women 15-49**', calculate the number of children aged 5-14 years in the household and record the number under '**Children 5-14**' and, finally, calculate the number of children under five, and record the number under '**Under-5s**'. The numbers recorded here for the women 15-49 and under-5s will indicate to you the number of individual women's and under-five questionnaires you should have in the household (see below). You will also record these numbers in HH12 and HH14 in the Household Information Panel.

When you have completed the Household Listing Form for all household members, prepare the individual questionnaire forms for this household:

- For each woman age 15-49 years, write her name and line number in the spaces provided (WM3 and WM4) at the top of her Questionnaire for Individual Women.
- For each child under age five, write his/her name and line number and the name and line number of his/her mother or caretaker in the spaces provided (UF3-6) at the top of the Questionnaire for Children Under Five.

You should now have a separate questionnaire for each eligible woman and child under five in the household, ready for use when you administer the questionnaires later on.

## EDUCATION MODULE

Continue line by line, asking the questions for each household member who is eligible (age five or older), as you did when completing the Household Listing Form. Note that the lines corresponding to household members under five should remain blank.

### ED1. *Line No:*

This is the number assigned to each person on the Household Listing Form. You do not need to fill in or do anything in this column since the numbers are already provided.

### ED1A. *Name:*

Copy the names of each person age five and older from the Household Listing Form (HL2) to their corresponding line numbers.

For each household member age five or older, ask ED2 and ED3. These questions ask about educational attainment for all household members in this age group. (If children younger than five attend school or pre-school, this information will be recorded in the Questionnaire for Children Under Five.) Any adult member of the household may provide this information for those not present.

### ED2. HAS (*name*) EVER ATTENDED SCHOOL OR PRE-SCHOOL?

Circle '1' if the answer is 'Yes'. If the answer is 'No', circle '2' and go to the household member on the next line.

The term 'school' includes primary, secondary and post-secondary schooling, as well as any other intermediate levels of schooling in the *formal school system*. It also includes technical or vocational training beyond the primary-school level, such as long-term courses in mechanics or secretarial work.

Schools that carry out non-standard curriculum are also included here. Ensure that respondents understand what is meant by 'non-standard curriculum'. A non-standard curriculum includes religious schools, such as Koranic schools, that do not teach a full, standard school curriculum. If a school teaches religious courses but also includes the standard curriculum – such as many Catholic schools – it would be coded as a standard school.

'Pre-school' is listed for children who do not attend grade 1 at age 5, but do attend some form of organized learning or early childhood education programme, whether or not such a programme is considered part of the school system. The definition of organized early learning programme does not refer to programmes offering only babysitting or child-minding.

### ED3. WHAT IS THE HIGHEST LEVEL OF SCHOOL (*name*) ATTENDED?

**SURVEY COORDINATORS:** ADAPT NON-STANDARD CURRICULUM CATEGORY AS NECESSARY. ENSURE THAT INTERVIEWERS AND RESPONDENTS UNDERSTAND WHAT IS MEANT BY A 'NON-STANDARD CURRICULUM', SUPPLYING LOCAL NAMES FOR SUCH SCHOOLS, IF POSSIBLE.

If the person has been to school, record the highest level of schooling attended by circling the code for the response. You may need to probe for the type of school attended. Circle '8' if the respondent 'Doesn't know'.

Then ask, **“WHAT IS THE HIGHEST GRADE (*name*) COMPLETED AT THIS LEVEL?”**

Enter the highest grade completed or ‘98’ for ‘DK’ (‘Doesn’t know’). If less than one grade, enter ‘00’. For instance, if a person has attended primary school but did not complete the first grade, then the level for this person will be circled as ‘1’, and the grade will be entered as ‘00’.

Similarly, for a child who is attending grade 5 in primary school at the time of the interview, the level will be coded as ‘1’ and the grade as ‘4’, since this person has not yet completed grade 5.

For each household member 5-24 years of age (this includes those age 5 and age 24), ask questions ED4-ED8, which inquire about school attendance. While the ideal respondent for these questions would be the mother or primary caretaker, any adult member of the household may provide the information.

Since questions from ED4 to ED8 refer to school attendance, they will have to be adapted to the situation at the time of the interview. All questions should be retained. However, the wording and coding will have to be changed. The objective of these questions is to capture the school attendance of household members in two consecutive school years. In the explanations below, information is provided on how this can be tackled.

**ED4. DURING THE (2004-2005) SCHOOL YEAR, DID (*name*) ATTEND SCHOOL OR PRESCHOOL AT ANY TIME?**

**SURVEY COORDINATORS:** ADAPT SCHOOL YEAR TO MATCH COUNTRY-SPECIFIC SCHOOL YEARS.

Circle the code corresponding to the answer given. If ‘Yes’, continue to the next question. If ‘No’, skip to ED7.

If the interview is carried out during the school year, then the question should be worded to refer to the current school year. If the interview is carried out between school years, then the question should refer to the last school year that has ended.

Take the example of a country where the school year ends in June and the new school year begins in September: If the interview is carried out in July 2005 (between school years), then the question should refer to the 2004-2005 school year; if the interview is carried out in October 2005 (during the new school year), then the question should refer to the 2005-2006 school year.

**ED5. SINCE LAST (*day of the week*), HOW MANY DAYS DID (*name*) ATTEND SCHOOL?**

When asking this question, insert the name of the day of the interview. For example, if the interview is taking place on a Tuesday, ask: **“SINCE LAST TUESDAY, HOW MANY DAYS DID (*name*) ATTEND SCHOOL?”**

**SURVEY COORDINATORS:** IF ALL OF THE INTERVIEWS WILL BE CONDUCTED DURING THE TIME BETWEEN SCHOOL YEARS (FOR EXAMPLE, THE SUMMER BREAK), THIS QUESTION MAY BE DELETED.

**SURVEY COORDINATORS:** CUSTOMIZE THE CODING SYSTEM FOR THIS QUESTION AND MAKE SURE TO REFLECT THIS IN YOUR DATA ENTRY PROGRAM. FOR INSTANCE, IF THE INTERVIEW IS DONE DURING THE FIRST WEEK OF THE SCHOOL YEAR, OR JUST AFTER A WEEK OF HOLIDAY, YOU MAY INSTRUCT THE INTERVIEWERS TO ENTER ‘9’ HERE, INDICATING THAT DURING THE LAST WEEK STUDENTS WERE NOT EXPECTED TO ATTEND SCHOOL FOR ONE OR MORE DAYS. BY DOING SO, YOU WILL BE ABLE TO DIFFERENTIATE BETWEEN CHILDREN WHO DID NOT ATTEND SCHOOL FOR ONE OR MORE SCHOOL DAYS, AND CHILDREN WHO COULD NOT HAVE GONE TO SCHOOL DURING THE PAST WEEK, BECAUSE SCHOOL WAS CLOSED.

Note that the maximum number to be entered here should be ‘7’ and not ‘8’.

**ED6. DURING THIS/THAT SCHOOL YEAR, WHICH LEVEL AND GRADE IS/WAS (*name*) ATTENDING?**

Circle the code for the level of school, and enter the household member’s current grade. If it applies, circle ‘8’ for ‘DK’ (‘Doesn’t know’). Probe to determine the type of school, particularly to make sure if it is a standard or non-standard curriculum. Then enter the highest grade number completed using ‘01’, ‘02’, etc. If a child is in pre-school or kindergarten, and grades are not used, omit the grade. If less than one grade was completed, enter ‘00’. Enter ‘98’ for ‘DK’.

If the interview is conducted during the time between two school years, the question should refer to the school year that has ended, and you should use ‘THAT’ and ‘WAS’ in the question. If the interview is conducted during the school year, the question should refer to the current school year. Note that these questions should capture children who may have been attending at the beginning of the school year, but have dropped out since then. If necessary, past tense could be used to make sure that you obtain information on the level and grade of children who may have dropped out from school during the course of the school year.

Questions ED4, ED5 and ED6 collect information on the school attendance of household members during the current school year (if the interview is conducted when schools are open) or the last school year that has ended (if the interview is conducted between school years). Questions ED7 and ED8 collect information on the school attendance of household members during the previous school year.

**SURVEY COORDINATORS:** IF THE INTERVIEW IS CARRIED OUT DURING THE SCHOOL YEAR 2005-2006, THEN ED4-ED6 SHOULD REFER TO THE 2005-2006 SCHOOL YEAR, AND ED7-ED8 SHOULD REFER TO THE SCHOOL YEAR 2004-2005. IF THE INTERVIEW IS CARRIED OUT DURING THE SUMMER BREAK BETWEEN THE 2005-2006 AND 2006-2007 SCHOOL YEARS, THEN QUESTIONS ED4-ED6 SHOULD REFER TO THE 2005-2006 SCHOOL YEAR AND QUESTIONS ED7-ED8 SHOULD REFER TO THE 2004-2005 SCHOOL YEAR.

**ED7. DID (*name*) ATTEND SCHOOL OR PRESCHOOL AT ANY TIME DURING THE PREVIOUS SCHOOL YEAR, THAT IS (2003-2004)?**

If the child attended school at any time during the last school year, circle ‘1’. If the answer is ‘No’ or ‘DK’, circle the appropriate code and go to the household member on the next line.

**ED8. DURING THAT PREVIOUS SCHOOL YEAR, WHICH LEVEL AND GRADE DID (*name*) ATTEND?**

Circle the code for the level of school attended and fill in the child’s grade or enter ‘8’ if the respondent doesn’t know the level and/or ‘98’ if the respondent doesn’t know the grade. If the child was in pre-school or kindergarten, and grades are not used, omit the grade.

## WATER AND SANITATION MODULE

The purpose of the first two questions of this module is to assess the type of household water used for drinking as well as for other purposes, such as cooking and washing hands.

**SURVEY COORDINATORS:** DURING TRAINING, PROVIDE INTERVIEWERS WITH PICTORIALS DEPICTING VARIOUS WATER SOURCES AND SANITATION FACILITIES. THESE PICTORIALS WERE AVAILABLE FROM <http://www-staff.lboro.ac.uk/~cvrjs2/JMP-Final-Report.htm> AT THE TIME THIS MANUAL WAS WRITTEN. CONTACT THE GLOBAL MICS3 COORDINATOR IF YOU ARE NOT ABLE TO OBTAIN THESE PICTORIALS FROM THE INTERNET. THESE PICTORIALS SHOULD NOT BE SHOWN TO THE RESPONDENTS, HOWEVER.

Definitions of the various sources of water are as follows (codes refer to those used in WS1 and WS2):

- ‘11’ – Piped into dwelling, also called a house connection, is defined as water service connected by pipe with in-house plumbing to one or more taps, for example, in the kitchen and/or bathroom.
- ‘12’ – Piped water to yard/plot, also called a yard connection, is defined as a piped water connection to a tap placed in the yard or plot outside the house.
- ‘13’ – A public tap or standpipe is a water point from which the public may collect their water. A standpipe may also be known as a public fountain or public tap. Public standpipes can have one or more taps and are typically made of brickwork, masonry or concrete.
- ‘21’ – A tube-well or borehole is a deep hole that has been driven, bored or drilled with the purpose of reaching groundwater supplies. Boreholes/tube-wells are constructed with casing, or pipes, which prevent the small-diameter hole from caving in and provide protection from infiltration of run-off water. Water is delivered from a tube-well or borehole through a pump that may be powered by humans, animals, wind, electricity, diesel fuel or solar energy.
- ‘31’ – A protected dug well is a dug well that is protected from run-off water through a well lining or casing that is raised above ground level and a platform that diverts spilled water away from the well. Additionally, a protected dug well is covered so that bird droppings and animals cannot fall down the hole.
- ‘32’ – An unprotected dug well is a dug well for which one or both of the following are true: (1) the well is not protected from run-off water; (2) the well is not protected from bird droppings and animals. If at least one of these conditions is true, the well is unprotected.
- ‘41’ – A protected spring is a spring that is free from run-off and from bird droppings and animals. A spring is typically protected by a ‘spring box’ that is constructed of brick, masonry or concrete and is built around the spring so that water flows directly out of the box into a pipe without being exposed to outside pollution.
- ‘42’ – An unprotected spring is a spring that is subject to run-off or bird droppings or animals. Unprotected springs typically do not have a ‘spring box’ (described above).
- ‘51’ – Rainwater collection refers to rain that is collected or harvested from surfaces by roof or ground catchment and stored in a container, tank or cistern until used.
- ‘61’ – A tanker-truck water source transports and sells water by means of a tanker truck.
- ‘71’ – Cart with small tank/drum is used by a water provider who transports water into a community and then sells the water. Types of transports may include donkey cart, motorized vehicle or other means.
- ‘81’ – Surface water is water located above ground and includes rivers, dams, lakes, ponds, streams, canals and irrigation channels from which water is taken directly.



- ‘91’ – Bottled water is purchased water sold in bottles. Note that the code refers only to bottled water that is commercially available. Sometimes household members may store water from other sources in bottles – this should not be coded as bottled water.

**SURVEY COORDINATORS:** THE PRE-TEST WILL DETERMINE IF ANY ADDITIONAL WATER SOURCES TYPICALLY USED IN YOUR LOCALITY NEED TO BE ADDED TO THIS LIST. BE SURE TO RETAIN THE CATEGORIES SHOWN IN THE QUESTIONNAIRE. THESE WILL DETERMINE THE NUMBER OF HOUSEHOLDS TO COUNT IN THE NUMERATOR OF THE WATER AND SANITATION INDICATORS (SEE APPENDIX ONE).

**WS1. WHAT IS THE MAIN SOURCE OF DRINKING WATER FOR MEMBERS OF YOUR HOUSEHOLD?**

Circle the code for the most usual source. If several sources are mentioned, probe to determine the most usual source. If the source varies by season, record the source for the season of the interview. Note that the next question is only asked if the response to this question is ‘Bottled water’. You should skip WS2 if the response to WS1 is other than ‘Bottled water’. If the response is ‘Piped into dwelling’ or ‘Piped into yard/plot’, circle ‘11’ or ‘12’, respectively, and skip to WS5. Otherwise, skip to WS3.

**WS2. WHAT IS THE MAIN SOURCE OF WATER USED BY YOUR HOUSEHOLD FOR OTHER PURPOSES SUCH AS COOKING AND HAND WASHING?**

This question should only be asked to households that use ‘Bottled water’ for drinking. Circle the code for the most usual source. If the source varies by season, record the source for the season of the interview. If the most usual source of non-drinking water is ‘Piped into dwelling’ or ‘Piped into yard/plot’, circle ‘11’ or ‘12’, respectively, and skip to WS5. Otherwise continue to the next question.

**WS3. HOW LONG DOES IT TAKE TO GO THERE, GET WATER, AND COME BACK?**

This question is used to find out how convenient the source of water is to the dwelling. Note that the question is asked for water sources coded as ‘13-81’ and ‘96’ in WS1, or water sources coded as ‘13-96’ in WS2.

Fill in the estimated time (in minutes, converting from hours, if necessary) it takes by the usual mode of transport to get to the water source, wait to get water, and get back to the dwelling. Use zero(s) preceding the number if less than 100 minutes (for example, ‘060’ or ‘005’). Then continue to the next question.

If the water source is on the dwelling premises or if water is delivered to the dwelling by a vendor, circle ‘995’ for ‘Water on premises’ and skip to WS5. If the respondent does not know how long it takes, circle ‘998’ and continue on to the next question.

**WS4. WHO USUALLY GOES TO THIS SOURCE TO FETCH THE WATER FOR YOUR HOUSEHOLD?**

The purpose of this question is to find out the age and gender of the person who usually performs the task of hauling water. This will provide an understanding of whether water hauling responsibilities are given to members of a particular sex or age group.

Probe: “**IS THIS PERSON UNDER AGE 15? WHAT SEX IS THIS PERSON?**” Circle the code that corresponds with the response or ‘8’ if the respondent does not know. Adult refers to anyone age 15 or over, regardless of whether he/she is a household member. Child refers to anyone under the age of 15, regardless of whether he/she is a household member.

The purpose of the following two questions, WS5 and WS6, is to determine whether the household drinking water is treated within the household and, if so, what type of treatment is used. This question is intended to gather information on water treatment at the household level and not water treatment at the municipal or vendor level.

**WS5. DO YOU TREAT YOUR WATER IN ANY WAY TO MAKE IT SAFER TO DRINK?**

Circle '1' if 'Yes', and continue to the next question. If 'No' or 'DK' (Doesn't know'), circle '2' or '8', respectively, and skip to WS7.

**WS6. WHAT DO YOU USUALLY DO TO THE WATER TO MAKE IT SAFER TO DRINK?**

Circle the code corresponding to the response. The household may be using a method that you know does not make water safer to drink. Do not use your own judgement, just record the response. Record all items mentioned (for example, the household may be filtering the water and adding chlorine at the same time). Probe: "Anything else?" Circle 'X' for 'Other' and specify on the line provided what the household does to the water to make it safer to drink. Circle 'Z' if the respondent 'Doesn't know'.

Definitions of various methods of water treatment are as follows:

- 'A' – Boil refers to boiling or heating water with fuel.
- 'B' – Add bleach/chlorine refers to using liquid chlorine bleach or bleaching powder to treat drinking water.

**SURVEY COORDINATORS:** FREE CHLORINE MAY BE USED IN THE FORM OF LIQUID SODIUM HYPOCHLORITE, SOLID CALCIUM HYPOCHLORITE AND BLEACHING POWDER (CHLORIDE OF LIME)

- 'C' – Strain it through a cloth refers to pouring water through a cloth that acts as a filter for collecting particles from the water.
- 'D' – Use water filter involves water flowing through a filter made of ceramic, sand or a combination of materials to remove particles and at least some microbes from the water.

**SURVEY COORDINATORS:** CERAMIC MAY INCLUDE CLAYS, DIATOMACEOUS EARTH, GLASS AND OTHER FINE PARTICLES.

- 'E' – Solar disinfection consists of exposing water, stored in buckets, containers or clear vessels, to sunlight.
- 'F' – Let it stand and settle refers to storing water undisturbed and without mixing long enough for larger particles to settle to the bottom by gravity. The settled water is carefully removed by decanting, ladling or other gentle methods that do not disturb the settled particles.

Questions WS7, WS8 and WS9 are about the toilet facility household members use.

**WS7. WHAT KIND OF TOILET FACILITY DO MEMBERS OF YOUR HOUSEHOLD USUALLY USE?**

The purpose of this question is to obtain a measure of the cleanliness of the sanitary facility used by the household members.

It may be necessary to observe the facility. If so, ask permission to do so. If the respondent answers or it is observed that the household members have no facilities or use the bush or field, enter '95' for

'No facilities or bush or field' and skip to the next module. If any of the flush or pour flush responses (11-15) are given, probe: **"WHERE DOES IT FLUSH TO?"** Circle the code corresponding to the response given.

Definitions of various types of toilet facilities are as follows:

- A flush toilet uses a cistern or holding tank for flushing water and has a water seal, which is a U-shaped pipe, below the seat or squatting pan that prevents the passage of flies and odours. A pour flush toilet uses a water seal, but unlike a flush toilet, a pour flush toilet uses water poured by hand for flushing (no cistern is used).
  - '11' - A piped sewer system is a system of sewer pipes, also called sewerage, that is designed to collect human excreta (faeces and urine) and wastewater and remove them from the household environment. Sewerage systems consist of facilities for collection, pumping, treating and disposing of human excreta and wastewater.
  - '12' - A septic tank is an excreta collection device and is a water-tight settling tank normally located underground, away from the house or toilet.
  - '13' - A flush/pour flush to pit latrine refers to a system that flushes excreta to a hole in the ground.
  - '14' - A flush/pour flush to somewhere else refers to excreta being deposited in or nearby the household environment (not into pit, septic tank or sewer); excreta may be flushed to the street, yard/plot, drainage way or other location.
  - '15' - Flush to unknown place/not sure/DK where should be coded in cases when the respondent knows that the toilet facility is a flush toilet, but does not know where it flushes to.
- '21' - A ventilated improved pit latrine or VIP is a type of pit latrine that is ventilated by a pipe extending above the latrine roof. The open end of the vent pipe is covered with gauze mesh or fly-proof netting and the inside of the superstructure is kept dark.
- '22' - A pit latrine with slab uses a hole in the ground for excreta collection and has a squatting slab, platform or seat that is firmly supported on all sides, easy to clean and raised above the surrounding ground level to prevent surface water from entering the pit.
- '23' - A pit latrine without slab uses a hole in the ground for excreta collection and does not have a squatting slab, platform or seat. An open pit is a rudimentary hole in the ground where excreta is collected.
- '31' - A composting toilet is a toilet into which excreta and carbon-rich material are added (vegetable wastes, straw, grass, sawdust, ash) and special conditions maintained to produce inoffensive compost.
- '41' - Bucket refers to the use of a bucket or other container for the retention of faeces (and sometimes urine and anal cleaning material), which is periodically removed for treatment or disposal.
- '51' - A hanging toilet or hanging latrine is a toilet built over the sea, a river, or other body of water into which excreta drops directly.
- '95' - No facilities or bush or field includes excreta wrapped and thrown with garbage, the 'cat' method of burying excreta in dirt, defecation in the bush or field or ditch, and defecation into surface water (drainage channel, beach, river, stream or sea).

**SURVEY COORDINATORS:** ADAPT THESE INSTRUCTIONS, ADDING EXPLANATIONS OF ANY ADDITIONAL CATEGORIES. BE SURE TO RETAIN THE CATEGORIES SHOWN ON THE QUESTIONNAIRE. THESE WILL DETERMINE THE NUMBER OF HOUSEHOLDS TO COUNT IN THE NUMERATOR OF THE WATER AND SANITATION INDICATORS. ANY OTHER USUAL TYPES OF FACILITIES THAT DO NOT FIT INTO THESE CATEGORIES SHOULD ALSO BE LISTED HERE.

The purpose of the following two questions is to determine whether the household shares their sanitation facility with other households. The shared status of a sanitation facility is important because shared facilities can be less hygienic than facilities used by only a single household. Unhygienic conditions (faeces on the floor, seat or wall and flies) may discourage use of the facility.

**WS8. DO YOU SHARE THIS FACILITY WITH OTHER HOUSEHOLDS?**

Circle the code corresponding to the response given. If 'No', go to the next module.

**WS9. HOW MANY HOUSEHOLDS IN TOTAL USE THIS TOILET FACILITY?**

The total number of households using this facility should include the household being interviewed. If less than ten households use this toilet facility, enter the number of households on the line provided. Circle '10' if ten or more households use this toilet facility. Note that '01' is not a valid response (since it means that this is the only this household that uses the facility; if that is the case, you should go back to WS8 and correct the response there). Circle '98' for 'DK' ('Doesn't know').

**HOUSEHOLD CHARACTERISTICS MODULE**

**HC1A. WHAT IS THE RELIGION OF THE HEAD OF THIS HOUSEHOLD?**

**HC1B. WHAT IS THE MOTHER TONGUE/NATIVE LANGUAGE OF THE HEAD OF THIS HOUSEHOLD?**

**HC1C. TO WHAT ETHNIC GROUP DOES THE HEAD OF THIS HOUSEHOLD BELONG?**

Circle the code corresponding to the answer given. Make sure to get the religion, ethnicity or mother tongue/native language of the household head.

**SURVEY COORDINATORS:** QUESTIONS ON RELIGION, LANGUAGE AND ETHNICITY SHOULD BE ADAPTED TO THE COUNTRY-SPECIFIC SETTING. THESE QUESTIONS ARE INTENDED TO IDENTIFY THE SOCIOCULTURAL BACKGROUND OF THE HOUSEHOLDS. SOME SOCIOCULTURAL GROUPS TEND TO BE MORE VULNERABLE OR DISADVANTAGED THAN OTHERS. DEPENDING ON THE CRITERIA USED IN YOUR COUNTRY TO DIFFERENTIATE BETWEEN THESE GROUPS, YOU MAY WANT TO DELETE ONE OR TWO OF THESE QUESTIONS IF ONLY ONE OF THEM IS SUFFICIENT, OR ADD A SIMILAR QUESTION WHICH USES A CRITERION OTHER THAN RELIGION, ETHNIC GROUP OR MOTHER TONGUE. FOR INSTANCE, IN SOME COUNTRIES, ASKING ABOUT THE RELIGIOUS SECT MAY BE NECESSARY TO DIFFERENTIATE BETWEEN VARIOUS GROUPS.

**HC2. HOW MANY ROOMS IN THIS HOUSEHOLD ARE USED FOR SLEEPING?**

This information provides a measure of how crowded the house is, and reflects the socio-economic condition of the household. A room in this case refers to a special area with a permanent partition that is used for sleeping. It is not necessarily the number of rooms in the household that are called 'bedrooms', but rather how many rooms get used for sleeping on a regular basis. Exclude rooms that are used only for sleeping by visitors to the household, but include those rooms that may not be regular 'bedrooms' but may be regularly used by one or more of the household members for sleeping.

Enter the number of rooms in this household that are used for sleeping.

**HC3. Main material of dwelling floor**

**SURVEY COORDINATORS:** ADAPT THE RESPONSE CATEGORIES TO INCLUDE LOCALLY RELEVANT FLOOR MATERIALS.

Circle the correct code for the material of the dwelling floor based on your observation. You will be able to observe the correct answer in most cases, but if in doubt, ask. If there is more than one kind of material making up the floor, record the main flooring material (the material that covers the largest amount of floor space).

**HC4. Main material of the roof:**

**SURVEY COORDINATORS:** ADAPT THE RESPONSE CATEGORIES TO INCLUDE LOCALLY RELEVANT ROOF MATERIALS.

Circle the correct code for the material of the dwelling roof, based on your observation. You will be able to observe the correct answer in most cases, but if in doubt, ask. If there is more than one kind of material making up the roof, record the main roofing material (the material that covers the largest amount of roof).

**HC5. Main material of the walls:**

**SURVEY COORDINATORS:** ADAPT THE RESPONSE CATEGORIES TO INCLUDE LOCALLY RELEVANT WALL MATERIALS.

Circle the correct code for the material of the dwelling walls, based on your observation. You will be able to observe the correct answer in most cases, but if in doubt, ask. If there is more than one kind of material making up the walls, record the main wall material (the material that covers the largest amount of wall space).

**HC6. WHAT TYPE OF FUEL DOES YOUR HOUSEHOLD MAINLY USE FOR COOKING?**

Information on the type of fuel used for cooking is collected as another measure of the socio-economic status of the household. The use of some cooking fuels can also have adverse health consequences.

Circle the code corresponding to the answer given. Remember that this question asks about fuel for cooking, not fuel for heating or lighting. If the household uses more than one fuel for cooking, find out which type of fuel is used most often. If electricity, liquid propane gas (LPG), natural gas, or biogas is mainly used, circle '01', '02', '03', or '04', respectively, and skip to HC8. If any fuel other than the pre-coded ones is reported as being the main fuel used for cooking, circle '96' and specify the type of fuel on the line provided.

Definitions of some of the types of fuel are as follows: 'Biogas' includes gases produced by fermenting manure in an enclosed pit. 'Lignite' is a derivative of coal that produces more smoke when burned but produces less heat than coal.

**HC7. IN THIS HOUSEHOLD, IS FOOD COOKED ON AN OPEN FIRE, AN OPEN STOVE, OR A CLOSED STOVE?**

Probe for type of stove and circle the code corresponding to the response given. If a response is given other than the pre-coded ones, circle '96' and specify the type of stove on the line provided. For 'Closed stove', skip the next question and ask HC8.

**SURVEY COORDINATORS:** PLEASE FIND PICTORIALS ON OPEN FIRES, STOVES, CHIMNEYS AND HOODS POSTED AT THE WEBSITE [www.childinfo.org](http://www.childinfo.org). USE THESE PICTORIALS DURING THE INTERVIEWERS' TRAINING.

**HC7A. DOES THE FIRE/STOVE HAVE A CHIMNEY OR A HOOD?**

Circle the appropriate response.

**HC8. IS THE COOKING USUALLY DONE IN THE HOUSE, IN A SEPARATE BUILDING, OR OUTDOORS?**

Circle the code corresponding to the response given. If a response is given other than the pre-coded ones, circle '6' and specify on the line provided.

The answers to the following two questions on ownership of certain items will be used as an approximate measure of the socio-economic status of the household.

**HC9. DOES YOUR HOUSEHOLD HAVE:**

Read out each item and circle the code corresponding to the answer given after each item. If the respondent reports that a household item such as a radio is broken, try to find out how long it has been broken and whether it will be fixed. If the item appears to be out of use only temporarily, circle '1' for 'Yes'. Otherwise, circle '2' for 'No'. Be sure to circle either a '1' or a '2' for each item. Do not leave any blank.

Ask the question for the following items: **ELECTRICITY, RADIO, TELEVISION, MOBILE TELEPHONE, NON-MOBILE TELEPHONE, REFRIGERATOR?**

**HC10. DOES ANY MEMBER OF YOUR HOUSEHOLD OWN:**

This question collects information on the ownership of various items owned by any of the household members. Read out each item and circle the code corresponding to the answer given after each item. If the respondent reports that an item such as a motorcycle is broken, try to find out how long it has been broken and whether it will be fixed. If the item appears to be out of use only temporarily, circle '1' for 'Yes'. Otherwise, circle '2' for 'No'. Be sure to circle either a '1' or a '2' for each item. Do not leave any blank.

Ask the question for the following items: **WATCH, BICYCLE, MOTORCYCLE OR SCOOTER, ANIMAL-DRAWN CART, CAR OR TRUCK, BOAT WITH A MOTOR.**

**CHILD LABOUR MODULE**

This module is to be administered to the mother or primary caretaker of each child resident in the household aged 5 through 14 years (this includes those age 5 and age 14). For household members younger than five or older than 14, rows should be left blank.

**SURVEY COORDINATORS:** YOU MAY DECIDE TO EXTEND THE AGE RANGE, IF DESIRED FOR NATIONAL PURPOSES. ALL MULTIPLE INDICATOR CLUSTER SURVEYS SHOULD INCLUDE CHILDREN AGED 5 THROUGH 14 YEARS, HOWEVER.

**CL1. Line no:**

This is the number assigned to each person on the Household Listing Form. You do not need to fill in or do anything in this column since the numbers are already provided.

Explain, “**NOW I WOULD LIKE TO ASK ABOUT ANY WORK CHILDREN IN THIS HOUSEHOLD MAY DO.**”

**CL2. Name:**

Insert the child’s name, copying from the Household Listing, column HL2. This is done to prevent confusion during the interview.

**CL3. DURING THE PAST WEEK, DID (*name*) DO ANY KIND OF WORK FOR SOMEONE WHO IS NOT A MEMBER OF THIS HOUSEHOLD? *If yes: FOR PAY IN CASH OR KIND?***

‘Pay’ refers to any compensation for work, including cash or goods or services provided to the child or his family. ‘The past week’ refers to the 7 days preceding the interview day. Note that the person indicated – someone who is not a member of this household – may be a relative or a family member who lives in a different household.

If the answer is ‘Yes’, ask if the work was done for pay in cash or kind. Circle ‘1’ if work was done for pay in cash or kind. Circle ‘2’ if work was not done for any form of pay. If ‘1’ or ‘2’ is circled, continue to the next question. If no work was done by that child in the past week, circle ‘3’ and skip to CL5.

**CL4. *If yes: SINCE LAST (day of the week), ABOUT HOW MANY HOURS DID HE/SHE DO THIS WORK FOR SOMEONE WHO IS NOT A MEMBER OF THIS HOUSEHOLD?***

Record the estimated number of hours the child spent doing work in the past 7 days and skip to CL6. Make sure the mother or primary caretaker understands what you mean by “*SINCE LAST (day of the week)*” – specify the name of today’s weekday, as you did in the Education Module. If the child works more than one such job, include the total hours spent doing such work in all jobs.

**CL5. AT ANY TIME DURING THE PAST YEAR, DID (*name*) DO ANY KIND OF WORK FOR SOMEONE WHO IS NOT A MEMBER OF THIS HOUSEHOLD? *If yes: FOR PAY IN CASH OR KIND?***

CL5 is essentially the same question as CL3; this time the reference period is 1 year rather than the last 1 week. Continue with the next question after you have circled the response to this question.

**CL6. DURING THE PAST WEEK, DID (*name*) HELP WITH HOUSEHOLD CHORES SUCH AS SHOPPING, COLLECTING FIREWOOD, CLEANING, FETCHING WATER, OR CARING FOR CHILDREN?**

As was explained in CL3, ‘the past week’ refers to the 7 days preceding the interview day.

Circle ‘1’ if ‘Yes’, and continue to the next question. If ‘No’, circle ‘2’ and skip to CL8.

**CL7. *If yes:* SINCE LAST (*day of the week*), ABOUT HOW MANY HOURS DID HE/SHE SPEND DOING THESE CHORES?**

Insert the estimated number of hours the child spent doing household chores in the past 7 days. Make sure the mother/primary caretaker understands what you mean by ‘since last (day of the week)’ – specify the name of today’s weekday, just as you did for CL4.

**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)?**

As was explained in CL6, ‘the past week’ refers to the 7 days preceding the interview day. ‘Other family work’ means any work done other than household chores/housekeeping to help with family income generation or subsistence production. This may include raising livestock belonging to the household or working in a family business.

Circle ‘1’ if ‘Yes’, and continue to the next question. If ‘No’, circle ‘2’ and go to the next line, corresponding to the next eligible child aged 5-14 years.

**CL9. *If yes:* SINCE LAST (*day of the week*), ABOUT HOW MANY HOURS DID HE/SHE DO THIS WORK?**

Insert the estimated number of hours worked. Again, make sure the mother/primary caretaker understands what you mean by ‘since last (day of the week)’ – specify the name of today’s weekday, just as you did for CL4 and CL7.



## SALT IODIZATION MODULE

After you have completed all modules of the Household Questionnaire, administer the module on Salt Iodization. Note that in this module, you will most probably perform a test on a sample of salt provided by the respondent.

### **SI1. WE WOULD LIKE TO CHECK WHETHER THE SALT USED IN YOUR HOUSEHOLD IS IODIZED. MAY I SEE A SAMPLE OF THE SALT USED TO COOK THE MAIN MEAL EATEN BY MEMBERS OF YOUR HOUSEHOLD LAST NIGHT?**

This item is used to record the type of salt used to prepare the family's main meal the day before the questionnaire is administered, and the outcome of the test for salt iodization.

Once you have a sample of salt, perform the test and circle the code that corresponds to the test outcome. Circle '1' if the test is negative (0 parts per million/no colour - not iodized). Circle '2' if the test shows less than 15 parts per million iodine (weak colour). Circle '3' if the test is positive (15 parts per million or more, strong colour). Circle '6' if there is 'No salt in home'. Circle '7' if the salt was present, but not tested for any reason.

**SURVEY COORDINATORS:** RESPONSE CATEGORIES USED HERE SHOULD BE BASED ON THE SALT TEST KIT USED. YOU MAY BE USING SALT TEST KITS FOR TESTING FOR THE PRESENCE OF POTASSIUM IODINE OR POTASSIUM IODATE, OR YOUR SALT TEST KIT MAY BE PRODUCING OUTCOME CATEGORIES OTHER THAN THE THREE OUTCOMES LISTED HERE. REFER TO APPENDIX FIVE TO CUSTOMIZE THE INSTRUCTIONS FOR THIS QUESTION.

If the respondent indicates that no salt was used to cook the main meal last night, or that no meal was cooked, ask for a sample of the salt usually used for cooking in the household, and perform the test on this sample of salt.

The Household Questionnaire ends with two questions that will confirm the presence (or absence) of other individuals you may need to interview in this household. If there is at least one woman in the household eligible for the Questionnaire for Individual Women, you will proceed to interview that woman. If not, you will check if there are any eligible children, and interview their mother/primary caretaker if there is at least one such child residing in the household.

### **SI2. Does any eligible woman age 15-49 reside in the household?**

Check Household Listing, column HL6. You should have a questionnaire with the Information Panel filled in for each eligible woman. If there are women aged 15-49 in the household, check the box marked 'Yes' and go to the Questionnaire for Individual Women to administer it to the first woman aged 15-49. If there are no women aged 15-49 in the household, check the box marked 'No' and continue to SI3.

### **SI3. Does any child under the age of 5 reside in the household?**

Check Household Listing, column HL8. You should have a questionnaire with the Information Panel filled in for each eligible child. If there are children under age five in the household, check the box marked 'Yes' and go to the Questionnaire for Children Under Five to administer it for the first child under five. If there are no children under age five in the household, check the box marked 'No' and end the interview by thanking the respondent for his/her cooperation.

## ADDITIONAL MODULES FOR THE HOUSEHOLD QUESTIONNAIRE

**SURVEY COORDINATORS:** ADDITIONAL MODULES SHOULD BE ADDED TO THE HOUSEHOLD QUESTIONNAIRE IN COUNTRIES WHERE THEY ARE APPLICABLE AND APPROPRIATE. IN SOME CASES, ADDITIONAL MODULES SHOULD REPLACE A CORE MODULE IN THE HOUSEHOLD QUESTIONNAIRE; IN OTHERS, AN ADDITIONAL MODULE MAY SIMPLY BE ADDED TO THE QUESTIONNAIRE, AS INDICATED FOR EACH OF THE MODULES IN THE FOLLOWING PAGES. CHECK CHAPTER 3 AND APPENDIX TWO TO SEE WHERE EACH OF THE ADDITIONAL MODULES SHOULD BE PLACED.

### ITN MODULE

It is recognized that consistent use of insecticide-treated mosquito nets (ITN) decreases the incidence of clinical malaria and malaria-related deaths, especially in very young children. Consequently, many countries are now instituting programmes that promote the use of ITNs. There are various types and brands of mosquito nets. Some require regular treatment with insecticide. Others are factory-treated and do not require re-treatment for 6 to 12 months (pre-treated) or 36 months (permanent type). By observing the mosquito nets yourself, you should be able to identify what brands or types of mosquito nets households own, but respondents may not always permit you to enter the sleeping areas where the nets are found. Your supervisor may provide you with photographs to help you to distinguish different brands of mosquito nets. In order to assess the effectiveness of mosquito net use in preventing malaria, we need to gather accurate information on the type of nets, whether and when they were last treated with insecticide and whether household members use the nets when they sleep at night.

**SURVEY COORDINATORS:** IN MALARIA-AFFECTED COUNTRIES, THIS MODULE SHOULD BE INSERTED IN THE HOUSEHOLD QUESTIONNAIRE, PRIOR TO THE SALT IODIZATION MODULE. CERTAIN ITEMS IN THIS MODULE REQUIRE ADJUSTMENT. PLEASE CONSULT THE NATIONAL MALARIA CONTROL PROGRAMME FOR ASSISTANCE IN IDENTIFYING BRANDS OF MOSQUITO NETS AND OBTAINING PHOTOGRAPHS AND/OR DESCRIPTIONS OF BRAND LOGOS TO SERVE AS AIDS IN THE FIELD.

Note that ‘cake covers’ or baby nets that are used to keep flies off infants, usually during the daytime, are not considered mosquito nets. These nets cannot be treated with insecticide. Window screens are also not considered mosquito nets.

#### **TN1. DOES YOUR HOUSEHOLD HAVE ANY MOSQUITO NETS THAT CAN BE USED WHILE SLEEPING?**

Circle the code corresponding to the response given. If ‘No’, skip to the next module.

#### **TN2. HOW MANY MOSQUITO NETS DOES YOUR HOUSEHOLD HAVE?**

Enter the number of mosquito nets that the household has. If the household has seven or more nets, record ‘7’.

#### **TN3. IS THE NET (ARE ANY OF THE NETS) ANY OF THE FOLLOWING BRANDS:**

**SURVEY COORDINATORS:** INSERT THE BRAND NAMES OF PERMANENTLY TREATED NETS AND PRE-TREATED NETS AVAILABLE IN THE COUNTRY.

During training, you will be shown all the common mosquito nets that are available in the country. The brand name is often located on the net itself. A picture of the different types of nets available in the country may also be provided for reference during interviews. Use this to identify the type of net in the dwelling and circle the corresponding number on the questionnaire.

**SURVEY COORDINATORS:** BASED ON THE NETS AVAILABLE IN YOUR COUNTRY, YOU WILL HAVE IDENTIFIED THE BRAND NAMES AND CUSTOMIZED THIS MODULE ACCORDINGLY. THE EXPLANATIONS BELOW REFER TO THE HYPOTHETICAL CASE (AS IN THE MODULE ITSELF) THAT THERE ARE TWO BRANDS OF LONG-LASTING TREATED NETS (A AND B), TWO BRANDS OF PRE-TREATED NETS (C AND D), TWO BRANDS OF OTHER NETS (E AND F). CHANGE THE EXPLANATIONS BELOW IN ACCORDANCE WITH THE CUSTOMIZATION OF YOUR MODULE.

Read the name of each brand of long-lasting nets in turn: **“IS THE NET (ARE ANY OF THE NETS) BRAND A? IS THE NET (ARE ANY OF THE NETS) BRAND B?”** Read each brand name aloud and if the response is ‘Yes’, circle the corresponding code. Then proceed to ask about the pre-treated nets: **“IS THE NET (ARE ANY OF THE NETS) BRAND C? IS THE NET (ARE ANY OF THE NETS) BRAND D?”** and other nets: **“IS THE NET (ARE ANY OF THE NETS) BRAND E? IS THE NET (ARE ANY OF THE NETS) BRAND F?”**

Note that if the respondent has indicated the number of nets in TN2, you should still have the respondent confirm the presence or absence of each of the brand of nets in TN3. For example, the respondent may have indicated that there is only one net in the household. If the respondent indicates that there is a net in the household of brand A, you should still continue down the list of nets and code ‘No’ for all other nets. It is possible that once you mention the brand names of net, the respondent may remember an extra net not included in the figure in TN2.

If the respondent is not sure whether a net is one of these brands, try to observe the net, if possible. If it is not possible to observe the net(s), use the pictures you were given to aid in identification.

When you finish asking about the brands of nets from A to F, ask the respondent if there is any other brand of net. If ‘Yes’, code TN3o3, and write down the brand of the net. If there is another net for which the respondent does not know the brand, code ‘Yes’ for TN3o4.

#### **TN4. Check TN3 for brands of nets in the household.**

Go through the list in TN3 in order, and stop when you are able to check one of the three boxes in TN4. Follow the instructions below for the first box checked. Only one of the following three boxes should be checked.

If a long-lasting treated net (brand A or brand B) was mentioned, check box 1 and skip to the next module. This means that the household has at least one long-lasting net.

If either of the pre-treated nets (brand C or brand D) was mentioned, check box 2 and skip to TN6. This means that the household does not have a long-lasting net, but has at least one pre-treated net.

If another brand of net (brand E or brand F), any other net, or an unknown brand was mentioned, check box 3 and continue with TN5 to learn more about the net.

**TN5. WHEN YOU GOT THE (MOST RECENT) NET, WAS IT ALREADY TREATED WITH AN INSECTICIDE TO KILL OR REPEL MOSQUITOES?**

This question is only asked about all nets other than the long-lasting and pre-treated nets. With this question, we try to learn whether the net was actually treated with an insecticide when the household obtained it.

Note that the question should refer to the net most recently obtained. If the household has only one net, you do not need to specify (MOST RECENT) when asking the question.

**TN6. HOW MANY MONTHS AGO WAS THE (MOST RECENT) NET OBTAINED?**

This question is only asked about pre-treated (*not* permanently treated) nets – that is, brand C or brand D, and all other nets. If the household owns more than one of these types of nets, we are interested in the net that was acquired most recently.

If it was obtained within the last 2 years (24 months), calculate the number of months from the respondent's answer and record the number of months in the space provided. If the net was obtained within the last month, enter '00' in the space provided.

For example, if the respondent says, "We bought the net a year and a half ago, during the planting season," the first step is to add 12 months for each year mentioned (1 year = 12 months). The season mentioned by the respondent was the 'planting season'. Using this memory cue, ask the respondent to be more precise about which month the net was purchased, that is, "at the beginning, middle or end of planting season?" or which planting season if there is more than one. If the respondent says that he/she bought it "at the beginning of the planting season in April," and it is October at the time of the interview, count the number of months between April and October, not counting the month of purchase (May, June, July, August, September, October = 6 months. Then add the sums, 12 months + 6 months = 18 months, and record '18' in the space provided).

If the net was obtained more than 2 years ago, circle '95'. If the respondent does not know the exact number of months, probe to obtain the best estimate. If the respondent says 'a year ago', probe to try to determine if the net was obtained exactly 12 months ago, or earlier or later. Circle '98' for 'Not sure' only if the respondent cannot even estimate how long ago the net was obtained.

**TN7. SINCE YOU GOT THE NET(S) HAS IT (HAVE ANY OF THESE NETS) EVER BEEN SOAKED OR DIPPED IN A LIQUID TO KILL/REPEL MOSQUITOES?**

Make sure that the respondent understands that you don't mean simply 'washing the net' or spraying it with insecticide from a can or canister. We want to know whether the net was soaked or dipped in an insecticide.

Circle the code corresponding to the answer given. If 'No' or 'DK' ('Doesn't know'), skip to the next module.

**TN8. HOW LONG AGO WAS THE MOST RECENT SOAKING/DIPPING DONE?**

If the last time was within the last 2 years (24 months), record the number of months ago in the space provided. If the last time was less than 1 month ago, record '00'. If the last time was more than 2 years ago, circle '95'. If the respondent does not know the number of months, probe to obtain his/her

best estimate. Circle '98' for 'Not sure' only if the respondent cannot even estimate when the net was last soaked or dipped.

**EXTENDED HOUSEHOLD LISTING  
AND  
CHILDREN ORPHANED AND MADE VULNERABLE BY HIV/AIDS**

**SURVEY COORDINATORS:** THE EXTENDED HOUSEHOLD LISTING IS FOR USE WHEN COUNTRIES FEEL IT IS IMPORTANT TO MEASURE THE SUPPORT GIVEN TO CHILDREN ORPHANED AND MADE VULNERABLE BY HIV/AIDS. THIS MODULE SHOULD BE USED PRIMARILY IN COUNTRIES WHERE AT LEAST 8 PER CENT OF THE CHILDREN ARE ORPHANED (TO ENSURE AN ADEQUATE SAMPLE SIZE) AND WHERE HIV PREVALENCE IS AT LEAST 5 PER CENT (TO ENSURE THAT A SUBSTANTIAL PROPORTION OF ADULT MORTALITY AND MORBIDITY IN THE COUNTRY IS DUE TO AIDS). AN ORPHAN IS DEFINED AS ANY CHILD UNDER THE AGE OF 18 WHO HAS LOST ONE OR BOTH PARENTS. HIV PREVALENCE IS PREVALENCE AMONG ADULTS AGED 15-49.

**SURVEY COORDINATOR:** THE EXTENDED HOUSEHOLD LISTING MODULE SHOULD REPLACE THE HOUSEHOLD LISTING MODULE IN THE MODEL QUESTIONNAIRE. THE MODULE ON CHILDREN ORPHANED AND MADE VULNERABLE BY AIDS SHOULD BE ADDED TO THE HOUSEHOLD QUESTIONNAIRE.

In this survey, we are identifying children and households that may have been affected by HIV/AIDS. We do not actually know why a parent or household member died or is sick; it could be from malaria or diabetes or AIDS. Despite this uncertainty, we collect information on whether children and households that are vulnerable due to adult illness are receiving services. We first identify whether a household contains orphaned or vulnerable children through four criteria:

- Children under age 18 who have lost one or both parents (HL9 and HL11 from Extended Household Listing)
- Children under age 18 whose parent or parents have been ill for 3 of the past 12 months (HL10A and HL12A from Household Listing)
- Children under age 18 who live in a household in which an adult (aged 18-59 years) has died during the past year and who was chronically ill for 3 of the 12 months before he or she died (OV2-OV4 from module on Children Orphaned and Made Vulnerable by HIV/AIDS)
- Children under age 18 who live in a household in which an adult (aged 18-59 years) is chronically ill (or who has been ill for 3 of the past 12 months – HL8A from Extended Household Listing).

**EXTENDED HOUSEHOLD LISTING**

**SURVEY COORDINATORS:** MOST OF THE QUESTIONS IN THE EXTENDED HOUSEHOLD LISTING MODULE ARE THE SAME AS THOSE IN THE HOUSEHOLD LISTING MODULE OF THE MODEL QUESTIONNAIRE (SEE ABOVE). INSTRUCTIONS FOR SUCH QUESTIONS ARE NOT REPEATED HERE. IF THE EXTENDED HOUSEHOLD LISTING MODULE IS USED, COPY THE INSTRUCTIONS FOR THOSE QUESTIONS HERE.

**SURVEY COORDINATORS:** COPY ALL INSTRUCTIONS UP TO HL8 FROM THE HOUSEHOLD LISTING.

**HL8A. For adult household members age 18-59: HAS (name) BEEN VERY SICK FOR AT LEAST 3 MONTHS DURING THE PAST 12 MONTHS?**

By chronically ill we mean that the person was too sick to perform his/her normal activities at work or at home, such as cooking, cleaning, driving or participating in activities. Also, we are asking whether the person was sick for a substantial amount of time, specifically for 3 months or longer during the previous 12 months. The episodes of illness do not need to be consecutive.

***For children age 0-17 years ask HL9-HL12A:***

For all children under 18, we want to know whether either of their own (natural) parents is listed in the Household Listing, and their survival status. This information can be used to measure the prevalence of orphanhood and child fostering in the population. For everyone aged 18 years or older, HL9-12A will be left blank.

**HL9. IS (name's) NATURAL MOTHER ALIVE?**

By 'natural' we mean the biological mother. In many cultures, people consider other people's children whom they are raising as their own, especially children of their husband or sisters, etc. You should be certain that the respondent understands that you are asking about the woman who gave birth to the child.

Record whether or not the child's natural mother is still alive by circling the code corresponding to the response given. If the child's natural mother is not alive, or if the respondent does not know, skip to HL11. Otherwise, continue to the question in the next column.

**HL10. If alive: DOES (name's) NATURAL MOTHER LIVE IN THIS HOUSEHOLD?**

If the natural mother is still alive, we want to know whether she lives in the household. If the mother does live in the household, ask who she is (she should be listed in the Household Listing if she lives in the household) and record her line number in the space provided. If the mother is not a member of the household (not listed in the Household Listing), record '00'.

**HL10A. If mother does not live in the household: HAS (name's) MOTHER BEEN VERY SICK FOR AT LEAST 3 MONTHS DURING THE PAST 12 MONTHS?**

Use the definition of 'very sick' from HL8A. Circle the code corresponding to the answer given. The question should be left blank if the mother lives in the household (See HL10).

**HL11. IS (name's) NATURAL FATHER ALIVE?****HL12. If alive: DOES (name's) NATURAL FATHER LIVE IN THIS HOUSEHOLD?**

Fill in these questions in exactly the same way with HL9 and HL10. This time, make sure to record the survival status and the line number of the natural (biological) fathers. If the father of the household member is not alive or his survival status is now known by the respondent, move to the next person on the list.

**HL12A. If father does not live in household: HAS (name's) FATHER BEEN VERY SICK FOR AT LEAST 3 MONTHS DURING THE PAST 12 MONTHS?**

Use the definition of 'very sick' as in HL8A. Circle the code corresponding to the answer given. This question should be left blank if the father lives in the household (See HL12).

When you have completed the listing of all household members and all questions in the Household Listing, probe to see if there are any other household members you have not included in the list: **“ARE THERE ANY OTHER PERSONS LIVING HERE – EVEN IF THEY ARE NOT MEMBERS OF YOUR FAMILY OR DO NOT HAVE PARENTS LIVING IN THIS HOUSEHOLD? INCLUDING CHILDREN AT WORK OR AT SCHOOL?”** If yes, insert person’s name and complete form

After you have made sure that there are no other household members to be included in the list, complete the row at the bottom of the household list, ‘Totals’. Calculate the number of eligible women in the household and record the number under **‘Women 15-49’**, calculate the number of children aged 5-14 years in the household and record the number under **‘Children 5-14’**, and calculate the number of children under five, and record the number under **‘Under-5s’**. The numbers recorded here for women 15-49 and under-5s will indicate to you the number of individual women’s and under-five questionnaires you should have in the household (see below). You will also record these numbers in HH12 and HH14 in the Household Information Panel.

Calculate the number of adults who have been very sick for 3 months during the past 12 months and record the number under ‘Very sick’ (HL8A). Calculate the number of mothers dead, number of mothers very sick, number of fathers dead and the number of fathers very sick under HL9, HL10A, HL11 and HL12A, respectively.

When you have completed the Household Listing Form for all household members, prepare the individual questionnaire forms for this household:

- For each woman age 15-49 years, write her name and line number in the spaces provided (WM3 and WM4) at the top of her Questionnaire for Individual Women.
- For each child under age five, write his/her name and line number and the name and line number of his/her mother or caretaker in the spaces provided (UF3-6) at the top of the Questionnaire for Children Under Five.

You should now have a separate questionnaire for each eligible woman and child under five in the household, ready for use when you move on later to administer their questionnaires.

### **CHILDREN ORPHANED AND MADE VULNERABLE BY HIV/AIDS**

This module is made up of two sections: The first section identifies households where there is at least one adult aged 18-59 years who was very sick for 3 of the past 12 months and died. This is one of the criteria for identifying if there are eligible children aged 0-17 years for this module, in addition to the criteria in the Extended Household Listing module. The second section asks about different types of support provided to children aged 0-17 years in such households.

Note that the module is administered only if there is at least one child aged 0-17 years residing in the household.

**OV1. Check HL5: any children 0-17?**

Check the column HL5 for the entire household to see if there are any children 0-17 years of age (including age 17). If 'Yes', check the corresponding box, and continue to the next question. If 'No', check the second box and go to the next module.

**OV2. I WOULD LIKE YOU TO THINK BACK OVER THE PAST 12 MONTHS. HAS ANY USUAL MEMBER OF YOUR HOUSEHOLD DIED IN THE LAST 12 MONTHS?**

Care should be taken to determine whether or not the death was within the last 12 months. It can be helpful to probe the respondent by asking if they remember what month the person died, if they are having trouble remembering if the death was more or less than a year ago. Circle the code corresponding to the answer given. If the answer is 'Yes', continue to the next question. If the answer is 'No', skip to OV5.

**OV3. (OF THOSE WHO DIED IN THE PAST 12 MONTHS) WERE ANY OF THESE PEOPLE BETWEEN THE AGES OF 18 AND 59?**

Circle the code corresponding to the answer given. If the answer is 'No', skip to OV5.

**OV4. (OF THOSE WHO DIED IN THE PAST 12 MONTHS AND WERE BETWEEN THE AGES OF 18 AND 59) WERE ANY OF THESE PEOPLE SERIOUSLY ILL FOR 3 OF THE 12 MONTHS BEFORE HE/SHE DIED?**

Circle the code corresponding to the answer given.

A person should be considered 'seriously ill' if he/she was too sick to perform his/her normal activities at work or at home, such as cooking, cleaning, driving or participating in activities. Also, we are asking whether the person was sick for a substantial amount of time, specifically for 3 months or longer of the previous 12 months. The episodes of illness do not need to be consecutive.

If 'Yes', skip to OV8 to ask about support systems to households with children – A 'Yes' answer to this question means that there is at least one adult who died during the past 12 months, who was 18-59 years of age and had been seriously ill for at least 3 months. If 'No', continue with the filter in question OV5.

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

1. Whether the total number of mothers dead is higher than 0 or the total number of fathers dead is higher than 0 (from HL9 and HL11).
2. Whether the number of adults aged 18-59 years in the household who were very sick for at least 3 months during the past 12 months is higher than 0.
3. Whether the number of mothers or fathers who are not living in the household and were very sick for at least 3 months during the past 12 months is higher than 0.

If any of these totals are higher than 0, this means that the household includes orphaned or vulnerable children and questions OV8 – OV 18 should be asked.

**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 household listing module. Use a continuation sheet if there are more than 4 children aged 0-17 years in the household. Ask all questions for one child before moving to the next child.**



All children in the household are considered vulnerable if there is a 'Yes' response to question OV4, or if any of the checks yield a value of more than '0' in OV5. Thus all children will be listed in this module. If there are more than four children in the household, a separate questionnaire should be used for those children. Be sure to ask questions OV10-OV18 for the first child before you start with the second child.

**OV9. I WOULD LIKE TO ASK YOU ABOUT ANY FORMAL ORGANIZED HELP OR SUPPORT THAT YOUR HOUSEHOLD MAY HAVE RECEIVED FOR (NAME) AND FOR WHICH YOU DID NOT HAVE TO PAY. BY FORMAL ORGANIZED SUPPORT I MEAN HELP PROVIDED BY SOMEONE WORKING FOR A PROGRAMME. THIS PROGRAMME COULD BE GOVERNMENT, PRIVATE, RELIGIOUS, CHARITY, OR COMMUNITY-BASED. REMEMBER THIS SHOULD BE SUPPORT FOR WHICH YOU DID NOT PAY.**

OV9 contains a statement that should be read to the respondent before starting on the questions OV10-OV18 for each child. Note that the respondent to this module can be the main respondent to the Household Questionnaire, and not necessarily the mothers or primary caretakers of children listed below OV8.

We are not asking about *all* the help and support that a household may have received for a child; we are asking specifically about formal, organized support that came from an organization. The types of support we want to know about for the purposes of this survey are:

- formal, organized support (government, private, religious, charity, community-based);
- provided free of charge, the household did not have to pay, and
- the help was provided specifically for the child.

As an example of the kind of help to include or not include: a neighbour acting on her own, cooking meals for the family because the mother is too sick to cook meals. While this help is of great importance to the household, if the neighbour is acting from her own good heart, we will not include it here. However, if that neighbour is working for an organization and part of her task at that organization is to provide meals (for free) for people who are too sick to cook for themselves, then we will include that type of help in this section.

**OV10. NOW I WOULD LIKE TO ASK YOU ABOUT SUPPORT YOUR HOUSEHOLD RECEIVED FOR (name). IN THE LAST 12 MONTHS, HAS YOUR HOUSEHOLD RECEIVED ANY MEDICAL SUPPORT FOR (name), SUCH AS MEDICAL CARE, SUPPLIES OR MEDICINE?**

Circle the code corresponding to the answer given.

**OV11. IN THE LAST 12 MONTHS, HAS YOUR HOUSEHOLD RECEIVED ANY EMOTIONAL OR PSYCHOLOGICAL SUPPORT FOR (name), SUCH AS COMPANIONSHIP, COUNSELLING FROM A TRAINED COUNSELLOR OR SPIRITUAL SUPPORT, WHICH YOU RECEIVED AT HOME?**

Circle the code corresponding to the answer given. If the household did not receive support of this kind for the child, skip to OV13.

**OV12. DID YOUR HOUSEHOLD RECEIVE ANY OF THIS SUPPORT IN THE PAST 3 MONTHS?**

The emotional or psychological support would have been provided in the previous 3 months, free of charge for a 'Yes' response to be appropriate. This question is asked for 3 months, in addition to 12 months, because this sort of assistance is needed more regularly than other types of support. Circle the code corresponding to the answer given.

**OV13. IN THE LAST 12 MONTHS, HAS YOUR HOUSEHOLD RECEIVED ANY MATERIAL SUPPORT FOR (name), SUCH AS CLOTHING, FOOD OR FINANCIAL SUPPORT?**

Circle the code corresponding to the answer given. If the household did not receive support of this kind for the child, skip to OV15.

**OV14. DID YOUR HOUSEHOLD RECEIVE ANY OF THIS SUPPORT IN THE PAST 3 MONTHS?**

The material support would have been provided in the previous 3 months, free of charge for a 'Yes' response to be appropriate. This question is asked for 3 months, in addition to 12 months, because this sort of assistance is needed more regularly than other types of support. Circle the code corresponding to the answer given.

**OV15. IN THE LAST 12 MONTHS, HAS YOUR HOUSEHOLD RECEIVED ANY SOCIAL SUPPORT FOR (name), SUCH AS HELP IN HOUSEHOLD WORK, TRAINING FOR A CAREGIVER, OR LEGAL SERVICES?**

Circle the code corresponding to the answer given. If the household did not receive support of this kind for the child, skip to OV17.

**OV16. DID YOUR HOUSEHOLD RECEIVE ANY OF THIS SUPPORT IN THE PAST 3 MONTHS?**

The social support would have been provided in the previous 3 months, free of charge for a 'Yes' response to be appropriate. This question is asked for 3 months, in addition to 12 months, because this sort of assistance is needed more regularly than other types of support. Circle the code corresponding to the answer given.

**OV17. Check OV8 for age of child:**

The remaining question (OV18) is only for children aged 5-17 years. If a child is less than five, check the first box and skip to the next child. If there is no other child in the roster, skip to the next module.

**OV18. IN THE LAST 12 MONTHS, HAS YOUR HOUSEHOLD RECEIVED ANY SUPPORT FOR (name's) SCHOOLING, SUCH AS ALLOWANCE, FREE ADMISSION, BOOKS OR SUPPLIES?**

Ask whether any support was given for the child that was related to school, such as books, supplies or monetary compensation. Circle the code corresponding to the answer given.

## OPTIONAL MODULES FOR THE HOUSEHOLD QUESTIONNAIRE

**SURVEY COORDINATORS:** OPTIONAL MODULES SHOULD BE ADDED TO THE HOUSEHOLD QUESTIONNAIRE IN COUNTRIES WHERE THEY ARE OF PARTICULAR RELEVANCE AND USE TO THE COUNTRY. YOU SHOULD ASCERTAIN THAT THERE IS INTEREST IN THESE MODULES FROM THE GOVERNMENT OR OTHER STAKEHOLDERS, AND THAT THEIR RESULTS WILL BE USED FOR PROGRAMMATIC OR OTHER PURPOSES, BEFORE YOU DECIDE TO USE THESE MODULES IN YOUR SURVEY.

IN SOME CASES, OPTIONAL MODULES REPLACE A CORE MODULE IN THE HOUSEHOLD QUESTIONNAIRE; IN OTHERS, AN OPTIONAL MODULE MAY SIMPLY BE ADDED TO THE QUESTIONNAIRE. OPTIONAL MODULES ARE SOMETIMES COMPOSED OF ONLY A FEW QUESTIONS THAT CAN BE INSERTED INTO ONE OF THE CORE OR ADDITIONAL MODULES. CHECK CHAPTER 3 AND APPENDIX TWO TO SEE WHERE EACH OF THE OPTIONAL MODULES SHOULD BE PLACED.

## ADDITIONAL HOUSEHOLD CHARACTERISTICS

**SURVEY COORDINATORS:** INCLUSION OF ADDITIONAL HOUSEHOLD CHARACTERISTICS ENTAILS THE ADDITION OF QUESTIONS HC11 TO HC14 (SEE BELOW) AT THE END OF THE HOUSEHOLD CHARACTERISTICS MODULE IN THE MODEL QUESTIONNAIRE.

COUNTRIES MAY ALSO WANT TO INCLUDE THE FOLLOWING IN AN EFFORT TO ENHANCE THE POWER OF THE WEALTH INDEX (SEE CHAPTER 3):

- ADD ITEMS OF FURNITURE TO HC9, SUCH AS A TABLE, A CHAIR, A SOFA, A BED, AN ARMOIRE, OR A CUPBOARD OR CABINET.
- TO HC9 AND HC10, ADD AT LEAST FOUR ADDITIONAL HOUSEHOLD APPLIANCES, SO THAT THE LIST INCLUDES AT LEAST THREE ITEMS THAT EVEN A POOR HOUSEHOLD MAY HAVE, AT LEAST THREE ITEMS THAT A MIDDLE-INCOME HOUSEHOLD MAY HAVE, AND AT LEAST THREE ITEMS THAT A HIGH-INCOME HOUSEHOLD MAY HAVE.

SOME OF THE ITEMS THAT CAN BE ADDED IN THIS CONTEXT ARE: CLOCK, WATER PUMP, GRAIN GRINDER, FAN, BLENDER, WATER HEATER, ELECTRIC GENERATOR, WASHING MACHINE, MICROWAVE OVEN, COMPUTER, VCR OR DVD PLAYER, CASSETTE OR CD PLAYER, CAMERA, AIR CONDITIONER OR COOLER, COLOUR TV, SEWING MACHINE.

### HC11. DOES ANY MEMBER OF THIS HOUSEHOLD OWN ANY LAND THAT CAN BE USED FOR AGRICULTURE?

Circle the code corresponding to the response given. If 'No', skip to HC13.

### HC12. HOW MANY HECTARES OF AGRICULTURAL LAND DO MEMBERS OF THIS HOUSEHOLD OWN?

**SURVEY COORDINATORS:** IF A MEASUREMENT UNIT OTHER THAN HECTARES IS COMMONLY USED, ADAPT THE QUESTION TO ALLOW FOR THE RECORDING OF COMMONLY USED UNITS.

Record the total number of hectares of land owned by all members of the household that can be used for agriculture. If 97 or more hectares (or other units) are owned, record '97'. If unknown, record '98'.

**HC13. DOES THIS HOUSEHOLD OWN ANY LIVESTOCK, HERDS, OR FARM ANIMALS?**

Circle the code corresponding to the response given. If 'No', skip to the next module.

**SURVEY COORDINATORS:** IF THE QUESTIONS FROM THE MODULE ON SECURITY OF TENURE AND DURABILITY OF HOUSING ARE USED, CHANGE THE SKIP INSTRUCTION HERE TO HC15A.

**HC14. HOW MANY OF THE FOLLOWING ANIMALS DOES THIS HOUSEHOLD HAVE?**

**SURVEY COORDINATORS:** ADD COUNTRY-SPECIFIC ANIMALS TO THE LIST, AS APPROPRIATE, SUCH AS OXEN, WATER BUFFALO, CAMELS, LLAMAS, ALPACAS, PIGS, DUCKS, GEESE, OR ELEPHANTS.

Read out each item and enter the number corresponding to the answer given. Add numbers of milk cows and bulls together, even if the respondent gives separate numbers for each. Similarly, count horses, donkeys and mules together. If the answer is 'none', record '00' for that animal. If the household has 97 or more of any one type of animal, record '97'. If the household owns a particular type of animal, but the respondent does not know how many, circle '98'. Do not leave any items blank.

Ask the question for the following animals: **CATTLE; MILK COWS OR BULLS; HORSES, DONKEYS OR MULES; GOATS; SHEEP; CHICKENS.**

## SECURITY OF TENURE AND DURABILITY OF HOUSING

**SURVEY COORDINATORS:** COUNTRIES MAY HAVE DIFFERENT WAYS OF CLASSIFYING AND RECORDING OWNERSHIP OF PROPERTY. IT IS IMPORTANT THAT THE BROAD RESPONSE CATEGORIES ARE KEPT, AND THAT OWNERSHIP OR RENTAL DOCUMENTATION IS ADJUSTED TO REFLECT THOSE IN USE IN YOUR COUNTRY. KNOWLEDGEABLE PERSONS, INCLUDING UN HABITAT OR UNDP STAFF, SHOULD BE CONSULTED IF RESPONSE CATEGORIES NEED ADJUSTMENT.

The following questions are used to assess whether the household is protected, or its members perceive themselves to be protected, from eviction from the home.

### HC15A. DO YOU OR SOMEONE IN THIS HOUSEHOLD OWN THIS DWELLING, OR DO YOU RENT THIS DWELLING?

Read the entire question to the respondent before accepting an answer. Record the response given. Note that the question pertains to the situation at the time of interview.

If the respondent or anyone else living in the household owns the dwelling, circle '1' and continue with the next question. If the dwelling is rented, circle '2'. If the household lives in the dwelling without paying rent, if the household is squatting, or if there is another arrangement, circle '3'. If the household does not own the dwelling, skip to HC15D.

### HC15B. DO YOU OR SOMEONE IN THIS HOUSEHOLD HAVE A TITLE DEED FOR THIS DWELLING?

**SURVEY COORDINATORS:** IF NECESSARY, REPLACE 'TITLE DEED' WITH NAME OF DOCUMENT USED IN YOUR COUNTRY AS PROOF OF OWNERSHIP.

This question is asked to respondents who state that the dwelling is owned by a household member. If the owner has title deeds for the dwelling, circle '1' and skip to HC15F. If not, continue with HC15C.

### HC15C. WHAT KIND OF DOCUMENT DO YOU HAVE FOR THE OWNERSHIP OF THIS DWELLING?

This question is asked of respondents who state that the dwelling is owned by a household member ('1' in HC15A), but there is no title deed for the dwelling ('2' in HC15B).

Ask the question as it is written and record all responses given. Do not ask to see the document.

**SURVEY COORDINATOR:** ADD OTHER TYPES OF DOCUMENTS USED IN YOUR COUNTRY AS PROOF OF OWNERSHIP.

A verbal agreement (no document) is the same as 'None'. If only a verbal agreement is mentioned, treat this as 'No document' and record the response as 'Y'.

In cases when the respondent states that the dwelling is owned by a family member not living in the same household, this also means that the household does not own the dwelling.

Continue to ask, "ANYTHING ELSE?" prompting as necessary until no further responses are forthcoming.

If a document type is mentioned but not listed on the questionnaire, circle 'X' for other and fill in the response in the space provided. Note that any responses to this question mean that you should skip to HC15F.

**HC15D. DO YOU HAVE A WRITTEN RENTAL CONTRACT FOR THIS DWELLING?**

This question is asked of all households that do not own the dwelling. Circle the response as 'Yes' ('1') or 'No' ('2'). Do not ask to see the document, if there is one. Make sure to emphasize that the question refers to a 'written' rental contract. If 'Yes', skip to HC15F.

**HC15E. DO YOU HAVE ANY DOCUMENTATION OR AGREEMENT FOR THE RENTAL OF THIS DWELLING?**

This is a probe question for households where there is no written rental contract for the dwelling ('2' in HC15D).

If 'Yes', ask **"WHAT KIND OF DOCUMENT OR AGREEMENT DO YOU HAVE FOR THE RENTAL OF THIS DWELLING?"** Continue to ask, **"ANYTHING ELSE?"** prompting as necessary until no further responses are forthcoming.

Note that both written and verbal agreements should be recorded in this question. In other words, the presence of a document or an agreement is recorded based on the perception of the respondent. Do not use your judgement in terms of the validity of the document or agreement mentioned.

**HC15F. DO YOU FEEL SECURE FROM EVICTION FROM THIS DWELLING?**

This question is asked of all households, regardless of whether the dwelling is owned or rented by the household, or whether there is any documentation or agreement.

Ask the question as it is written and record the response. Note that eviction may refer to justified eviction (as in the cases of non-payment of rent or legal land-taking) or unjustified eviction (eviction without due legal process). If necessary, explain to the respondent that the question refers to either of these cases. Record the respondent's perception of security from eviction.

**HC15G. HAVE YOU BEEN EVICTED FROM YOUR HOME AT ANY TIME DURING THE PAST 5 YEARS?**

Ask the question as it is written and record the response. Note that the question refers not to the respondent, but to all household members. Record 'Yes' if any household members were evicted from their home at any time during the past 5 years.

**INTERVIEWERS' OBSERVATIONS ON THE LOCATION, CONDITION AND SURROUNDINGS OF THE DWELLING:** Questions HC15H, HC15I and HC15J are used to record information about the location, condition and immediate surroundings of the dwelling. The information obtained will be used to assess whether the household members are protected from hazards in their living environment, or from exposure to extremes of weather or climate.

Note that these questions will normally be completed based on your observations.

**HC15H. Dwelling located in or near**

Observe location of dwelling, and circle appropriate location code as instructed during training. More than one location code may be circled. If in doubt, or if you are not able to assess the location of the dwelling, ask your supervisor for assistance.

**SURVEY COORDINATORS:** INSTRUCT SUPERVISORS TO COLLECT INFORMATION ON THE IMMEDIATE ENVIRONMENT OF DWELLINGS IN THE SAMPLE CLUSTERS AND TO ASSIST INTERVIEWERS IN RECORDING WHETHER THE DWELLING IS IN OR NEAR A HAZARDOUS AREA.

Circle the appropriate code if the dwelling is in or near a: **‘Landslide area’, ‘Flood-prone area’, ‘River bank’, ‘Steep hill’, ‘Garbage mountain/pile’, ‘Industrial pollution area’, ‘Railroad’, ‘Power plant’, or ‘Flyover’.** If none of these apply, circle ‘Y’ for ‘None of the above’.

**HC15I. Condition of dwelling**

Observe dwelling. If any of the listed conditions applies to this dwelling, circle code for all that apply. If none of these conditions apply, circle ‘Y’ for **‘None of the above’.**

You should observe the dwelling for the presence of the following conditions: **‘Cracks/openings in walls’, ‘No windows’, ‘Windows with broken glass/no glass’, ‘Visible holes in the roof’, ‘Incomplete roof’, and ‘Insecure door’.**

**HC15J. Dwelling surroundings**

Observe dwelling exterior and its surroundings. If any of the listed conditions apply to this dwelling, circle the appropriate code. Circle ‘A’ if there are very narrow passages between houses instead of proper roads. If there are many power cables near the dwelling connecting to the neighbourhood’s main distribution post, circle ‘B’. If neither of these conditions applies, circle ‘Y’ for **‘None of the above’.**

## CHILD DISCIPLINE MODULE

The purpose of this module is to obtain information on the use of physical and verbal means of disciplining children. The module aims to measure a range of discipline and punishment responses, from non-violent approaches to psychological aggression to moderate and severe forms of physical punishment.

**SURVEY COORDINATORS:** IF YOU PLAN TO USE THIS MODULE, EXTRA TRAINING FOR INTERVIEWERS, EDITORS AND SUPERVISORS WILL BE REQUIRED. QUESTIONS IN THIS MODULE MAY ASK ABOUT DISCIPLINARY METHODS THAT ARE VERY COMMON AND OTHERS THAT ARE STRONGLY CONDEMNED, EVEN PROHIBITED, AND THIS WILL VARY A GOOD DEAL AMONG COUNTRIES. EXTRA TIME IS REQUIRED TO PRACTISE USING THESE QUESTIONS, IN ROLE-PLAYING TRAINING SESSIONS AND DURING PILOT INTERVIEWS. NOTE THAT THE FIELD STAFF MAY HAVE STRONG VIEWS ON THESE DISCIPLINARY ACTIONS, AND YOU MUST ENSURE THAT THEIR VIEWS DO NOT INTERFERE WITH THE COLLECTION OF THE INFORMATION IN THE MODULE.

**SURVEY COORDINATORS:** GREAT CARE MUST BE TAKEN WITH THE TRANSLATION OF QUESTIONS IN THIS MODULE. THE QUESTIONS REFER TO DISCIPLINARY METHODS RANGING FROM NON-VIOLENT METHODS TO PSYCHOLOGICAL AGGRESSION TO PHYSICAL PUNISHMENT. NOTE THAT WE DO NOT ASK ABOUT THE CONSEQUENCES OF THESE ACTIONS, BUT ONLY WHETHER THE ACTIONS HAVE OCCURRED. PRACTICES COMMON IN ONE CULTURE MAY BE ABSENT IN ANOTHER. THE DISCIPLINE ITEMS IN THE MODULE HAVE BEEN CHOSEN WITH EXPERT ASSISTANCE AND AIM TO INCLUDE BEHAVIOURS THAT ARE UNIVERSAL – AND THAT RANGE FROM COMMON BEHAVIOURS TO RARE ONES. WHEN CORRECTLY TRANSLATED, THESE PRACTICES SHOULD BE UNDERSTOOD AND APPLICABLE IN VIRTUALLY ALL SETTINGS. PLEASE READ THE INSTRUCTIONS FOR EACH QUESTION TO ENSURE THAT YOU AND YOUR TRANSLATORS KNOW WHAT IS MEANT BY EACH ONE.

**SURVEY COORDINATORS:** PLACE THE ENTIRE MODULE (TABLE 1, TABLE 2, AND QUESTION MODULE) IMMEDIATELY FOLLOWING THE CHILD LABOUR MODULE. DO NOT CHANGE THE ORDER OF THE QUESTIONS.

The module has a unique structure and approach. You will use the first part to select, randomly, the child for whom you will be asking the questions CD11-CD13. These questions are placed in the second part of the module, and are designed to collect information about disciplinary methods used by the mother or primary caretaker for the selected child.

**TABLE 1** is used to list all **CHILDREN AGED 2-14 YEARS ELIGIBLE FOR CHILD DISCIPLINE QUESTIONS**. As described in the module itself, you will review the Household Listing and list each of the children aged 2-14 years (including children age 2 and age 14) in the table in order according to their line number (HL1). You should not include other household members outside of the age range of 2-14 years. One by one, record the line number (HL1), name (CD3), sex (HL4), age (HL5) and line number of mother or primary caretaker, from HL7 or HL8, as described below. Then record the total number of children aged 2-14 years in the box provided (CD7).

### CD1. Rank number

This is the number used to identify the one child randomly chosen for this module. You do not need to fill in or do anything in this column since the numbers are already provided.



**CD2. Line number**

This is the number used to identify each child from the household list who is eligible for this module. Go to the Household Listing and list below each of the children aged 2-14 years (including those age 2 and those age 14) in order according to their line number (HL1). Do not include other household members outside of the age range of 2 to 14 years.

It is very important that you list all eligible children in order according to their line number. Failure to do so may result in failure to select a child randomly and may introduce bias in the selection process.

**CD3. Name:**

Insert the name of each eligible child in this column next to his/her line number, copying from the Household Listing, column HL2.

**CD4. Sex:**

Record the child's sex from HL4.

**CD5. Age:**

Record the child's age from HL5.

**CD6. Line no. of mother/ caretaker:**

Record the line number of the child's mother or primary caretaker, from HL7 or HL8.

**CD7. Total children 2-14:**

Count the number of children and record the total number of children aged 2-14 years in the box provided.

If there is only one child aged 2-14 years in the household, then skip Table 2 and go to CD9; write down the rank number of the child and continue with CD11 to administer the questions on child discipline to the mother or the primary caretaker of the child.

If there is more than one eligible child on the list, go on to fill in Table 2.

**TABLE 2** is used for **THE SELECTION OF A RANDOM CHILD FOR CHILD DISCIPLINE QUESTIONS**. The table is used if there is more than one child aged 2-14 years in the household.

Go to the cover page of this questionnaire and find the last digit of the household number (HH2). Find the row with that digit in CD8.

Check the total number of eligible children (aged 2-14 years) in CD7. Find the column with that digit in CD8. Find the box where this row and this column meet and circle the number that appears in that box. Record the number you have circled in CD9. This is the rank number of the child selected for the child discipline questions.

After you have completed these tables and found the rank number of the selected child, continue:

**CD11. Write name and line no. of the child selected for the module from CD3 and CD2, based on the rank number in CD9.**

Now go back to Table 1 and find this rank number (CD9) in the list in column CD1. Record the line number and name of this selected child from Table 1 in CD11 on the next page.

The following questions are specially designed to measure various ways in which parents discipline their children. These questions are not intended to cover ALL ways that parents use to discipline children, but do cover some of the more common methods. It is important that you ask each question in a neutral way – do not let your voice reflect approval or disapproval of the various discipline methods mentioned.

First, start with the introductory sentence in CD12.

**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.**

Ask the selected child's mother or primary caretaker the questions in the Child Discipline module, beginning with CD12A. It is important to mention that we are interested in knowing only about what may have occurred during the past month – the 30 days preceding the survey.

When asking the questions, remind the respondent, from time to time, that you are asking about the last 30 days or one month, and that you are interested if she/he or anyone else has used this method with the child. Circle '1' for 'Yes' and '2' for 'No' in all questions up to CD12K.

**CD12A. TOOK AWAY PRIVILEGES, FORBADE SOMETHING (*name*) LIKED OR DID NOT ALLOW HIM/HER TO LEAVE HOUSE?**

'Privileges' means a right or a benefit that is not available to everyone. As children get older, parents/caretakers often extend privileges not available to a very young child. If you must explain what this question means, first try by asking each prompting question separately. If you need to give examples, try to phrase these questions appropriately for the child's age. "Did you (or someone else in the household) forbid (*name*) from leaving the house or from going outside for a time? Did you (or someone else in the household) prohibit (*name*) from doing something he/she usually does, such as playing with friends or watching TV?" For a young child, you might include such things as 'forbidding him/her to have sweets', etc.

**CD12B. EXPLAINED WHY SOMETHING (THE BEHAVIOUR) WAS WRONG?**

When a child does something wrong, some parents/caretakers try to teach the child not to repeat the behaviour by explaining why they consider the behaviour to be wrong. For example, a young child playing with matches may be told not to do so, because he or she could accidentally start a fire.

**CD12C. SHOOK HIM/HER?**

Some parents/caretakers may shake (pick the child up or take him/her by the shoulders or other part of the body) and shake the child back and forth more than once. This is a method some parents may use to punish a child for bad behaviour. They may use this method alone, or combine this form of punishment together with other actions or methods to teach the child.

**CD12D. SHOUTED, YELLED AT OR SCREAMED AT HIM/HER?**

Parents/caretakers may raise their voice when a child does something they consider wrong.

**CD12E. GAVE HIM/HER SOMETHING ELSE TO DO?**

This item is designed to capture another non-violent discipline technique, diverting the child's attention from the incorrect behaviour. A parent/caretaker may try to distract the child from doing the unsuitable behaviour by giving the child something else to do in its place. If the respondent does not understand, you may add a probe: "This means distracting the child or helping the child pay attention to something else."

**CD12F. SPANKED, HIT OR SLAPPED HIM/HER ON THE BOTTOM WITH BARE HAND.**

Spanking a child on the bottom with a bare hand is a form of physical punishment used by some parents/caretakers.

**CD12G. HIT HIM/HER ON THE BOTTOM OR ELSEWHERE ON THE BODY WITH SOMETHING LIKE A BELT, HAIRBRUSH, STICK OR OTHER HARD OBJECT?**

Hitting a child with a hard object (this includes a belt) is a more severe form of physical punishment used by some parents/caretakers. It is considered more severe than spanking because more force can be exerted with a hard object than a bare hand. Some parents/caretakers use this form of punishment to teach a child not to engage in a bad behaviour. Remember, you are asking if the method of punishment was used with this child during the previous 30 days.

**CD12H. CALLED HIM/HER DUMB, LAZY, OR ANOTHER NAME LIKE THAT?**

Some parents/caretakers use verbal abuse to teach a child not to engage in a bad behaviour.

**CD12I. HIT OR SLAPPED HIM/HER ON THE FACE, HEAD OR EARS?**

This asks if the parent/caretaker (or someone else in the household) slapped the child on the head or in the face, or on one or both ears. As before, slapping or hitting refers to an action carried out with a bare hand. (All questions using these terms refer to use of a bare hand, unless another object is explicitly mentioned.) Repeat this question slowly, and be sure to wait for an answer before going on to CD12J.

**CD12J. HIT OR SLAPPED HIM/HER ON THE HAND, ARM, OR LEG?**

This question is different from the previous question (CD12I) because it asks whether the child was slapped or hit with a bare hand on the extremities – hand or hands, arm(s) or leg(s).

**CD12K. BEAT HIM/HER UP WITH AN IMPLEMENT (HIT OVER AND OVER AS HARD AS ONE COULD)?**

This is the most severe form of physical punishment we ask about in this module. This question refers to punishment using a soft or hard object such as a stick, belt, cane or other object to beat the child repeatedly.

**CD13. DO YOU BELIEVE THAT IN ORDER TO BRING UP (RAISE, EDUCATE) (*name*) PROPERLY, YOU NEED TO PHYSICALLY PUNISH HIM/HER?**

This question is designed to capture attitudes toward discipline and should be asked last, after asking about parental/caretaker disciplinary behaviour. The question asks the parent/caretaker for her/his own opinion of whether it is necessary to use physical punishment when teaching the child to behave properly. Do not be surprised if a mother or a caretaker who has indicated that she/he has used physical punishment says that she/he does not believe in such punishment.

If the respondent states that she/he has no opinion on this or that she/he does not know, circle '8'.

## SOURCE AND COST OF SUPPLIES FOR INSECTICIDE-TREATED MOSQUITO NETS

**SURVEY COORDINATORS:** THIS MODULE INCLUDES TWO QUESTIONS THAT SHOULD BE USED ONLY IF THE ADDITIONAL ITN MODULE IS USED. PLACE THESE QUESTIONS AFTER TN3 IN THE ITN MODULE.

The following questions are used to obtain information on the place where the mosquito net was acquired and its cost to the household.

**TN3A. WHERE DID YOU GET THE *(name of net highest in the list of nets available in the household, in TN3)* MOSQUITO NET?**

Before you ask the question, you should check the responses in TN3. The question should be phrased to refer to the most effective mosquito net in the household – in other words, the first net listed in TN3 that is circled ‘1’. If there is only one net in the household, the question should obviously refer to this net.

**SURVEY COORDINATORS:** CODING CATEGORIES SHOULD BE DEVELOPED LOCALLY AND REVISED BASED ON THE PRE-TEST. HOWEVER, THE BROAD CATEGORIES MUST BE MAINTAINED.

The intent of this question is to identify where the first mosquito net listed in TN3 was obtained. Circle the code corresponding to the answer given. Probe to identify the type of source.

If the household obtained the net from a medical sector source, ask whether the place is in the public (run by government) or private sector. If the place is in the public sector, but is not one of the pre-coded choices, write the description in the space provided for ‘Other public (specify)’ and circle ‘16’. Similarly, if the place where the net was obtained is in the private medical sector, but is not one of the pre-coded choices, write the description in the space provided for ‘Other private (specify)’ circle ‘26’.

If the respondent answers that the mosquito net was obtained from another place not listed, write the description of the place in the space provided for ‘Other’ and circle ‘96’. Then notify your supervisor. Your supervisor will learn from other people in the community whether the place is public or private and then circle the code corresponding to the response. Circle ‘98’ if the respondent does not know where the mosquito net was obtained.

**TN3B. HOW MUCH DID YOU PAY FOR THE *(name of net highest in the list of nets available in the household, in TN3)* MOSQUITO NET?**

**SURVEY COORDINATORS:** CUSTOMIZE THE RESPONSE CATEGORIES IN ACCORDANCE WITH THE CURRENCY USED IN THE COUNTRY. IF FOUR DIGITS WILL BE SUFFICIENT TO CAPTURE THE PRICE OF THE NET, DO NOT CHANGE THE RESPONSE CODES. IF FIVE DIGITS WILL BE NECESSARY, FOR INSTANCE, MAKE SURE TO INCREASE THE NUMBER OF LINES PROVIDED IN THE RESPONSES TO FIVE, AND CHANGE ‘9996’ AND ‘9998’ TO ‘99996’ AND ‘99998’, RESPECTIVELY.

Record how much was paid in the local currency for the mosquito net identified in TN3. If the mosquito net was free, circle ‘9996’. Circle ‘9998’ if the respondent does not know how much was paid for the mosquito net.

## DISABILITY

**SURVEY COORDINATORS:** THIS MODULE SHOULD BE PLACED BETWEEN THE CHILD LABOUR AND SALT IODIZATION MODULES. CHECK CHAPTER 3 AND APPENDIX TWO FOR THE EXACT POSITION OF THE MODULE IN CASE OTHER OPTIONAL MODULES ARE USED.

**SURVEY COORDINATORS:** REMEMBER THAT THIS MODULE CAN BE USED FOR SCREENING PURPOSES. YOU MAY WISH TO FOLLOW UP ON INFORMATION COLLECTED IN THIS MODULE BY A SECOND-STAGE STUDY, IN WHICH A RANDOM SUB-SAMPLE OF CHILDREN IDENTIFIED WITH DISABILITIES AND THOSE IDENTIFIED WITHOUT DISABILITIES MAY UNDERGO CLINICAL EVALUATION. CONSULT THE REFERENCES LISTED IN CHAPTER 3 AND, IF NEEDED, CONTACT THE GLOBAL MICS3 COORDINATOR FOR MORE INFORMATION ABOUT HOW TO ORGANIZE FOLLOW-UP VISITS. YOUR DECISION TO FOLLOW UP WITH A SECOND-STAGE STUDY COULD IMPLY THAT INTERVIEWERS SHOULD INFORM RESPONDENTS THAT A FOLLOW-UP VISIT MAY TAKE PLACE.

This module is to be administered to the mother or primary caretaker of each child resident in the household aged 2-9 years (this includes those age 2 and age 9). For household members below age 2 or above age 9, rows should be left blank.

### DA1. *Line No:*

This is the number used to identify each child eligible for this module. You do not need to fill in or do anything in this column since the numbers are already provided.

### DA2. *Child's name:*

For each child in the household 2-9 years of age, insert the child's name in this column next to his/her line number (from Household Listing HL1), copying from the Household Listing, column HL2. This is done to prevent confusion during the interview. For all other household members less than 2 years of age or older than 9, leave the space next to their line numbers blank.

Now, read the introduction to this module to the mother or primary caretaker of each child by saying:  
**"I WOULD LIKE TO ASK YOU IF ANY CHILD IN THIS HOUSEHOLD AGED 2 THROUGH 9 HAS ANY OF THE HEALTH CONDITIONS I AM GOING TO MENTION TO YOU."**

Next, ask the following questions DA3 through DA13 about each child, in turn. Ask the entire set of questions about the first child, and then go on to ask about the next child in the list, asking the entire set of questions about the next child, until you have recorded answers for each child listed. In cases when there is more than one mother/primary caretaker for children listed in the module, complete asking questions about the children of the first mother/primary caretaker, then move to the next mother/primary caretaker.

Circle '1' for 'Yes' and '2' for 'No' for all questions in this module. Insert the child's name in the question. Read out the entire question as it is written.

**DA3. COMPARED WITH OTHER CHILDREN, DOES OR DID (*name*) HAVE ANY SERIOUS DELAY IN SITTING, STANDING, OR WALKING?**

**DA4. COMPARED WITH OTHER CHILDREN, DOES (*name*) HAVE DIFFICULTY SEEING, EITHER IN THE DAYTIME OR AT NIGHT?**

**DA5. DOES (*name*) APPEAR TO HAVE DIFFICULTY HEARING? (USES HEARING AID, HEARS WITH DIFFICULTY, COMPLETELY DEAF?)**

Do not mention the probing questions unless the respondent cannot answer the first question.

**DA6. WHEN YOU TELL (*name*) TO DO SOMETHING, DOES HE/SHE SEEM TO UNDERSTAND WHAT YOU ARE SAYING?**

**DA7. DOES (*name*) HAVE DIFFICULTY IN WALKING OR MOVING HIS/HER ARMS OR DOES HE/SHE HAVE WEAKNESS AND/OR STIFFNESS IN THE ARMS OR LEGS?**

**DA8. DOES (*name*) SOMETIMES HAVE FITS, BECOME RIGID, OR LOSE CONSCIOUSNESS?**

**DA9. DOES (*name*) LEARN TO DO THINGS LIKE OTHER CHILDREN HIS/HER AGE?**

**DA10. DOES (*name*) SPEAK AT ALL (CAN HE/SHE MAKE HIM OR HERSELF UNDERSTOOD IN WORDS; CAN SAY ANY RECOGNIZABLE WORDS)?**

If needed, use the additional probing questions in parentheses, replacing he/she with the appropriate pronoun.

**DA11. *For 3-9 year olds:* IS (*name*)’S SPEECH IN ANY WAY DIFFERENT FROM NORMAL (NOT CLEAR ENOUGH TO BE UNDERSTOOD BY PEOPLE OTHER THAN THE IMMEDIATE FAMILY)?**

This question should be asked only for children aged 3-9 years (children age 2 should not be asked this question). Check Household Listing, HL5, for the child’s age. If the child is 2 years of age, leave the question blank.

If needed, use the additional probing questions in parentheses.

**DA12. *For 2-year-olds:* CAN (*name*) NAME AT LEAST ONE OBJECT (FOR EXAMPLE, AN ANIMAL, A TOY, A CUP, A SPOON)?**

This question should be asked only for children age 2. Check Household Listing, HL5, for the child’s age. If the child is 3-9 years old, leave the question blank.

If needed, use the additional probing questions in parentheses.

**DA13. COMPARED WITH OTHER CHILDREN OF THE SAME AGE, DOES [*name*] APPEAR IN ANY WAY MENTALLY BACKWARD, DULL OR SLOW?**

This question should be asked about each child listed in this module (that is, each child age 2 through 9).

## MATERNAL MORTALITY

**SURVEY COORDINATORS:** IN SETTINGS WHERE PREMARITAL PREGNANCY IS RARE, QUESTIONS MM6-MM8 SHOULD BE RE-FORMULATED TO INQUIRE ABOUT SISTERS WHO HAVE EVER MARRIED, RATHER THAN ABOUT SISTERS WHO 'REACHED AGE 15'. QUESTIONS MM6, MM7 AND MM8 SHOULD BE CHANGED TO:

**MM6. HOW MANY OF THESE SISTERS WERE EVER MARRIED?**

**MM7. HOW MANY OF THESE EVER-MARRIED SISTERS ARE ALIVE NOW?**

**MM8. HOW MANY OF THESE EVER-MARRIED SISTERS HAVE DIED?**

Maternal mortality refers to deaths among women who are pregnant, women who die during childbirth and women who die during the post-partum period. For this questionnaire, the post-partum period is defined as the 6-week period following the end of pregnancy.

This module is administered to adult household members only. For the purposes of this module, adults are defined as persons aged 15 years or older.

### **MM1. *Line number:***

This is the number used to identify each household member eligible for this module (household members aged 15 years and older). You do not need to fill in or do anything in this column since the numbers are already provided.

### **MM2. *Name:***

Insert the name of each adult (those at least 15 years of age) in the household in this column next to his/her line number (from Household Listing, HL1), copying from the Household Listing, column HL2.

After completing the list of adults, you will need to try and speak with everyone on the list available in the household at the time of your visit. Ask the following questions MM3 through MM8 to each adult, in turn, and then continue to the next adult on the list, until you have recorded answers for each adult listed. In the case of adults who are not available during your visit, you will ask for a proxy report (see MM3 below). Note that it is not necessary to do call-back visits to the household to complete this information.

### **MM3. IS THIS A PROXY REPORT?**

MM3 asks if the responses recorded for this person on the list is a proxy report, that is, if the information that will be recorded for this adult is being provided by the person him/herself or by another adult household member. If the adult listed is available for interview, record '2' for 'No' and skip to MM5.

If an adult listed is not at home, ask if there is another adult household member who is able to respond to questions about the absent person's sisters. If there is another adult who can respond, record a 'Yes' ('1') to question MM3 and continue to MM4.

Even in cases where there are no adults in the household who feel they can answer questions regarding the absent person's family, always ask MM5–MM9 and record 'Doesn't know' ('98'), where necessary.

If there is another adult present, ask questions MM5-MM9, specifying that you want to know about the sisters of the adult who is not present. Name that adult not present, and ask each question in turn, even if the respondent is unsure of some answers. In such cases, record '98' for 'Doesn't know'.

**MM4. *Line Number of proxy respondent (from household listing HL1):***

Record the line number of the adult who will provide information for the absent person (from Household Listing, HL1).

**MM5. HOW MANY SISTERS (BORN TO THE SAME MOTHER) HAVE YOU EVER HAD?**

This question asks how many sisters the respondent (or the adult for whom he/she is responding) has ever had. It is important that the respondent understands that you are asking about her true biological sisters, that is, all of the females born to the respondent's mother. For example, female cousins or sisters-in-law who may commonly be referred to as 'sister' should not be counted. Emphasize to the respondent that this number should include both her sisters who are living and those who have died.

**MM6. HOW MANY OF THESE SISTERS EVER REACHED AGE 15?**

Enter the number of sisters who reached age 15 in the spaces provided. Use leading zeros if necessary. Again, this may include sisters who are alive now and age 15 or older and sisters who have died at some point after reaching their 15th birthday. The answer to this question must be less than (one or more sisters died before reaching age 15) or equal to (all of the sisters survived to age 15) the total number of sisters reported in MM5.

**MM7. HOW MANY OF THESE SISTERS (WHO ARE AT LEAST 15 YEARS OLD) ARE ALIVE NOW?**

Enter the number of sisters age 15 or older who are alive now in the spaces provided.

**MM8. HOW MANY OF THESE SISTERS WHO REACHED AGE 15 OR MORE HAVE DIED?**

Enter the number of sisters who died when they were 15 or older. The sum of the numbers reported in MM7 and MM8 must equal the total number of sisters aged 15 or more reported in MM6.

Note that there are no skips in questions MM5-MM9. If the respondent states in MM5 that she/he never had any sisters, you should enter '00' for the following four questions, MM6-MM9.

**MM9. HOW MANY OF THESE DEAD SISTERS DIED WHILE PREGNANT, OR DURING CHILDBIRTH, OR DURING THE SIX WEEKS AFTER THE END OF PREGNANCY?**

This question asks about sisters reported in MM8 who died during any of the following three time periods: while pregnant, during childbirth or during the 6 weeks after the end of pregnancy. There are two important issues here. First, respondents should include any sister's death (recorded in MM8) that occurred during these time periods, regardless of the cause of death. For example, if a sister died from an accident and this accident occurred while she was pregnant or during the 6 weeks following her pregnancy, this death should be reported in MM9.

It is also important to remember that not all pregnancies produce a live birth. Therefore, the 6-week period after the end of a pregnancy could refer to a 6-week period following a miscarriage, an induced abortion or a stillbirth.



**SURVEY COORDINATORS:** YOU MAY PREFER TO EXPAND MM9 INTO THREE SEPARATE QUESTIONS. THIS CAN INCREASE THE QUALITY OF INFORMATION COLLECTED:

**MM9. HOW MANY OF THESE DEAD SISTERS DIED WHILE PREGNANT?**

**MM10. HOW MANY OF THESE DEAD SISTERS DIED DURING CHILDBIRTH?**

**MM11. HOW MANY OF THESE DEAD SISTERS DIED DURING THE SIX WEEKS AFTER THE END OF PREGNANCY?**

## HOW TO FILL IN THE QUESTIONNAIRE FOR INDIVIDUAL WOMEN

### CORE MODULES

The purpose of the Questionnaire for Individual Women is to provide information on a wide range of MICS3 indicators. You will have identified women who are eligible for this questionnaire after you have completed the Household Listing in the Household Questionnaire. Eligible women for this questionnaire are women listed in the Household Listing who are age 15 through 49 (see column HL6 of the Household Listing). The core modules of this questionnaire include Child Mortality, Tetanus Toxoid, Maternal and Newborn Health, Marriage/Union, Contraception, and HIV/AIDS.

**SURVEY COORDINATORS:** THIS QUESTIONNAIRE SHOULD ONLY BE ADMINISTERED BY A SKILLED FEMALE INTERVIEWER. IT INCLUDES MODULES AND QUESTIONS ON SENSITIVE AND PRIVATE TOPICS SUCH AS SEXUAL BEHAVIOUR, CONTRACEPTION AND HIV/AIDS. THE USE OF A MALE INTERVIEWER WILL RESULT IN THE COLLECTION OF UNRELIABLE INFORMATION, IF NOT JEOPARDIZE THE ADMINISTRATION OF THE QUESTIONNAIRE OVERALL AND LEAD TO REFUSALS.

IT IS ALSO STRONGLY RECOMMENDED THAT INTERVIEWERS MAKE EVERY ATTEMPT TO INTERVIEW WOMEN ALONE.

### WOMEN'S INFORMATION PANEL

WM1-WM6 should be filled in before you start the interview.

#### **WM1. Cluster number**

Enter the cluster number from the Household Questionnaire, question HH1.

#### **WM2. Household number**

Enter the household number from the Household Questionnaire, question HH2.

#### **WM3. Woman's name**

Enter the woman's name from the Household Questionnaire, column HL2 of the Household Listing.

#### **WM4. Woman's line number**

Enter the woman's line number from the Household Questionnaire, column HL1 of the Household Listing.

#### **WM5. Interviewer name and number**

Enter your own name and identifying number. You will be provided with these identification numbers at the time of training.

#### **WM6. Day/month/year of interview**

Enter the date of the interview as day, month and year. If the interview is not completed on your first visit and you visit the household to interview the woman again, revise and enter the final date of interview. In other words, the date here should be the date when you have either completed the

woman's questionnaire, or when the interview has not been conducted but it has been decided that there will be no more attempts to interview the eligible woman.

#### **WM7. Result of women's interview**

Complete this question once you have concluded the interview with the woman. Circle the code corresponding to the result of the interview. If the questionnaire is completed, circle '1' for 'Completed'. If you have not been able to contact the woman after repeated visits, circle '2' for 'Not at home'. If the woman refuses to be interviewed, circle '3' for 'Refused'. If you were able to only partly complete the questionnaire, circle '4' for 'Partly completed'. If the woman is incapacitated, circle '5'. If you have not been able to complete this questionnaire for another reason, you should circle '6' for 'Other' and specify the reason in the space provided.

Make every attempt to carry out the woman's interview in privacy. Ask all other household members or anyone else who is present (including male members of the survey team) to leave in a courteous manner.

If the respondent is a mother/caretaker, ask her to collect all the birth certificates and health/immunization cards she has for her children or the children she cares for before you begin the interview. You will need these when you go on to interview her about her children under age five.

Repeat greeting if not already read to this woman: **"WE ARE FROM (*country-specific affiliation*). WE ARE WORKING ON A PROJECT CONCERNED WITH FAMILY HEALTH AND EDUCATION. I WOULD LIKE TO TALK TO YOU ABOUT THIS. THE INTERVIEW WILL TAKE ABOUT (*number*) MINUTES. ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND YOUR ANSWERS WILL NEVER BE IDENTIFIED. ALSO, YOU ARE NOT OBLIGED TO ANSWER ANY QUESTION YOU DON'T WANT TO, AND YOU MAY WITHDRAW FROM THE INTERVIEW AT ANY TIME. MAY I START NOW?"**

**SURVEY COORDINATORS:** WHEN THE QUESTIONNAIRES ARE CUSTOMIZED, REPLACE (*country-specific affiliation*) WITH THE NAME OF THE IMPLEMENTING AGENCY IN YOUR COUNTRY. ESTIMATE THE APPROXIMATE DURATION OF THE WOMAN'S INTERVIEW DURING THE PRE-TEST AND REPLACE (*number*) WITH THIS ESTIMATE.

As with the similar sentence at the beginning of the Household Questionnaire, you may change the wording of these introductory sentences as appropriate. You must make sure, however, to include the following when you are introducing yourself: The name of the implementing agency; the topic of the survey; approximate duration of the interview; the issue of confidentiality; and with whom you would like to speak.

If permission is given, begin the interview. If the respondent does not agree to continue, thank her and go on to the next interview. Later, discuss the refusal with your supervisor; you or another person from the team may attempt to interview the woman for a second time. This will depend on your description of the refusal. However, remember that a woman's participation in the survey must be on a voluntary basis, and potential respondents must never be forced to participate.

**Age and date of birth:** Age (WM8 or WM9) is one of the most important questions in the interview, since almost all analysis of the data depends on the respondent's age. This question must be asked independently of the information on the Household Questionnaire. Even if you already asked the

respondent her age when you were completing the Household Questionnaire, you must ask again for her date of birth and age on the Questionnaire for Individual Women.

**WM8. IN WHAT MONTH AND YEAR WERE YOU BORN?**

If the respondent knows her date of birth, write it in the appropriate spaces for 'Month' and 'Year'. You will need to convert the month into numbers. For this, January is '01', February is '02', March is '03', etc. If the month or day contains only one digit, use a leading zero to fill in the first space. For example, the month of March is coded as '03'. If she does not know her month of birth, circle '98' for 'DK month' and ask her for the year of her birth. If she knows the year, write it in the spaces for 'Year'. Try under all circumstances to obtain at least the year of birth. If the respondent is unable to provide this information, ask whether she has any documentation such as an identification card, horoscope, or a birth or baptismal certificate that might give her date of birth. If such documentation is available, ask the woman if the information on the document(s) is correct. Only when it is absolutely impossible to even estimate the year of birth should you circle '9998' for 'DK year'.

**WM9. HOW OLD WERE YOU AT YOUR LAST BIRTHDAY?**

Enter her age in completed years, that is, her age at her last birthday. If she knows her age, write it in the space provided.

If she does not know the answer to either of these two questions, probe for clues that might indicate her age. Ask how old she was when she was first married or first gave birth. Try to find out how long ago she got married or had her first child. (You may be able to find out the age of her oldest child if the child is still living. You may be able to relate her age to someone else in the household whose age is known. You may be able to determine her age based on how old she was when an important event occurred, and the number of years that have elapsed since.) You MUST fill in this information. Do not leave this blank.

Finally, before moving on to the next question, verify that the respondent is indeed eligible. If the woman is younger than 15 or older than 49, you have to terminate the interview. Do this tactfully by asking two or three more questions and then thank the respondent for her cooperation; write 'INELIGIBLE' on the cover page of the questionnaire, and correct the age and eligibility information for this woman on the cover page and in Columns HL5 and HL6 of the Household Questionnaire.

Questions WM10-WM14 are about the educational attainment and literacy of the woman. Note that you will have collected some of this information on the woman in the Education module of the Household Questionnaire, either from another household member or from the woman herself. You should still ask these questions. You will be collecting slightly different information with these questions.

**WM10. HAVE YOU EVER ATTENDED SCHOOL?**

Circle the code corresponding to the response given. If 'No', skip to WM14. Otherwise, continue on to the next question.

The term 'school' includes primary, secondary and post-secondary schooling, as well as any other intermediate levels of schooling in the *formal school system*. It also includes technical or vocational training beyond the primary-school level, such as long-term courses in mechanics or secretarial work.

Schools that carry out non-standard curriculum are also included here. Ensure that the woman understands what is meant by 'non-standard curriculum'. A non-standard curriculum includes

religious schools, such as Koranic schools, that do not teach a full, standard school curriculum. If a school teaches religious courses but also includes the standard curriculum – such as many Catholic schools – it would be coded as a standard school.

**WM11. WHAT IS THE HIGHEST LEVEL OF SCHOOL YOU ATTENDED: PRIMARY, SECONDARY OR HIGHER?**

Circle the code corresponding to the highest level ever attended, regardless of whether or not the year was completed. For example, if she attended Form/Year 1 of secondary school for only 2 weeks, record 'Secondary'.

**WM12. WHAT IS THE HIGHEST GRADE YOU COMPLETED AT THAT LEVEL?**

**SURVEY COORDINATORS:** CHANGE THE TERM 'GRADE' TO THE TERM USED LOCALLY, SUCH AS 'FORM' OR 'YEAR'.

For this question, record the number of years that the respondent successfully completed at that level recorded in WM11. For example, if a woman was attending grade 3 of secondary school and left school before completing that year, record '02'. Although grade 3 was the highest year she attended, she completed 2 years of secondary school. If less than 1 year, record '00' for completed years. For example, if she attended only 2 weeks of grade 1 of secondary school, record '00' for completed years.

**WM13. *Check WM11.***

If the respondent attended secondary school or a higher level, check the corresponding box and go to the next module. If the highest level the respondent attended was primary school, check the appropriate box and continue to WM14.

**WM14. NOW I WOULD LIKE YOU TO READ THIS SENTENCE TO ME.**

**SURVEY COORDINATORS:** ARRANGE FOR CARDS WITH SIMPLE SENTENCES WRITTEN ON THEM PERTAINING TO DAILY LIFE. GIVE ONE COPY OF THE CARD TO EACH INTERVIEWER BEFORE FIELDWORK BEGINS. IF INTERVIEWS WILL BE CONDUCTED IN MORE THAN ONE LANGUAGE, PREPARE CARDS FOR EACH LANGUAGE USED IN THE INTERVIEWS. ADAPT THE LIST OF SENTENCES IN THE MODEL QUESTIONNAIRE TO INCLUDE CULTURALLY RELEVANT SENTENCES.

To ascertain whether women are literate or not, you will be showing women you interview cards with pre-printed sentences on them, and asking women to read them. Note that this question will be asked only to women who have not attended school, or did not attend school beyond the primary level. We assume that women who have attended secondary school or higher are literate. However, it is also known that some women who have attended or even completed primary school may be functionally illiterate. Therefore, we need to ask this question to such women.

Based on your knowledge of the respondent, choose the card with the language in which the respondent is likely to be able to read if she is literate. Show the first sentence on the card to the respondent. Give the respondent enough time to read the sentence; do not rush her. If the respondent cannot read the whole sentence, probe: **"CAN YOU READ PART OF THE SENTENCE TO ME?"**

Record whether the respondent was not able to read the sentence at all, was able to read only parts of the sentence, or was able to read the whole sentence. If the respondent asks for the sentences in another language and you were provided a card with sentences in that language, show the respondent the appropriate card. If there is no card with sentences in the language required, circle '4', and specify the language. If the respondent is blind/mute or visually/speech impaired, circle '5'.

It is important to avoid the problem of having other respondents in the household overhear the sentence being read. Subsequent respondents in the household might be able to repeat the sentence when they are interviewed, even if they are unable to read. If there is a second eligible woman in the household, show her the second sentence on the card. Show the third respondent the third sentence on the card, and the fourth respondent the fourth sentence. If there are more than five respondents, start again with the first sentence on the card.

## CHILD MORTALITY MODULE

This module is to be administered to all eligible women age 15-49. All questions refer only to live births. These questions are used to collect information about all births the woman has ever had (including births from earlier marriages). The answers are used to estimate childhood mortality rates.

**SURVEY COORDINATORS:** EXPLAIN WHAT A LIVE BIRTH IS TO INTERVIEWERS DURING TRAINING. MAKE SURE THAT INTERVIEWERS UNDERSTAND CLEARLY THE DIFFERENCE BETWEEN A LIVE BIRTH AND OTHER PREGNANCY OUTCOMES, SUCH AS STILLBIRTHS, MISCARRIAGES AND ABORTIONS. IN COUNTRIES WHERE THE TERM USED FOR ‘LIVE BIRTH’ MAY NOT BE DISTINCT ENOUGH FROM TERMS USED FOR OTHER PREGNANCY OUTCOMES, MAKE SURE THAT THE QUESTIONNAIRE AND YOUR INSTRUCTIONS TO THE INTERVIEWERS ARE VERY CLEAR, AND THAT THE INTERVIEWERS ARE ABLE TO EXPLAIN TO RESPONDENTS WHAT IS MEANT BY A LIVE BIRTH, IF NECESSARY.

It is important that the respondent understands which events to include in these reports. We want to know about all of the woman’s natural births, even if the child no longer lives with her and even if the child is no longer alive. We want to know about children who were born alive – ever breathed or cried or showed other signs of life – even if they lived only a few minutes or hours.

We do not want you to record any stillbirths (children who were born dead), or miscarriages, or children adopted by the woman, or children of her present husband born to another wife (to whom the respondent herself did not give birth).

### **CM1. NOW I WOULD LIKE TO ASK ABOUT ALL THE BIRTHS YOU HAVE HAD DURING YOUR LIFE. HAVE YOU EVER GIVEN BIRTH?**

The first question of the module is used to determine if the rest of the module and several subsequent modules should be administered to this woman. If the answer is ‘Yes’, circle ‘1’, and continue with the next question. If the woman says she has never given birth, read out the probe to make sure the woman understands the meaning of ‘birth’, as described during your training. Explain:” **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?”** If her answer is still ‘No’, skip directly to the Marriage/Union module.

**SURVEY COORDINATORS:** THE SKIP IN QUESTION CM1 REFERS TO THE SKIP IN THE MODEL QUESTIONNAIRE. THE SKIP IS TO THE MARRIAGE/UNION MODULE SINCE THE NEXT TWO MODULES, ‘TETANUS TOXOID’ AND ‘MATERNAL AND NEWBORN HEALTH’ ARE ADMINISTERED ONLY TO WOMEN WHO HAVE HAD AT LEAST ONE LIVE BIRTH DURING THE LAST 2 YEARS PRECEDING THE DATE OF INTERVIEW. CUSTOMIZE THE SKIP IN ACCORDANCE WITH THE MODULES INCLUDED IN YOUR QUESTIONNAIRE.

### **CM2A. WHAT WAS THE DATE OF YOUR FIRST BIRTH? I MEAN THE VERY FIRST TIME YOU GAVE BIRTH, EVEN IF THE CHILD IS NO LONGER LIVING, OR WHOSE FATHER IS A MAN OTHER THAN YOUR CURRENT PARTNER.**

You need to obtain the year of the woman’s first birth, which means the very first time she gave birth, even if the child is no longer living, or is the child of a partner other than her current one. As with all questions about dates and ages, you may need to probe to obtain the best information.

Ask for the child's date of birth. If she knows the exact birth date, enter the day, month and year of birth on the lines provided and continue to CM3. You will have to convert the month to a number, as you have been instructed. If the month or day contains only one digit, use a zero to fill in the first space. For example, the month of March is coded as '03'.

If she does not know the exact birth date, ask her the day, month and year separately. Enter the information as provided. If she does not know the day, circle '98'.

If she can give the month of birth, convert it to a number and enter it on the line provided. If she cannot give the month, probe to try to estimate the month. If you cannot estimate the child's month of birth from this information, you may need to find out in which season he/she was born. If it is still not possible to estimate the child's month of birth, circle '98' in the space for month of birth.

If she can give a year of birth, write it in the space provided and continue to CM3. If she cannot give the year of the birth, circle '9998' and go to CM2B.

**CM2B. HOW MANY YEARS AGO DID YOU HAVE YOUR FIRST BIRTH?**

This question is asked only to women who are not able to give the year of their first birth in CM2.

It may be easier to obtain this information, especially if the first child is still alive. In this case, the answer is the first child's current age in completed years. Record the response in the space provided.

**CM3. DO YOU HAVE ANY SONS OR DAUGHTERS TO WHOM YOU HAVE GIVEN BIRTH WHO ARE NOW LIVING WITH YOU?**

Read the question slowly. The sons and daughters being considered are those who live with her in her household (these children should have been listed in the Household Listing). Circle the code corresponding to the response. If she answers 'No', skip to CM5.

**CM4. HOW MANY SONS LIVE WITH YOU? HOW MANY DAUGHTERS LIVE WITH YOU?**

If the answer to CM3 is 'Yes', record the number of sons and daughters living with the woman in the space provided. If the answer is 'None' for sons (or if she does not have any sons), record '00' in the space provided for sons. Similarly, if she has no daughters now living with her (or if she does not have any daughters), record '00' in the space for daughters. Do not leave either of the spaces blank. Since the question is asked only to women who have children living with them in the same household, at least one of the spaces should have a value higher than 00.

Remember, we are interested only in the respondent's OWN children – not foster children, children of her husband by another woman, or children of another relative.

**CM5. DO YOU HAVE ANY SONS OR DAUGHTERS TO WHOM YOU HAVE GIVEN BIRTH WHO ARE ALIVE BUT DO NOT LIVE WITH YOU?**

This refers to sons and daughters who are alive but not living with the woman. For example, one or more of her children may be living with a relative, staying in a boarding school, been given up for adoption, or may be grown-up children who have left home.

Make sure the respondent is not reporting dead children in this question. Circle the code corresponding to the response. If she answers 'No', skip to CM7.



**CM6. HOW MANY SONS ARE ALIVE BUT DO NOT LIVE WITH YOU? HOW MANY DAUGHTERS ARE ALIVE BUT DO NOT LIVE WITH YOU?**

If the answer to CM5 is 'Yes', record the number of sons and daughters who are alive but not living with the respondent in the space provided. If the answer is 'None' for sons (or if she does not have any sons who are alive), record '00' in the space provided for sons. If the answer is 'None' for daughters (or if she does not have any daughters who are alive), record '00' in the space provided for daughters.

Since this question is asked only to women who have children alive who are not living with them, at least one of the spaces should have a value higher than 00. For women who have been asked this question, the spaces should not be left blank.

**CM7. HAVE YOU EVER GIVEN BIRTH TO A BOY OR GIRL WHO WAS BORN ALIVE BUT LATER DIED?**

This question is extremely important.

Circle the code corresponding to the response. Some respondents may fail to mention children who died very young, so if she answers 'No', it is important to probe by asking "...THAT IS, ANY BABY WHO CRIED OR SHOWED SIGNS OF LIFE BUT SURVIVED ONLY A FEW HOURS OR DAYS (OR ONLY A SHORT TIME)?" If the answer is still 'No', skip to CM9.

Some respondents may be reluctant to talk about this subject and may become sad or upset that you are asking such questions. Be sympathetic and tactful in such situations. Say that you know the subject is painful, but the information is important.

**CM8. HOW MANY BOYS HAVE DIED? HOW MANY GIRLS HAVE DIED?**

If the answer to CM7 is 'Yes', record the number of sons and daughters who were born alive but later died in the spaces provided. Do not leave either of the spaces blank. For women who have been asked this question, at least one of the spaces should have a value higher than 00.

**CM9. Sum answers to CM4, CM6 and CM8**

Add the numbers of births reported in CM4, CM6 and CM8 and write the sum here, then check:

**CM10. JUST TO MAKE SURE THAT I HAVE THIS RIGHT, YOU HAVE HAD IN TOTAL (TOTAL NUMBER) BIRTHS DURING YOUR LIFE. IS THIS CORRECT?**

If she says it is correct, check the box marked 'Yes' and continue to the next question. If she says 'No', first check your addition and then go back through the list to check with the respondent whether you have obtained the information correctly. For example, starting with CM4, you would ask: "YOU HAVE TWO SONS AND ONE DAUGHTER LIVING WITH YOU, IS THAT CORRECT?" Do the same for CM6 and CM8. Correct the answers and the sum mentioned in CM9 and then continue to the next question. Make sure to cancel the 'No' in CM10 and check 'Yes' after you have made the corrections.

**CM11. OF THESE (total number) BIRTHS YOU HAVE HAD, WHEN DID YOU DELIVER THE LAST ONE (EVEN IF HE/SHE HAS DIED)?**

This question is used to ascertain the woman's eligibility for the subsequent two modules.

Enter the date of the woman's most recent birth, even if the child is no longer alive, in the space provided. If the child has died, take special care when referring to this child by name in the following modules.

If the woman does not remember the day of birth, you may enter '98' to the space provided for 'Day'. Note that you **MUST** obtain exact information on the month and year of the last birth; '98' is not allowed for month and year.

**CM12. Check CM11: Did the woman's last birth occur within the last 2 years, that is, since (day and month of interview in 2003)?**

**SURVEY COORDINATORS:** INTERVIEWERS SHOULD REPLACE *(day and month of interview in 2003)* WITH THE DAY AND MONTH THE INTERVIEW IS BEING CONDUCTED, AND USE 2003 OR 2004 FOR THE YEAR, DEPENDING ON WHETHER THE INTERVIEW IS CONDUCTED IN 2005 OR 2006.

EXAMPLES:

- IF FIELDWORK WILL BE COMPLETED DURING NOVEMBER 2005, CHANGE TO 'NOVEMBER 2003' AND INSTRUCT INTERVIEWERS TO USE THE DAY OF THE INTERVIEW. IF AN INTERVIEW IS CONDUCTED ON 23 NOVEMBER 2005, THE SENTENCE SHOULD READ ***"Did the woman's last birth occur within the last 2 years, that is, since 23 November 2003?"***
- IF FIELDWORK WILL BE COMPLETED DURING JANUARY AND FEBRUARY 2006, CHANGE TO '2004' AND INSTRUCT INTERVIEWERS TO USE THE DAY AND MONTH OF INTERVIEW. IF AN INTERVIEW IS CONDUCTED ON 2 FEBRUARY 2006, THE SENTENCE SHOULD READ ***"Did the woman's last birth occur within the last 2 years, that is, since 2 February 2004?"***

If the respondent's last birth occurred in the last 2 years, enter the name of the child on the line provided and check the box marked 'Yes'. Then continue with CM13. If the respondent's last birth did not occur in the last 2 years, check the box marked 'No' and go to the Marriage/Union module.

**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?**

Ask this question to women who have had a live birth during the last 2 years. The question is asked to find out whether the pregnancy for this child was wanted at the time, whether the woman actually wanted to have the child later than she did, or whether she did not want the pregnancy and the subsequent birth at all. Circle the appropriate code and continue with the next module.

**SURVEY COORDINATORS:** YOU MAY USE THE EXAMPLE BELOW (AND SIMILAR OTHER EXAMPLES) TO EXPLAIN TO INTERVIEWERS DURING TRAINING HOW THIS MODULE SHOULD BE COMPLETED AND HOW THE RESPONSES SHOULD BE ENTERED.

WOMAN INTERVIEWED IN FEBRUARY 2006 HAS HAD FOUR LIVE BIRTHS. TWO OF HER CHILDREN, ONE BOY AND ONE GIRL, ARE LIVING WITH HER. ONE BOY, FROM HER FIRST BIRTH IN MARCH 1995, IS LIVING ELSEWHERE, AND ONE GIRL (WANTED AT THE TIME), WHO WAS BORN IN NOVEMBER 2005, HAS DIED SINCE THEN. ASSUMING THAT THE WOMAN HAS GIVEN THE CORRECT INFORMATION (NO CHANGES NEEDED AFTER CHECKING CM10), THE FOLLOWING RESPONSES SHOULD BE CODED:

CM1	'1' CIRCLED
CM2A	'98' CIRCLED FOR DAY, '03' ENTERED FOR MONTH, '1995' ENTERED FOR YEAR.
CM2B	SKIPPED (REMAINS BLANK).
CM3	'1' CIRCLED
CM4	'01' FOR SONS AT HOME, AND '01' FOR DAUGHTERS AT HOME ENTERED
CM5	'1' CIRCLED
CM6	'01' ENTERED FOR SONS ELSEWHERE, '00' ENTERED FOR DAUGHTERS ELSEWHERE
CM7	'1' CIRCLED
CM8	'00' ENTERED FOR BOYS DEAD, '01' ENTERED FOR GIRLS DEAD
CM9	'04' ENTERED
CM10	'YES' MARKED
CM11	'98/11/2005' ENTERED
CM12	'YES' MARKED
CM13	'1' CIRCLED

**TETANUS TOXOID (TT) MODULE**

This module is to be administered to all women who have had a live birth in the 2 years preceding the date of the interview. If the woman has had no live births during the 2 years preceding the interview, you should leave this module blank and skip to the next module.

The purpose of this module is to obtain information about protection from tetanus for infants through vaccination of their mothers. Neonatal tetanus is easily prevented if a woman receives the immunization while she is pregnant with the baby, or receives several vaccinations against it at an appropriate interval before the birth.

Ask these questions, even if the most recent baby is no longer alive.

**TT1. DO YOU HAVE A CARD OR OTHER DOCUMENT WITH YOUR OWN IMMUNIZATIONS LISTED?**

First, ask whether she has a vaccination card or other documentary evidence of vaccination. Ask to see this evidence and record that you have seen it by circling '1'. If a card is presented, use it to assist with answers to the following questions. If the woman says she has a card but does not/cannot show it to you, circle '2'.

If the card is not available ('2' or '3' circled in TT1), you must try to find out how long ago the last tetanus toxoid (TT) dose was received, and the total number of TT doses the mother has received in her lifetime. Use the probing questions, and record her answers in the spaces provided.

Women who do not have immunization cards may have difficulty identifying whether injections they received were tetanus toxoid injections.

**TT2. WHEN YOU WERE PREGNANT WITH YOUR LAST CHILD, DID YOU RECEIVE ANY INJECTION TO PREVENT HIM OR HER FROM GETTING TETANUS, THAT IS CONVULSIONS AFTER BIRTH (AN ANTI-TETANUS SHOT, AN INJECTION AT THE TOP OF THE ARM OR SHOULDER)?**

**SURVEY COORDINATORS:** ADAPT THE WORDING USED TO DESCRIBE A TETANUS TOXOID INJECTION, AND ANY ADDITIONAL PROBING QUESTIONS SPECIFYING THE SITE MOST FREQUENTLY USED (IN THE ARM OR SHOULDER).

Ask if she received any tetanus toxoid injection during her last pregnancy. Circle '1' for a 'Yes' response. If the answer is 'No' or 'DK', circle the code corresponding to the response and skip to TT5.

**TT3. *If yes:* HOW MANY TIMES DID YOU RECEIVE THIS ANTI-TETANUS INJECTION DURING YOUR LAST PREGNANCY?**

Enter the number of doses she reports in the space provided and continue to TT4. If she does not know, circle '98' and skip to TT5.

**TT4. *How many TT doses during last pregnancy were reported in TT3?***

Check the box corresponding to the number of TT doses during last pregnancy. If she reported at least two TT injections during her last pregnancy, go to the next module. If she reported fewer than two TT injections during her last pregnancy, continue with TT5.

**TT5. DID YOU RECEIVE ANY TETANUS TOXOID INJECTION AT ANY TIME BEFORE YOUR LAST PREGNANCY?**

Circle the code corresponding to her response. If she reports never having received any TT prior to her last pregnancy, or does not know, circle the code corresponding to the answer given and go to the next module. If 'Yes', continue with TT6.

**TT6. HOW MANY TIMES DID YOU RECEIVE IT?**

Ask about doses received during or before the next-to-last pregnancy or between pregnancies (at any time before the last pregnancy). Enter her response in the space provided, as in TT3.

**TT7. IN WHAT MONTH AND YEAR DID YOU RECEIVE THE LAST ANTI-TETANUS INJECTION BEFORE THAT LAST PREGNANCY?**

Ask the mother the month and year in which she received the last dose of TT before her last pregnancy. You will need to convert the month to a number, as done earlier. If she cannot supply the month, circle '98' for 'DK Month'. If she can provide the year, fill in the year in the space provided and skip to the next module. If she does not know the year, circle '9998' and continue to TT8.

**TT8. HOW MANY YEARS AGO DID YOU RECEIVE THE LAST ANTI-TETANUS INJECTION BEFORE THAT LAST PREGNANCY?**

Ask her to estimate how long ago she received the last dose of TT (the dose before her last pregnancy), and enter her response in years.

**MATERNAL AND NEWBORN HEALTH MODULE**

This module is to be administered to all women who have had a live birth in the 2 years preceding the date of the interview. Check Child Mortality module CM12 and record the name of the last-born child in the space provided. Use this child's name in the following questions, where indicated.

If the woman has not had any live births in the 2 years preceding the date of interview, leave this module blank and skip to the next module.

The purpose of this module is to obtain information on the health of the mother and newborn child. The module asks about health and care received by the mother during pregnancy and during labour and delivery. We also ask about the weight of the child and breastfeeding at the time of birth.

**MN1. IN THE FIRST TWO MONTHS AFTER YOUR LAST BIRTH (THE BIRTH OF *name*), DID YOU RECEIVE A VITAMIN A DOSE LIKE THIS?**

**SURVEY COORDINATORS:** IF MORE THAN ONE TYPE OF CAPSULE OR DISPENSER IS IN USE, INTERVIEWERS SHOULD BE GIVEN A SAMPLE OF EACH TYPE.

Vitamin A given to nursing mothers is transferred to her infant and can improve the health status of both mother and child. The recommended dose for post-partum women is 200,000 International Units (IU).

Show the 200,000 IU vitamin A capsule or dispenser you were given to help the respondent remember. Circle the code corresponding to the response.

**MN2. DID YOU SEE ANYONE FOR ANTENATAL CARE FOR THIS PREGNANCY? *If yes: WHOM DID YOU SEE? ANYONE ELSE?***

**SURVEY COORDINATORS:** THE CATEGORIES OF PROVIDERS MUST BE APPROPRIATELY ADAPTED AND TRANSLATED FOR THE LOCAL CONTEXT, BASED ON THE PRE-TEST. IT IS IMPORTANT TO MAINTAIN THE BROAD CATEGORIES SHOWN HERE. WE NEED TO BE ABLE TO DISTINGUISH BETWEEN ANTENATAL CARE PROVIDED BY HEALTH PROFESSIONALS AND CARE PROVIDED BY OTHERS. YOU MUST GIVE INTERVIEWERS DEFINITIONS OF EACH TYPE OF PROVIDER DURING TRAINING. CUSTOMIZE THE DESCRIPTIONS BELOW AS APPROPRIATE.

Antenatal care check-ups help to detect problems associated with pregnancy and delivery. All pregnant women should have routine check-ups. This question refers to any antenatal care received during the pregnancy – a check specifically for the pregnancy and not for other reasons.

This is a three-part question. First, ask if she saw anyone for antenatal care for this pregnancy. Then, if the woman answers 'Yes', you must ask whom she saw for the check-up. Finally, ask if she saw more than one person and record all persons seen. If you are unsure how to code a person mentioned, write the words used to describe the person in the space provided 'Other' and circle 'X'. If she saw no one for antenatal checks, circle 'Y' and skip to MN7.

Doctors, nurses, midwives and auxiliary nurse midwives are skilled health personnel who have midwifery skills to manage normal deliveries and diagnose or refer obstetric complications. 'Traditional birth attendants' may be trained or untrained.

If the woman gives the name of a health facility, ask her to tell you who she saw there.

**MN3. AS PART OF YOUR ANTENATAL CARE, WERE ANY OF THE FOLLOWING DONE AT LEAST ONCE?**

Ask about each procedure and record the response before asking about the next one. Circle '1' for 'Yes', or '2' for 'No' in each case. It may be necessary to explain some of the procedures. We want to know whether each of the procedures listed was performed during any of the antenatal check-ups during her last pregnancy. It does not matter if they were performed only once or more than once, or performed in the same visit or spread over several visits. The question asks for the following procedures:

**A. WERE YOU WEIGHED?**

**B. WAS YOUR BLOOD PRESSURE MEASURED?**

Blood pressure is measured with a medical instrument. A rubber cuff is wrapped around a person's upper arm and is inflated. While slowly releasing air from the cuff, the person measuring the blood pressure listens to the pulsing of the blood vessels with a stethoscope to determine the pressure.

**C. DID YOU GIVE A URINE SAMPLE?**

**D. DID YOU GIVE A BLOOD SAMPLE?**

A blood sample may be taken from the woman's fingertip or from a vein (usually from a vein near the elbow or on the wrist). The blood sample is used to test for various diseases, such as anaemia, parasite infestations or infectious diseases.

**MN4. DURING ANY OF THE ANTENATAL VISITS FOR THE PREGNANCY, WERE YOU GIVEN ANY INFORMATION OR COUNSELLED ABOUT AIDS OR THE AIDS VIRUS?**

We want to know if someone spoke with the respondent about AIDS or the AIDS virus during any of her antenatal care visits. This covers topics such as babies getting the AIDS virus, things that you can do to prevent getting the AIDS virus, or getting tests for the AIDS virus. It does not matter whether the topic was discussed only once or more than once, or discussed in one visit or over several visits.

**MN5. I DON'T WANT TO KNOW THE RESULTS, BUT WERE YOU TESTED FOR HIV/AIDS AS PART OF YOUR ANTENATAL CARE?**

Be clear to the respondent that you are not asking to know the results of the test, simply whether or not she was tested. Circle the code corresponding to the response. If the answer is 'No' or 'DK', skip to MN7.

**MN6. I DON'T WANT TO KNOW THE RESULTS, BUT DID YOU GET THE RESULTS OF THE TEST?**

Sometimes people are tested for the AIDS virus but are not told whether or not they have the virus, or do not go to get the results.

Be clear to the respondent that you are not asking to know the results of the test, simply whether or not she knows the results of the test. Circle the code corresponding to the response.

**MN7. WHO ASSISTED WITH THE DELIVERY OF YOUR LAST CHILD (*name*)? ANYONE ELSE?**

**SURVEY COORDINATORS:** CODING CATEGORIES SHOULD BE DEVELOPED LOCALLY AND REVISED BASED ON THE PRE-TEST. HOWEVER, THE BROAD CATEGORIES MUST BE MAINTAINED. AGAIN, WE NEED TO KNOW WHETHER THE PERSON WHO ASSISTED WITH THE DELIVERY WAS A HEALTH PROFESSIONAL OR ANOTHER PERSON.

When asking this question, be sure to use the name of the child you are referring to, so that there is no confusion.

Probe for the type of person who assisted with the delivery. If the woman is not sure of the status of the person who attended the delivery, for example, if she doesn't know whether the attendant was a midwife or a traditional birth attendant, probe further. Circle the codes corresponding to all persons assisting at the delivery. If you are unsure where to code a person mentioned, write it in the space provided 'Other' and circle 'X'. If no one attended the delivery, circle 'Y'.

**MN8. WHERE DID YOU GIVE BIRTH TO (*name*)?**

**SURVEY COORDINATORS:** CODING CATEGORIES SHOULD BE DEVELOPED LOCALLY AND REVISED BASED ON THE PRE-TEST. MAKE SURE TO MAINTAIN THE BROAD CATEGORIES, SO THAT YOU ARE ABLE TO DISTINGUISH BETWEEN PRIVATE AND PUBLIC HEALTH FACILITIES, OR OTHER PLACES.

The intent of this question is to identify births delivered in a health facility. If the woman gave birth in a hospital, health centre or clinic, write the name of the place in the space provided on the questionnaire. Ask whether the place is in the public (run by the government) or private sector. If the place is in the public sector, but is not one of the pre-coded choices, write the description in the space provided for 'Other public' and circle '26'. Similarly, if the place is in the private medical sector, but is not one of the pre-coded choices, write the description in the space provided for 'Other private medical' and circle '36'.

If the respondent answers that she delivered in another place not listed, write the description of the place in the space provided for 'Other' and circle '96'. Then write the name of the place in the space provided on the questionnaire 'Name of place' and tell your supervisor. Your supervisor will learn from other people in the community whether the place is public or private and then circle the code corresponding to the response. Places that are not health facilities, other than home, should also be coded as 'Other' and described.

**MN9. WHEN YOUR LAST CHILD (*name*) WAS BORN, WAS HE/SHE VERY LARGE, LARGER THAN AVERAGE, AVERAGE, SMALLER THAN AVERAGE, OR VERY SMALL?**

Low-birthweight babies are at higher risk of serious illness or death than other babies. Mothers are asked to give the baby's birthweight, but since some babies are not weighed at birth, a mother's subjective assessment of the baby's size at birth is important. When the information from women who answer these questions is analysed, we can obtain an indication of what women mean by these subjective categories. This information can provide an estimate of the average birthweight.



Read the entire question exactly as written before accepting an answer. This is the woman's own opinion about the size of her baby. Even if she knows the child's birthweight, tell her that you want to know her own idea of whether the baby was very large, larger than average, average, smaller than average or very small. If the respondent is unable to tell you, do not try to guess the answer based on the birthweight information or the appearance of the baby; circle '8' for 'DK'. In cases when the woman knows the birthweight of the baby and tells you the exact weight, do not use your judgement to influence her response in MN9. In other words, even if the woman tells you that her baby was smaller than average while the birthweight she is stating is quite large in your opinion, do not probe further to 'correct' the woman's perception of the size of the baby.

**MN10. WAS (*name*) WEIGHED AT BIRTH?**

Circle the code corresponding to the response given. If the baby was not weighed at birth or the mother doesn't know, skip to MN12.

**MN11. HOW MUCH DID (*name*) WEIGH?**

**SURVEY COORDINATORS:** IF POUNDS INSTEAD OF KILOGRAMS ARE USED, ADAPT RESPONSE CATEGORIES TO REFER TO POUNDS. IF POUNDS AS WELL AS KILOGRAMS ARE USED, ADAPT QUESTIONNAIRE TO INCLUDE SEPARATE CATEGORIES FOR RECORDING WEIGHT IN POUNDS. NEVER ALLOW ENTRY OF DIFFERENT UNITS OF WEIGHT IN THE SAME SPACES.

Ask the woman to show you her (or the child's) health card, if available. Record the birthweight in kilograms. If the weight is 'From card' or is recorded on another written document (such as a vaccination card, antenatal card or birth certificate), circle '1' and record the weight in the corresponding space. If the birthweight is reported by the mother, but no card or document is available, circle '2' for 'From recall' and record the weight in the corresponding space. Fill in the weight only once. Use zeros to fill in all digits if necessary. For example, if the woman tells you that the baby was 3.5 kilograms at birth; enter the information as '3.500'. Always record the birthweight from the card when possible.

If there is no card, and the mother cannot remember the exact weight, record her best estimate. Only circle '99998' for 'DK' if she absolutely cannot remember even the approximate weight.

**MN12. DID YOU EVER BREASTFEED (*name*)?**

Breastfeeding is important for a child's health and because it prevents pregnancy during the period when the mother is breastfeeding. For this question, it does not matter how long the respondent breastfed the child, only whether or not she ever gave the child the breast, even if the baby died very young.

Circle the code corresponding to the response given. If the response is 'No' (she never breastfed the child), go to the next module.

**MN13. HOW LONG AFTER BIRTH DID YOU FIRST PUT (*name*) TO THE BREAST?**

If the mother reports that the baby was put to the breast immediately after birth, circle '000'. Otherwise, record the time in completed hours or days.

If less than 1 hour, circle '1' for 'Hours' and record '00' in the space provided. For example, if the woman said she began breastfeeding within 10 minutes of the birth, circle '1' and record '00' hours.

If the mother began breastfeeding within 24 hours of the birth, circle '1' and record the number of hours that passed before the baby was put to the breast.

If she began breastfeeding 24 hours or more after the birth, circle '2' and record the number of days. Record in completed number of days. For example, if the baby was first breastfed 30 hours after delivery, circle '2' and record '01' days.

If the woman does not know or does not remember how long after birth she put the baby to the breast, circle '998'.

## MARRIAGE/UNION MODULE

This module is to be administered to all women aged 15-49 years (including women age 15 and age 49).

In the questionnaire and this manual, ‘marriage’ always refers to both formal and informal unions, such as living together. An informal union is one in which the man and woman live together for some time, intending to have a lasting relationship, but do not have a formal civil or religious ceremony.

For example, if a woman went to live with her boyfriend and his family and stayed there for several years, they would be considered ‘living together’, whether or not they have any children. On the other hand, if a woman has a boyfriend but has never lived with him, she would not be considered in a union. Casual sexual encounters are not included here.

**SURVEY COORDINATORS:** ADAPT THE TERMS AND CONCEPTS USED IN THIS MODULE TO YOUR COUNTRY. IN SOME COUNTRIES, ‘VISITING UNIONS’ MAY BE PREVALENT, FOR INSTANCE, WHERE THE MAN AND WOMAN LIVE IN DIFFERENT HOUSEHOLDS BUT STILL CONSIDER THEIR RELATIONSHIP A ‘UNION’. IN SOME OTHER CULTURES, ONLY ‘CIVIL MARRIAGES’ MAY BE CONSIDERED UNIONS, AND THOSE IN RELIGIOUS UNIONS MAY NOT CONSIDER THEMSELVES AS ‘MARRIED’ OR EVEN ‘IN UNION’. BE VERY CAREFUL IN THE ADAPTATION OF THE TERMS AND CONCEPTS IN THE MODULE. YOU MAY WANT TO ASK AN ADDITIONAL QUESTION TO INQUIRE ABOUT THE TYPE OF MARRIAGE/UNION. CONTACT THE MICS3 GLOBAL COORDINATOR IF YOU INTEND TO DO SO.

### MA1. ARE YOU CURRENTLY MARRIED OR LIVING TOGETHER WITH A MAN AS IF MARRIED?

The options here are currently married, living with a man, or not in union (the woman is neither married nor living with a man). Circle the code corresponding to the respondent’s status at the time of the interview. If the woman is currently neither married or in a union, skip to MA3.

### MA2. HOW OLD WAS YOUR HUSBAND/PARTNER ON HIS LAST BIRTHDAY?

If she knows the age of her current partner on his last birthday, enter his age in the space provided. If she does not know his age, circle ‘98’.

Skip to MA5, irrespective of the response.

### MA3. HAVE YOU EVER BEEN MARRIED OR LIVED TOGETHER WITH A MAN?

For women who are not currently married or living with a man, ask whether they have ever been married or lived with a man. Remember that ‘married’ refers to both formal and informal unions.

Circle the code corresponding to the response given. Notice that there are two different response categories for a ‘Yes’ response: ‘Yes, formerly married’ and ‘Yes, formerly lived with a man’. Be sure to make the distinction between the two categories. If the respondent just answers ‘Yes’, probe by asking, “**WERE YOU FORMERLY MARRIED OR DID YOU LIVE WITH A MAN?**” If she was formerly married and also reports living with a man, circle the code for ‘Yes, formerly married’.

If she was never married and never lived with a man circle ‘3’ for ‘No’ and go to the next module. Otherwise, continue on to MA4.

**MA4. WHAT IS YOUR MARITAL STATUS NOW: ARE YOU WIDOWED, DIVORCED OR SEPARATED?**

**SURVEY COORDINATORS:** CUSTOMIZE THIS QUESTION TO THE SITUATION IN YOUR COUNTRY AND/OR DESCRIBE TO THE INTERVIEWERS WHAT EACH OF THE CATEGORIES REFERS TO. FOR CASES OF INFORMAL UNIONS, ‘WIDOWED’ MEANS THAT THE LAST PARTNER THAT THE WOMAN HAD HAS DIED, AND ‘DIVORCED’ MEANS THAT SHE HAS SEPARATED FROM HER LAST PARTNER. IN SOME CULTURES, THE WORD ‘MARITAL’ IS NOT USED FOR INFORMAL UNIONS; DELETE THE WORD ‘MARITAL’ FROM THE QUESTION IF NECESSARY AND ASK “**WHAT IS YOUR STATUS NOW: ARE YOU WIDOWED, DIVORCED OR SEPARATED?**”

Circle the code corresponding to the response given. For a woman who is not currently married and not currently living with someone but who was formerly in a union, record her current marital status at the time of the interview. Since she was in a union at one time, but is not on the day you are interviewing her, she will be either widowed, divorced or separated.

You should use ‘widowed’ (a) for women who were married and their husband died, and (b) for women who were in an informal union and their partner died. ‘Divorced’ should be used for women who were married and whose marriage formally ended. ‘Separated’ should be used (a) for women who were married, but are no longer continuing the marriage with their husband, and (b) for women who were in an informal union and are no longer continuing the union with their partner.

**MA5. HAVE YOU BEEN MARRIED OR LIVED WITH A MAN ONLY ONCE OR MORE THAN ONCE?**

As with MA1, we are interested in formal marriages as well as informal arrangements. If a woman was married or lived with a man and then was widowed, divorced, or separated from her husband or partner and is now either married to or living with someone else, record ‘More than once’. If a woman is not currently married or in an informal union but was previously married or living with someone else two or more times, record ‘More than once’ by circling ‘2’. If she has married or lived with someone else only once, circle ‘1.’

Note that the question refers to periods of marriage or informal unions, and not to numbers of husbands or partners. If a woman was married to a man and divorced him, and then married the same person again, she should be considered as having married ‘More than once’. The same applies to informal unions with the same person.

**MA6. IN WHAT MONTH AND YEAR DID YOU FIRST MARRY OR START LIVING WITH A MAN AS IF MARRIED?**

If the respondent knows the date that she first married or started living with a man as if married, write it in the appropriate spaces for ‘Month’ and ‘Year’. You will need to convert the month into numbers, as instructed earlier. For example, January is ‘01,’ February is ‘02,’ March is ‘03,’ etc.

If she does not recall the date that she first married or started living with a man as if married, ask whether she has any documentation that might give the date. If she does not know or have documentation of the month, circle ‘98’ for ‘DK month’ and ask her the year that she first married or started living with a man as if married. Enter the year in the space provided. Once again, if she does not know and does not have documentation of the year that she first married or started living with a man as if married, circle ‘9998’ for ‘DK year’.

**MA7. *Check MA6.***

If both the month and year are known, go to the next module. If either the month or the year is not known, continue to MA8.

**MA8. HOW OLD WERE YOU WHEN YOU STARTED LIVING WITH YOUR FIRST HUSBAND/PARTNER?**

As with other age questions, if she does not know, probe. For instance, ask how old she was when her first child was born and then ask how long before or after giving birth she began living with her first husband or partner. Do not leave this question blank.

**CONTRACEPTION MODULE**

The module should be administered to all women aged 15-49 years (including women age 15 and age 49). These questions and the ones in the HIV/AIDS module deal with private behaviour and attitudes. These questions are designed to collect the basic information needed to estimate contraceptive prevalence rates and types of methods used.

**SURVEY COORDINATORS:** EACH COUNTRY COORDINATOR (AND SURVEY ADVISORY GROUP) WILL NEED TO MAKE DECISIONS ABOUT HOW TO INTRODUCE THESE QUESTIONS. A SUITABLE INTRODUCTION SHOULD BE PROVIDED TO FIELDWORKERS. INTERVIEWERS NEED TO BE ESPECIALLY SKILLED IN BRINGING UP THESE SENSITIVE TOPICS. AS NOTED EARLIER, INTERVIEWERS SHOULD ALWAYS BE FEMALE. MALE INTERVIEWERS SHOULD NOT BE EMPLOYED TO ASK WOMEN THESE QUESTIONS.

**SURVEY COORDINATORS:** SOME COUNTRIES MAY WANT TO ASK THESE QUESTIONS ON CONTRACEPTION ONLY TO WOMEN WHO HAVE EVER BEEN MARRIED. IN SUCH CASES, YOU MAY WANT TO INTRODUCE A FILTER QUESTION BEFORE CP1, WHERE THE INTERVIEWER MARKS WHETHER THE WOMAN HAS EVER BEEN MARRIED, AND SKIPS TO THE NEXT MODULE IF THE ANSWER IS 'NO'.

If present, male members of field teams (such as supervisors, editors and drivers) should be asked to leave the interview area. Even in cases where women are being interviewed alone, they will be reluctant to answer these questions if they sense that you are part of a team that includes males and that her responses may be shared with the males in the team.

**CP1. I WOULD LIKE TO TALK WITH YOU ABOUT ANOTHER SUBJECT – FAMILY PLANNING – AND YOUR REPRODUCTIVE HEALTH. ARE YOU PREGNANT NOW?**

This question is important because later questions in this module will not need to be asked of pregnant women. A woman who is pregnant does not need to use contraception!

Circle the code corresponding to the response given. If she is pregnant, circle '1' and go to the next module. If the woman is unsure or does not know for certain if she is pregnant, circle '8' for 'Unsure or DK'.

**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?**

Circle the code corresponding to the response given. If the answer is 'No', go to the next module.

**CP3. WHICH METHOD ARE YOU USING?**

Circle the code corresponding to the response given. Do not prompt the woman. If she mentions more than one method, circle the code for each method that is currently being used. If she mentions a method you do not know of, write her description in the space provided in 'Other' and circle 'X'.

**SURVEY COORDINATORS:** YOU MAY WANT TO INVITE AN EXPERT ON CONTRACEPTION TO THE TRAINING SESSION OF THE INTERVIEWERS AND HAVE EACH OF THE METHODS DESCRIBED/EXPLAINED.

Since methods are effective for different lengths of time, you may have difficulty determining if a particular respondent is currently using a method. Current users of the pill should be taking pills daily. Methods such as condom use, vaginal methods and withdrawal are used with each act of

intercourse, so current users of these methods will have used them during the most recent acts of intercourse.

Other methods provide ongoing protection without daily or regular action by the woman. Contraceptive injections may be administered 2 to 6 months earlier and still provide protection. Implants provide protection for up to 5 years or until removed. An IUD protects against pregnancy until it is removed or expelled.

If needed, consider the last 1 month as 'current use'.

If the woman has been sterilized, you will circle 'A' for 'Female sterilization' as the current method. If the woman's current partner has been sterilized, you will circle 'B' for 'Male sterilization' as the current method. However, if she is no longer married to (or living with) a former partner who had a vasectomy, this should not be noted as the current method. Lactational amenorrhoea method (LAM) should be circled only if the woman explicitly states that she is breastfeeding for contraceptive purposes or that she believes that she is being protected from the risk of pregnancy because she is breastfeeding.

**HIV/AIDS MODULE**

This module is to be administered to all women aged 15-49 years (including woman age 15 and age 49). The purpose of this module is to obtain information to help programme managers and policy makers plan more effective programmes to prevent HIV infection. The questions assess knowledge, attitudes and behaviour related to AIDS transmission, prevention and testing for the virus that causes AIDS.

First, questions are asked to estimate the respondent's basic knowledge about HIV transmission and AIDS.

**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?**

This question serves as an introduction and allows us to verify whether a respondent has heard of AIDS. If there is a local term for AIDS, use the local term in addition to 'AIDS'.

If a respondent has never heard of the HIV virus or AIDS, go to the next module.

**SURVEY COORDINATORS:** IF THIS MODULE IS THE LAST MODULE IN YOUR QUESTIONNAIRE, AS IT IS IN THE MODEL QUESTIONNAIRE, THE SKIP INSTRUCTION SHOULD BE CHANGED TO: 'END THE INTERVIEW'. FIND EXPLANATIONS AT THE END OF THIS SECTION ON WHAT INTERVIEWERS SHOULD DO AT THE END OF THE INTERVIEW.

The following questions ask the respondent about specific ways to avoid HIV transmission. They focus on programmatically important ways to avoid HIV – by limiting the number of partners and by using condoms. They also probe into misconceptions concerning HIV transmission, through mosquito bites or sharing food, for example.

For questions HA2-HA8, circle the code for the response given. If the respondent cannot provide a 'Yes' or 'No' answer, circle '8' for 'DK'. Do not prompt the respondent or indicate the 'correct' answer in any way.

**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?****HA3. CAN PEOPLE GET INFECTED WITH THE AIDS VIRUS BECAUSE OF WITCHCRAFT OR OTHER SUPERNATURAL MEANS?**

**SURVEY COORDINATORS:** ADAPT THE TERMS 'WITCHCRAFT' AND 'SUPERNATURAL MEANS' IN THIS QUESTION TO THOSE USED LOCALLY.

**HA4. CAN PEOPLE REDUCE THEIR CHANCE OF GETTING THE AIDS VIRUS BY USING A CONDOM EVERY TIME THEY HAVE SEX?**



**HA5. CAN PEOPLE GET THE AIDS VIRUS FROM MOSQUITO BITES?**

**HA6. CAN PEOPLE REDUCE THEIR CHANCE OF GETTING INFECTED WITH THE AIDS VIRUS BY NOT HAVING SEX AT ALL?**

**HA7. CAN PEOPLE GET THE AIDS VIRUS BY SHARING FOOD WITH A PERSON WHO HAS AIDS?**

**HA7A. CAN PEOPLE GET HIV BY GETTING INJECTIONS WITH A NEEDLE THAT WAS ALREADY USED BY SOMEONE ELSE?**

**SURVEY COORDINATORS:** QUESTION HA7A IS ADDED TO THE MODULE FOR USE IN COUNTRIES WHERE INJECTING DRUG USE IS A COMMON MEANS OF HIV TRANSMISSION. IF THIS IS NOT THE CASE IN YOUR COUNTRY, YOU MAY DELETE THIS QUESTION.

**HA8. IS IT POSSIBLE FOR A HEALTHY LOOKING PERSON TO HAVE THE AIDS VIRUS?**

**HA9. CAN THE AIDS VIRUS BE TRANSMITTED FROM A MOTHER TO A BABY?**

An understanding of more in-depth AIDS-related knowledge is obtained with this question, which aims to determine whether the woman knows that a mother who has AIDS can pass on the disease to her baby.

Ask each item one at a time and circle the code for the response given. The items ask whether the respondent thinks that a mother with AIDS can transfer the disease to her baby '**During pregnancy**', '**During delivery**' or '**By breastfeeding**' him/her. Circle '1' for 'Yes' and '2' for 'No' for each of the items. If the woman does not know the answer or is unsure, circle '8'.

The following four questions are meant to ascertain the respondent's personal opinion and attitude towards people with AIDS. We present a situation to the respondent, asking her to imagine a particular scenario. Then we ask her to tell us how she would react to the situation.

Circle the code for the response given. Once again, do not prompt the respondent or indicate the 'correct' answer in any way. If a respondent says she doesn't know, is unsure, or that it depends, circle '8' for 'DK/not sure/depends'.

**HA10. IF A FEMALE TEACHER HAS THE AIDS VIRUS BUT IS NOT SICK, SHOULD SHE BE ALLOWED TO CONTINUE TEACHING IN SCHOOL?**

If a school learns that a female teacher has the AIDS virus, but she is not sick, how should the school handle this information? Should the teacher be allowed to continue teaching at the school, or should she be removed from her teaching position? We are not asking about whether or not a teacher has actually been asked to leave a teaching position, but rather, what is the respondent's opinion about how such a case should be handled; should the teacher be allowed to continue teaching?

**HA11. WOULD YOU BUY FRESH VEGETABLES FROM A SHOPKEEPER OR VENDOR IF YOU KNEW THAT THIS PERSON HAD THE AIDS VIRUS?**

**HA12. IF A MEMBER OF YOUR FAMILY BECAME INFECTED WITH THE AIDS VIRUS, WOULD YOU WANT IT TO REMAIN A SECRET?**

**HA13. IF A MEMBER OF YOUR FAMILY BECAME SICK WITH THE AIDS VIRUS, WOULD YOU BE WILLING TO CARE FOR HIM OR HER IN YOUR HOUSEHOLD?**

The following questions aim to obtain information about the level of ‘unmet need’ for HIV-testing. They first ask about experience of HIV testing. Voluntary testing and counselling are now encouraged, in the belief that if a person knows his or her status, he or she is more likely to adopt behaviours to prevent contracting the virus or (if positive) transmitting it. Many of those who get tested do not return to learn the results of the test, but the proportion of those who return should rise as the quality of pre-test counselling improves. It is important to obtain an estimate of the number of those tested who return to learn the results, in order to monitor this proxy indicator of the quality of available counselling and the level of demand for such services.

**HA14. *Check MN5: Tested for HIV during antenatal care?***

Check the respondent’s answer to MN5 in the Maternal and Newborn Health module regarding whether or not she was tested for HIV during her antenatal care visits. If the respondent has already answered that she was tested during antenatal care visits, you do not need to ask her questions HA15-HA18. In such cases, check the box marked ‘Yes’ and go to HA18A. If her answer was ‘No’, check the corresponding box and 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?**

Ask the respondent if she was tested for the HIV. Be clear to the respondent that you are not asking to know the results of the test. Circle the code for the response given. If her answer is ‘No’, skip to HA18.

**HA16. I DO NOT WANT YOU TO TELL ME THE RESULTS OF THE TEST, BUT HAVE YOU BEEN TOLD THE RESULTS?**

Sometimes people are tested for the AIDS virus but are not told whether or not they have the virus, or do not go to get the results.

It is important that you do not attempt to find out the HIV status of any respondent who has been tested, or imply that you have any interest in knowing her HIV status. Ask the question, ensuring that the respondent knows that you are not interested in learning the results of any test she may have undergone. Circle the code corresponding to her response.

**HA17. DID YOU, YOURSELF, ASK FOR THE TEST, WAS IT OFFERED TO YOU AND YOU ACCEPTED, OR WAS IT REQUIRED?**

If the respondent has been tested for HIV, we want to know whose idea it was to get the test. There are three options, so read the entire question before expecting an answer. Perhaps the respondent asked to be tested for HIV. Perhaps a health worker offered to test the respondent and the respondent accepted being tested. Perhaps the test was required for some reason.

Circle the code corresponding to the response. If the respondent got tested because her partner asked her to do so, you would circle '1', corresponding to 'Asked for the test', because she got the test of her own volition, in response to someone asking her to do so. This would be the case if a girlfriend or boyfriend or spouse or other concerned person personally asked them to get tested. If the respondent was offered the test during a normal health centre visit, for instance, and the respondent accepted the test, this would be coded as '2', 'Offered and accepted'. By 'required', we mean formally required. For example, an employer may require their employees to get tested for the AIDS virus. If so, you would circle '3' for 'Required'. Also, some countries require applicants applying for work permits or applicants applying for visas to show proof of an AIDS test.

**HA18. AT THIS TIME, DO YOU KNOW OF A PLACE WHERE YOU CAN GO TO GET SUCH A TEST TO SEE IF YOU HAVE THE AIDS VIRUS?**

**HA18A. *If tested for HIV during antenatal care:* OTHER THAN AT THE ANTENATAL CLINIC, DO YOU KNOW OF A PLACE WHERE YOU CAN GO TO GET A TEST TO SEE IF YOU HAVE THE AIDS VIRUS?**

Note that some women will be asked HA18 and others will be asked HA18A, but the same set of response codes will be used to indicate the woman's response. Specifically, women who have not been tested for HIV during antenatal care ('No' marked in HA14) or any other time ('2' circled in HA15) are asked HA18. For women who have been tested for HIV during antenatal care, you should ask HA18A.

Even if the respondent has been tested for HIV during antenatal care, we still ask this question, since the original testing place may no longer be accessible to the respondent.

Circle the code corresponding to the response.

When you have finished asking HA18 or HA18A, thank the woman. Check whether she is the mother or primary caretaker of any children that live with her and that are under the age of five by checking the Household Questionnaire, column HL8, for the woman's line number. If so, start interviewing her with the Questionnaire for Children Under Five for those children.

If this woman is not the mother or primary caretaker of any children under five in the household, check if there is another eligible woman residing in the same household. If so, go on to administer the Questionnaire for Individual Women to the next eligible woman. Continue until you have completed questionnaires for all eligible women and children in the household.

## ADDITIONAL MODULES FOR THE QUESTIONNAIRE FOR INDIVIDUAL WOMEN

**SURVEY COORDINATORS:** ADDITIONAL MODULES SHOULD BE ADDED TO THE QUESTIONNAIRE FOR INDIVIDUAL WOMEN IN COUNTRIES WHERE THEY ARE APPLICABLE AND APPROPRIATE. IN SOME CASES, ADDITIONAL MODULES SHOULD REPLACE A CORE MODULE IN THE QUESTIONNAIRE; IN OTHERS, AN ADDITIONAL MODULE MAY SIMPLY BE ADDED TO THE QUESTIONNAIRE, AS INDICATED FOR EACH OF THE MODULES ON THE FOLLOWING PAGES. CHECK CHAPTER 3 AND APPENDIX TWO TO SEE WHERE EACH OF THE ADDITIONAL MODULES SHOULD BE PLACED.

### MATERNAL AND NEWBORN HEALTH MODULE (WITH INTERMITTENT PREVENTIVE TREATMENT FOR PREGNANT WOMEN)

**SURVEY COORDINATORS:** IN MALARIA-AFFECTED COUNTRIES, THIS MODULE SHOULD REPLACE THE ‘MATERNAL AND NEWBORN HEALTH’ MODULE IN THE MODEL QUESTIONNAIRE FOR INDIVIDUAL WOMEN.

THIS ADDITIONAL MODULE DIFFERS FROM THE CORE MODULE ON ‘MATERNAL AND NEWBORN HEALTH’ IN THAT IT INCLUDES FOUR ADDITIONAL QUESTIONS. HOWEVER, THE INCLUSION OF THESE FOUR NEW QUESTIONS (MN6A-MN6D) ALSO MEANS THAT A NUMBER OF SKIP INSTRUCTIONS IN THE MODULE ARE ALSO DIFFERENT. HERE, ONLY INSTRUCTIONS ON THE ABOVE-MENTIONED FOUR QUESTIONS ARE PROVIDED. COPY THE INSTRUCTIONS COMMON TO BOTH THE CORE MODULE AND THE ADDITIONAL MODULE HERE, AS INDICATED BELOW. HOWEVER, MAKE SURE TO CHANGE INSTRUCTIONS FOR THE SKIPS IN THE INSTRUCTIONS COPIED FROM THOSE FOR THE CORE MODULE.

**SURVEY COORDINATORS:** COPY ALL INSTRUCTIONS FROM THOSE FOR THE CORE ‘MATERNAL AND NEWBORN HEALTH MODULE’ HERE, FROM THE BEGINNING OF THE SECTION UP TO AND INCLUDING THOSE FOR QUESTION MN6.

CHANGE THE FOLLOWING IN THE INSTRUCTIONS:

A ‘**None**’ (‘Y’) RESPONSE SHOULD NOW SKIP TO MN6A, INSTEAD OF MN7.

‘**No**’ (‘2’) AND ‘**DK**’ (‘8’) RESPONSES IN MN5 SHOULD NOW SKIP TO MN6A, INSTEAD OF MN7.

#### MN6A. DURING THIS PREGNANCY, DID YOU TAKE ANY MEDICINE IN ORDER TO PREVENT YOU FROM GETTING MALARIA?

During pregnancy, a woman’s immune system is weakened, making her more susceptible to malaria infection than women who are not pregnant. Malaria in pregnant women can cause several complications that are dangerous to the mother and unborn child, including severe malaria and death, maternal anaemia and low birthweight in newborns. The World Health Organization recommends that pregnant women in malaria-endemic areas take a treatment dose of SP/Fansidar (usually three tablets taken all at once) as a preventive measure, once a month during the third trimester of pregnancy (months 7, 8 and 9 of the pregnancy). Such preventive treatment with SP/Fansidar, usually given during antenatal visits, is known as intermittent preventive treatment (IPT). The generic name for SP/Fansidar is sulfadoxine-pyrimethamine, and other brand names can exist. Other antimalarial medicines can be used as a preventive measure as well.

Circle the code corresponding to the answer given. Medicines to prevent malaria include only those medicines that a woman takes during pregnancy when she does not already have malaria. If the respondent took medicines during pregnancy when she did not already have malaria, continue to the next question.

If the respondent did not take any medicine to prevent her from getting malaria, circle '2'. If she does not know whether she received treatment to prevent malaria during her last pregnancy, circle '8' for 'DK'. In both cases, skip to MN7.

If the respondent says that she had malaria or a fever during the pregnancy and was given medicines to treat the malaria or fever, this would not be considered preventive treatment. In such a case, circle '2' for 'No' and skip to MN7.

**MN6B. WHICH MEDICINES DID YOU TAKE TO PREVENT MALARIA?**

Circle the codes corresponding to all medicines reported taken to prevent malaria during the pregnancy.

**SURVEY COORDINATORS:** PROVIDE INTERVIEWERS WITH PICTURES OR PACKAGES OF TYPICAL ANTIMALARIAL MEDICINES USED IN THE COUNTRY, TO BE SHOWN TO RESPONDENTS DURING THE INTERVIEWS.

If the respondent cannot remember the name of the medicine taken, ask her to show you the package it came in. If she doesn't have the package, show her typical antimalarials and ask if she took any of them. If she mentions that during an antenatal visit she was given three tablets to take all at the same time in order to prevent malaria, circle 'A' on the assumption that she took SP/Fansidar.

If she took another medicine, write the name in the space provided in 'Other', and circle 'X'. If she doesn't know the name of the medicine she took to prevent malaria, circle 'Z'.

**MN6C. *Check MN6B for medicine taken.***

This filter is used to skip the next question if the woman did not take SP/Fansidar during her last pregnancy. If SP/Fansidar was taken (MN6B), continue with the next question. If SP/Fansidar was not taken, skip to question MN7.

**MN6C. HOW MANY TIMES DID YOU TAKE SP/FANSIDAR DURING THIS PREGNANCY TO PREVENT MALARIA?**

Here we are asking about preventive doses of SP/Fansidar, not curative doses given if she had a fever. Therefore, in this question, we want to know only about preventive doses.

Record the number of times she took SP/Fansidar during pregnancy in the space provided. If the woman visited an antenatal clinic or other facility because she was sick with fever and was given SP/Fansidar, do not count this in the number of times she took SP/Fansidar during the pregnancy. Count only the 'doses' taken (three tablets taken at the same time = '1 dose') when the woman was pregnant and did not have a fever.

**SURVEY COORDINATORS:** COPY ALL INSTRUCTIONS FROM THOSE FOR THE CORE 'MATERNAL AND NEWBORN HEALTH MODULE' HERE, FROM MN7 TO THE END OF THE SECTION.

**MARRIAGE/UNION  
(WITH POLYGyny)**

**SURVEY COORDINATORS:** IN COUNTRIES WHERE POLYGyny IS PRACTISED, THIS MODULE SHOULD REPLACE THE 'MARRIAGE/UNION' MODULE IN THE MODEL QUESTIONNAIRE FOR INDIVIDUAL WOMEN.

THIS ADDITIONAL MODULE DIFFERS FROM THE CORE MODULE ON 'MARRIAGE/UNION' BY INCLUDING TWO ADDITIONAL QUESTIONS (MA2A AND MA2B). THE INCLUSION OF THESE TWO QUESTIONS ALSO MEANS THAT THE SKIP INSTRUCTIONS IN MA2A, TO MA5, ARE DELETED.

HERE, ONLY INSTRUCTIONS ON THE ABOVE-MENTIONED TWO QUESTIONS ARE PROVIDED. COPY THE INSTRUCTIONS COMMON TO BOTH THE CORE MODULE AND THE ADDITIONAL MODULE HERE, AS INDICATED BELOW. DELETE THE SKIP INSTRUCTIONS MENTIONED IN MA2.

**SURVEY COORDINATORS:** COPY INSTRUCTIONS FROM THOSE FOR THE CORE 'MARRIAGE/UNION MODULE' HERE, FROM THE BEGINNING OF THE SECTION UP TO AND INCLUDING THOSE FOR QUESTION MN2.

IN THE INSTRUCTIONS FOR MA2, DELETE MENTION OF SKIP TO MA5.

**MA2A. BESIDES YOURSELF, DOES YOUR HUSBAND/PARTNER HAVE ANY OTHER WIVES?**

In this question, we are interested in the wives and/or live-in partners that the respondent's husband/partner has. Circle the code corresponding to the answer given. If 'No', skip to MA5.

**MA2B. HOW MANY OTHER WIVES DOES HE HAVE?**

Similar to the previous question, we are interested here in the number of wives and/or live-in partners the respondent's husband has. Enter the number of other wives in the space provided. Use leading zeros if necessary. If the respondent doesn't know, circle '98'. Then skip to MA5.

**SURVEY COORDINATORS:** COPY ALL INSTRUCTIONS FROM THOSE FOR THE CORE 'MARRIAGE/UNION' MODULE HERE, FROM MA3 TO THE END OF THE SECTION.

## FEMALE GENITAL MUTILATION/CUTTING MODULE

**SURVEY COORDINATORS:** THIS MODULE SHOULD BE USED ONLY IN COUNTRIES IN WHICH FEMALE GENITAL MUTILATION/CUTTING IS PRACTISED. THE MODULE SHOULD BE ADDED TO THE MODEL QUESTIONNAIRE FOR INDIVIDUAL WOMEN. CHECK CHAPTER 3 AND APPENDIX TWO TO SEE EXACTLY WHERE IT SHOULD BE PLACED IN THE QUESTIONNAIRE.

Female genital mutilation/cutting (FGM/C), or female circumcision, has been practised for hundreds of years by some population groups living in Africa and along the southern edge of the Arabian Peninsula. It involves total or partial removal of the external female genitalia. The operation is performed on young girls, usually before they reach the age of puberty. It is frequently performed, particularly in rural areas, without anaesthesia by traditional midwives and/or circumcision practitioners.

The World Health Organization has identified four types of FGM/C:

- Clitoridectomy: the removal of all or part of the clitoris
- Excision: the removal of all or part of both the clitoris and the labia minora
- Infibulation: the removal of all or part of the clitoris, labia minora and labia majora, followed by the stitching together of the edges of the wound so as to form a hood over the urethra and vagina leaving only a small posterior opening to allow the passage of urine and menstrual fluid
- Other manipulations of the labia: usually cutting without removal of any flesh.

After determining if the respondent has ever heard of FGM/C in questions FG1 and FG2, the module contains questions to determine if the respondent was circumcised and, if so, the type of circumcision and the type of practitioner who performed the operation (FG3 to FG7). Questions related to the type of circumcision are only intended to differentiate the most radical type of circumcision, 'Infibulation', and the least radical, 'Other manipulations of the labia', from other forms of mutilation ('Clitoridectomy' and 'Excision'). Results from previous surveys have indicated that respondents could not provide enough detailed information to make a more precise clarification.

### FG1. HAVE YOU EVER HEARD OF FEMALE CIRCUMCISION?

Circle the code corresponding to the answer given. Skip to FG3 if 'Yes'. Otherwise, continue to the next question.

### FG2. IN A NUMBER OF COUNTRIES, THERE IS A PRACTICE IN WHICH A GIRL MAY HAVE PART OF HER GENITALS CUT. HAVE YOU EVER HEARD ABOUT THIS PRACTICE?

Circle the code corresponding to the answer given. If 'No', go to the next module.

### FG3. HAVE YOU YOURSELF EVER BEEN CIRCUMCISED?

Circle the code corresponding to the answer given. If 'No', skip to 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?

Circle the code corresponding to the answer given. Skip to FG6 if 'Yes' ('1').

### FG5. WAS THE GENITAL AREA JUST NICKED WITHOUT REMOVING ANY FLESH?

Circle the code corresponding to the answer given.

**FG6. WAS THE GENITAL AREA SEWN CLOSED (OR ‘SEALED’)?**

Circle the code corresponding to the answer given.

**FG7. WHO CIRCUMCISED YOU?**

**SURVEY COORDINATORS:** YOU SHOULD ADAPT THE CODING CATEGORIES LOCALLY AND REVISE THEM BASED ON INFORMATION COLLECTED BEFORE THE SURVEY AND ON THE PRE-TEST. HOWEVER THE BROAD CATEGORIES MUST BE MAINTAINED. WE ARE ONLY INTERESTED IN THE DETAILED CODING CATEGORIES FOR ‘HEALTH PROFESSIONALS’ IN COUNTRIES WHERE HEALTH PROFESSIONALS PERFORM A LARGE NUMBER OF CIRCUMCISIONS.

First ask if she knows who circumcised her. Probe to find out the type of person who performed the operation. Circle the code corresponding to the answer given. If she knows it was a traditional person but you are unsure how to code the person mentioned, write the words used to describe the person in the space provided for ‘Other traditional’ and circle ‘16’. If she knows it was a health professional but you are unsure how to code the person mentioned, write the words used to describe the person in the space provided for ‘Other health professional’ and circle ‘26’. If she does not know who circumcised her, circle ‘98’.

**FG8. The following questions apply only to women who have at least one living daughter. Check CM4 and CM6, Child Mortality module. Woman has living daughter?**

Check CM4 and CM6 of the Child Mortality module. If the respondent has a daughter who is now alive, even if the daughter does not live with the respondent, check the box marked ‘Yes’ and continue to the next question. If the woman does not have a living daughter, check the box marked ‘No’ and skip to FG16.

At this point, you will start the second set of questions, which are related to the respondent’s daughter(s) (FG8-FG15). These allow for the tracking of intergenerational changes in the practice of FGM/C. If (at least one of) the respondent’s daughter(s) is circumcised, questions that focus on the most recently circumcised daughter are asked about the type of circumcision, the age at circumcision, and the type of practitioner who performed the operation.

**FG9. HAVE ANY OF YOUR DAUGHTERS BEEN CIRCUMCISED? IF YES, HOW MANY?**

First ask if (any of) the respondent’s daughter(s) has been circumcised. If ‘Yes’, enter the number in the space provided. If no daughters have been circumcised, circle ‘00’ and skip to FG16.

**FG10. TO WHICH OF YOUR DAUGHTERS DID THIS HAPPEN MOST RECENTLY?**

Record the daughter’s name in the space provided.

**FG11. NOW I WOULD LIKE TO ASK YOU WHAT WAS DONE TO (*name* [from FG10]) AT THAT TIME. WAS ANY FLESH REMOVED FROM THE GENITAL AREA?**

Circle the code corresponding to the answer given. If ‘Yes’, skip to FG13. Otherwise, continue to the next question.

**FG12. WAS THE GENITAL AREA JUST NICKED WITHOUT REMOVING ANY FLESH?**

Circle the code corresponding to the answer given.



**FG13. WAS THE GENITAL AREA SEWN CLOSED (OR ‘SEALED’)?**

Circle the code corresponding to the answer given.

**FG14. HOW OLD WAS (*name* [from FG10] ) WHEN THIS OCCURRED?**

Enter the daughter’s age at the time she was circumcised in the space provided. If the respondent does not know how old her daughter was at circumcision, probe to get an estimate. If she is still unable to provide her daughter’s age at circumcision, circle ‘98’.

**FG15. WHO DID THE CIRCUMCISION?**

**SURVEY COORDINATORS:** YOU SHOULD ADAPT THE CODING CATEGORIES LOCALLY AND REVISE THEM BASED ON INFORMATION COLLECTED BEFORE THE SURVEY AND ON THE PRE-TEST. HOWEVER, THE BROAD CATEGORIES MUST BE MAINTAINED. WE ARE ONLY INTERESTED IN THE DETAILED CODING CATEGORIES FOR ‘HEALTH PROFESSIONAL’ IN COUNTRIES WHERE HEALTH PROFESSIONALS PERFORM A LARGE NUMBER OF CIRCUMCISIONS.

First ask if she knows who circumcised her daughter. Probe to find out the type of person who performed the operation. Circle the code corresponding to the answer given. If she knows it was a traditional person but you are unsure how to code the person mentioned, write the words used to describe the person in the space provided for ‘Other traditional’ and circle ‘16’. If she knows it was a health professional but you are unsure how to code the person mentioned, write the words used to describe the person in the space provided for ‘Other health professional’ and circle ‘26’. If she does not know who circumcised her daughter, circle ‘98’.

**FG16. DO YOU THINK THIS PRACTICE SHOULD BE CONTINUED OR SHOULD IT BE DISCONTINUED?**

The last question in the module aims to elicit the respondent’s opinion of FGM/C. The question is asked of all women who have ever heard of FGM/C (FG1=1 or FG2=2). Circle the code corresponding to the answer given.

## SEXUAL BEHAVIOUR

**SURVEY COORDINATORS:** THIS MODULE SHOULD BE INCLUDED IN COUNTRIES WHERE HIV/AIDS IS A POTENTIAL CONCERN. IT IS INTENDED TO MEASURE BEHAVIOURS AMONG YOUNG PEOPLE THAT PUTS THEM AT INCREASED RISK OF HIV INFECTION. CHECK CHAPTER 3 AND APPENDIX TWO TO SEE WHERE THE MODULE SHOULD BE PLACED IN THE QUESTIONNAIRE. IT IS VERY IMPORTANT THAT THE MODULE IS PLACED AFTER THE CONTRACEPTION MODULE SO RAPPORT IS BUILT, BUT IT SHOULD BE PLACED BEFORE THE HIV/AIDS MODULE TO AVOID BIASING RESPONSES.

The purpose of this module is to obtain information to help programme managers and policy makers plan more effective family planning/reproductive health programmes. This module is to be administered to all women aged 15-24 (including women age 15 and age 24). **Before continuing, ensure that no one else, besides you and the respondent, is present for the interview. If the respondent's privacy cannot be ensured, STOP HERE and do not ask the questions in this module.**

These questions may be embarrassing for some respondents; therefore, ask them in a matter-of-fact voice and do not make the respondent feel embarrassed by your own behaviour. A common reaction for people who are embarrassed is to giggle or laugh. If you laugh in return or act as if you are embarrassed too, it will make the respondent think that the questions are not serious. Make sure you maintain a serious attitude.

**SB0. Check WM9: Age of respondent is between 15 and 24?**

Check the age of the respondent recorded in WM9. If the respondent is aged 25-49, she is not eligible for this module; check the first box, and go to the next module. If the respondent is aged 15-24 (including age 15 and age 24), check the second box, and continue to the next question, SB1.

**SB1. NOW I NEED TO ASK YOU SOME QUESTIONS ABOUT SEXUAL ACTIVITY IN ORDER TO GAIN A BETTER UNDERSTANDING OF SOME FAMILY LIFE ISSUES. THE INFORMATION YOU SUPPLY WILL REMAIN STRICTLY CONFIDENTIAL. HOW OLD WERE YOU WHEN YOU FIRST HAD SEXUAL INTERCOURSE (IF EVER)?**

It is very important that you read the first sentence, and to emphasize to the respondent that her responses will remain strictly confidential. If necessary, explain to her once again that the information she shares with you will only be used for statistical purposes; that her name will never be revealed; and her responses will not be shared with others in the community or elsewhere.

The age we are asking about is the age of the respondent the very first time she had sexual intercourse. It does not matter whether the woman continued to have a relationship with this person. We are not asking about the first time with her current partner, but rather, the first experience of sexual intercourse in her entire life.

There are two ways of asking this question and you will choose which one to ask depending on the particular situation of the respondent. If the respondent has children or is married or living with someone, you will ask **"HOW OLD WERE YOU WHEN YOU FIRST HAD SEXUAL INTERCOURSE?"** If the respondent has not had any children, has never been in a union, you can ask **"HOW OLD WERE YOU WHEN YOU FIRST HAD SEXUAL INTERCOURSE, IF EVER?"**

If the response is 'Never had intercourse', circle '00' and skip to the next module. Otherwise, enter the age in years on the line provided. If she was less than 10 years old, use a zero to fill in the first space.

If the respondent tells you that her first time was when she started living with her first husband, record her response by circling '95'. You will have collected this information in the Marriage/Union module. If the respondent says that her first time was with her first husband, but it was before they began living together, probe for the respondent's age at the time.

If the respondent says she does not know how old she was when she first had intercourse, probe by relating it to how old she was when she first married or had her first child. However, when doing this probing, be certain not to assume that the first time she had sex was at the time of her first marriage. If she has never married and/or never had children, you can probe by relating the timing of the first intercourse to whether she was going to school at the time, or to places that she might have lived. The respondent should feel comfortable in taking her time to think about her response to remember correctly.

## **SB2. WHEN WAS THE LAST TIME YOU HAD SEXUAL INTERCOURSE?**

By 'the last time you had sexual intercourse' we are referring to the respondent's most recent act of sexual intercourse.

In most cases you will record the respondent's answer by using the same units of measure she used in her response. For example, if she says '3 weeks ago', circle '2' and write '03' in the boxes next to 'Weeks ago'. If she says "4 days ago," circle '1' and write '04' next to 'Days ago'. If the respondent says "last night," circle '1' and write '00' for 'Days ago'. If the respondent answers with a month, for example, if she says "it was in December," count the number of months and record months. It may be helpful to write the name of the month in the questionnaire. All responses within the last 12 months will be recorded in months, weeks or days.

If the response is 12 months or more, circle '4' and record the answer in years. The 'Years ago' row should be used only if the last intercourse was more than 1 year ago. There should never be a response recorded '00' 'Years Ago'. If the response is 12 months or more, go to the next module.

While this question is a simple one, respondents who have not had sexual intercourse recently are likely to round off their answers, and it will be up to you to learn from respondents whether they last had sex more or less than a year ago. For example, a woman with no regular sexual relationships may engage in sexual intercourse on an irregular basis. Perhaps the last time she had sexual intercourse was during a trip she took 10 months ago; she will be more likely to respond "about a year ago," rather than count how many months ago it was. Therefore, you will need to probe all responses of 'a year ago' with: **"DO YOU REMEMBER WHICH MONTH IT WAS?"** In this way, we will be able to determine whether the respondent actually had intercourse within the last year or more than a year ago. Respondents who last had sexual intercourse, 10, 11, 12, 13, 14 or 15 months ago may all give responses of 'a year ago'; it will be up to you to clarify when it actually was. Asking the respondent **"WAS IT MORE OR LESS THAN A YEAR AGO"** is not a very good probe for this question; it would be best to ask, **"DO YOU REMEMBER WHAT MONTH IT WAS?"**

If a woman has not yet resumed intercourse since she had her last child, check CM11 for the month and year of birth of her last child, and ask how long before the birth of that child she had sex the last time.

**SB3. THE LAST TIME YOU HAD SEXUAL INTERCOURSE WAS A CONDOM USED?**

If used correctly, condoms can reduce the risk of transmission of AIDS and other sexually transmitted infections. We do not mention this fact to the respondent, because we do not want to influence her answer here. In this question we are referring only to the last occasion the respondent had sexual intercourse.

Circle the code for the response given.

**SB4. WHAT IS YOUR RELATIONSHIP TO THE MAN WITH WHOM YOU LAST HAD SEXUAL INTERCOURSE?**

In this question, we want to know the relationship of the respondent to the person with whom she last had sex. If the man is 'Boyfriend or fiancé', ask: **"WAS YOUR BOYFRIEND/FIANCÉ LIVING WITH YOU WHEN YOU LAST HAD SEX?"** If 'Yes', circle '1' for 'Spouse/cohabiting partner' and skip to SB6. If 'No', circle '2' and continue with the next question.

Note that we are interested in the relationship of the woman with the person mentioned at the time they last engaged in sexual intercourse. For example, if a woman's last partner was a boyfriend she was living with at the time, you would record 'Spouse/cohabiting partner' even though they are no longer living together. They were living together at the time of the sexual encounter. Record the status of the relationship that existed at the time the two people last had sexual intercourse. It is most important to determine whether or not the sexual partner was someone the respondent was living with at the time they last had sexual intercourse.

**SB5. HOW OLD IS THIS PERSON?**

Sometimes young women have sexual partners who are significantly older than they are; this can put them at higher risk of HIV infection. In this question we ask young women to tell us the age of their sexual partners.

Record the age in the space provided. If she does not know, ask her to estimate the age of this person. If the respondent is unable to estimate the partner's age, circle '98' and continue to the next question.

**SB6. HAVE YOU HAD SEX WITH ANY OTHER MAN IN THE LAST 12 MONTHS?**

We are interested in finding out whether the respondent had sex with anyone else within the past 12 months. We want the respondent to take their time in answering because we are asking about a fairly long period of time – the entire year preceding the date of interview. Continue to the next question if 'Yes'. If 'No', go to the next module.

**SB7. THE LAST TIME YOU HAD SEXUAL INTERCOURSE WITH THIS OTHER MAN, WAS A CONDOM USED?**

This question asks about condom use with 'this other man'. This is the man she had intercourse with during the last 12 months, but not the man she had her last intercourse with.

Circle the code for the response given.

**SB8. WHAT IS YOUR RELATIONSHIP TO THIS MAN?**

This question asks about the relationship she had with this other man. It should refer to the relationship she had with the man at the time of intercourse. Replace 'IS' in the question to 'WAS', if necessary.

The questions should be asked, probed and recorded the same way as SB4. Note that if '1' is circled (the man was a spouse or cohabiting partner at the time of intercourse), you should skip to SB10.

**SB9. HOW OLD IS THIS PERSON?**

Again, we are looking for the age of the man she had intercourse with at the time of the sexual encounter.

Record the age in the space provided. If she does not know, ask her to estimate the age of this person. If the respondent is unable to estimate the sexual partner's age, circle '98' and continue to the next questions.

**SB10. OTHER THAN THESE TWO MEN, HAVE YOU HAD SEX WITH ANY OTHER MAN IN THE LAST 12 MONTHS?**

Circle the code corresponding to response given. Continue to the next question if the response is 'Yes'. If 'No', go to the next module.

**SB11. IN TOTAL, WITH HOW MANY DIFFERENT MEN HAVE YOU HAD SEX IN THE LAST 12 MONTHS?**

This is the total number of different partners the respondent has had sexual intercourse with in the last 12 months, including the ones already mentioned.

Enter the total in the space provided. If her response is less than 10, use a leading zero. Since this question is asked only if the respondent has had sexual intercourse with at least three partners in the last 12 months, the answer should never be '00', '01' or '02'.

## OPTIONAL MODULES FOR THE QUESTIONNAIRE FOR INDIVIDUAL WOMEN

**SURVEY COORDINATORS:** OPTIONAL MODULES SHOULD BE ADDED TO THE QUESTIONNAIRE IN COUNTRIES WHERE THEY ARE OF PARTICULAR RELEVANCE AND USE TO THE COUNTRY. YOU SHOULD ASCERTAIN THAT THERE IS INTEREST IN THESE MODULES FROM THE GOVERNMENT OR OTHER STAKEHOLDERS, AND THAT THEIR RESULTS WILL BE USED FOR PROGRAMMATIC OR OTHER PURPOSES, BEFORE YOU DECIDE TO USE THESE MODULES IN YOUR SURVEY.

IN SOME CASES, OPTIONAL MODULES REPLACE A CORE MODULE IN THE WOMEN'S QUESTIONNAIRE; IN OTHERS, AN OPTIONAL MODULE MAY SIMPLY BE ADDED TO THE QUESTIONNAIRE. OPTIONAL MODULES ARE SOMETIMES COMPOSED OF ONLY A FEW QUESTIONS THAT CAN BE INSERTED INTO ONE OF THE CORE OR ADDITIONAL MODULES. CHECK CHAPTER 3 AND APPENDIX TWO TO SEE WHERE EACH OF THE OPTIONAL MODULES SHOULD BE PLACED.

### SECURITY OF TENURE

**SURVEY COORDINATORS:** THIS MODULE IS ONLY COMPOSED OF ONE QUESTION, WHICH SHOULD BE PLACED AFTER THE MARRIAGE/UNION MODULE.

#### ST1. DO YOU FEEL SECURE FROM EVICTION FROM THIS DWELLING?

Ask this question to all women interviewed, regardless of whether the dwelling is owned or rented by the household, or whether there is any documentation or agreement. Ask the question to the woman once again, if she has been asked a similar question during the interview for the Household Questionnaire, to which she might have been the respondent. We are interested in the woman's own perception of the risk of eviction, which may be different than the perception of the respondent in the Household Questionnaire.

Ask the question as it is written and record the response. Note that eviction may refer to justified eviction (as in cases of non-payment of rent or legal land-taking) or unjustified eviction (eviction without due legal process). If necessary, explain to the respondent that the question refers to either of these cases. Record the respondent's perception of security from eviction.

**ATTITUDES TOWARD DOMESTIC VIOLENCE**

**SURVEY COORDINATORS:** THIS MODULE IS ONLY COMPOSED OF ONE QUESTION, WHICH SHOULD BE PLACED AFTER THE CONTRACEPTION MODULE.

In this module, we have only one question, which asks for the woman's opinion on domestic violence. Note that we are not asking whether the woman has been subjected to domestic violence. Research has shown, however, that there is overall agreement in the proportion of women who think that a husband may be justified in hitting or beating his wife in certain situations, and the actual prevalence of domestic violence. The correlation may be on a societal level, and not on an individual level.

**SURVEY COORDINATORS:** KEEP THE SITUATIONS AS THEY ARE DESCRIBED IN THE MODULE (DV1A TO DV1E) SINCE THESE WILL BE USED FOR CROSS-COUNTRY COMPARISONS. YOU MAY WANT TO ADD OTHER SITUATIONS THAT YOU THINK MAY ALSO BE CULTURALLY RELEVANT.

**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:**

**DV1A. IF SHE GOES OUT WITHOUT TELLING HIM?**

**DV1B. IF SHE NEGLECTS THE CHILDREN?**

**DV1C. IF SHE ARGUES WITH HIM?**

**DV1D. IF SHE REFUSES SEX WITH HIM?**

**DV1E. IF SHE BURNS THE FOOD?**

Read each item aloud. For each situation, circle the code corresponding to the answer given – '1' if 'Yes' (she thinks the husband is justified in hitting or beating his wife in that situation), '2' if 'No', and '8' if the respondent does not know or does not have an opinion.

**CONTRACEPTION AND UNMET NEED**

**SURVEY COORDINATORS:** THIS MODULE PROVIDES A SIMPLIFIED APPROACH TO ESTIMATING THE ‘UNMET NEED FOR CONTRACEPTION’ IN A COUNTRY, AS WELL AS THE ‘PROPORTION OF DEMAND (FOR CONTRACEPTIVES) SATISFIED’.

THIS OPTIONAL MODULE ADDS A NUMBER OF ADDITIONAL QUESTIONS TO THE CORE ‘CONTRACEPTION MODULE’ IN THE QUESTIONNAIRE FOR INDIVIDUAL WOMEN. YOU SHOULD REPLACE THE CONTRACEPTION MODULE WITH THIS MODULE IF YOU INTEND TO MEASURE THE UNMET NEED INDICATORS. THE INSTRUCTIONS BELOW PERTAIN TO ALL QUESTIONS IN THE MODULE, INCLUDING THOSE ALREADY COVERED PREVIOUSLY AS PART OF INSTRUCTIONS FOR THE CONTRACEPTION MODULE, SINCE THIS OPTIONAL MODULE IS SIGNIFICANTLY DIFFERENT THAN THE CORE MODULE IN TERMS OF ADDITIONAL QUESTIONS AND SKIP PATTERNS.

This module should be administered to all women aged 15-49 years (including women age 15 and age 49). These questions and the ones in the HIV/AIDS module deal with private behaviour and attitudes. The questions are designed to elicit basic information needed to estimate contraceptive prevalence rates and types of methods used, as well as to measure the need for family planning by identifying women who want no more children or want to postpone their next birth.

**SURVEY COORDINATORS:** EACH COUNTRY COORDINATOR (AND SURVEY ADVISORY GROUP) WILL NEED TO MAKE DECISIONS ABOUT HOW TO INTRODUCE THESE QUESTIONS. A SUITABLE INTRODUCTION SHOULD BE PROVIDED TO FIELDWORKERS. INTERVIEWERS NEED TO BE ESPECIALLY SKILLED IN BRINGING UP THESE SENSITIVE TOPICS. AS NOTED EARLIER, INTERVIEWERS SHOULD ALWAYS BE FEMALE. MALE INTERVIEWERS SHOULD NOT BE EMPLOYED TO ASK WOMEN THESE QUESTIONS.

**SURVEY COORDINATORS:** SOME COUNTRIES MAY WANT TO ASK THESE QUESTIONS ON CONTRACEPTION ONLY TO WOMEN WHO HAVE EVER BEEN MARRIED. IN SUCH CASES, YOU MAY WANT TO INTRODUCE A FILTER QUESTION BEFORE CP1, IN WHICH THE INTERVIEWER MARKS WHETHER THE WOMAN IS OR HAS EVER BEEN MARRIED, AND SKIPS TO THE NEXT MODULE IF SHE HAS NEVER MARRIED.

If present, male members of field teams (such as supervisors, editors and drivers) should be asked to leave the interview area. Even in cases where women are being interviewed alone, they will be reluctant to answer these questions if they sense you are part of a team that includes males and that her responses may be shared with them.

**CP1. I WOULD LIKE TO TALK WITH YOU ABOUT ANOTHER SUBJECT – FAMILY PLANNING – AND YOUR REPRODUCTIVE HEALTH. ARE YOU PREGNANT NOW?**

This question is important because later questions in this module will not need to be asked of pregnant women. A woman who is pregnant does not need to use contraception!

Circle the code corresponding to the response given. If she is pregnant, circle ‘1’ and go to the next question. If the woman is not pregnant, circle ‘2’. If she is unsure or does not know for certain if she is pregnant, circle ‘8’ for ‘Unsure or DK’. In both cases, skip to CP2.



**CP1A. AT THE TIME YOU BECAME PREGNANT DID YOU WANT TO BECOME PREGNANT THEN, DID YOU WANT TO WAIT UNTIL LATER, OR DID YOU NOT WANT TO HAVE ANY MORE CHILDREN?**

This question is asked only to women who are pregnant at the time of interview (CP1=1), and the answer is used to assess the woman's need for contraception: If she did not want to become pregnant, she is considered to have 'unmet need'. Read the entire question to the respondent before accepting an answer, stressing the underlined words. Circle the code corresponding to the response given. Whatever the woman's response to this question, you should skip to CP4B.

**CP2. SOME PEOPLE USE VARIOUS WAYS OR METHODS TO DELAY OR AVOID A PREGNANCY. ARE YOU CURRENTLY DOING SOMETHING OR USING ANY METHOD TO DELAY OR AVOID GETTING PREGNANT?**

Circle the code corresponding to the response given. If the answer is 'No', go to the next module.

**CP3. WHICH METHOD ARE YOU USING?**

Circle the code corresponding to the response given. Do not prompt the woman. If she mentions more than one method, circle the code for each method that is currently being used. If she mentions a method you do not know of, write her description in the space provided in 'Other' and circle 'X'.

**SURVEY COORDINATORS:** YOU MAY WANT TO INVITE AN EXPERT ON CONTRACEPTION TO THE TRAINING SESSION OF THE INTERVIEWERS AND HAVE EACH OF THE METHODS DESCRIBED/EXPLAINED.

Since methods are effective for different lengths of time, you may have difficulty determining if a particular respondent is currently using a method. Current users of the pill should be taking pills daily. Methods such as condoms, vaginal methods, and withdrawal are used with each act of intercourse, so current users of these methods will have used them during the most recent acts of intercourse.

Other methods provide ongoing protection without daily or regular action by the woman. Contraceptive injections may be administered 2 to 6 months earlier and still provide protection. Implants provide protection for up to 5 years or until removed. An IUD protects against pregnancy until it is removed or expelled.

If necessary, consider the last 1 month as 'current use'.

If the woman has been sterilized, you will circle 'A' for 'Female sterilization' as the current method. If the woman's current partner has been sterilized, you will circle 'B' for 'Male sterilization' as the current method. If, however, she is no longer married to (or living with) a former partner who had a vasectomy, this should not be noted as the current method. Lactational amenorrhoea method (LAM) should only be circled if the woman explicitly states that she is breastfeeding for contraceptive purposes or that she believes that she is being protected from the risk of pregnancy because she is breastfeeding.

**CP4A. NOW I WOULD LIKE TO ASK SOME QUESTIONS ABOUT THE FUTURE. WOULD YOU LIKE TO HAVE (A/ANOTHER) CHILD, OR WOULD YOU PREFER NOT TO HAVE ANY (MORE) CHILDREN?**

Ask the question choosing the appropriate wording, based on what you know about the woman. If she is not pregnant, and has no living children, ask: "NOW I WOULD LIKE TO ASK SOME QUESTIONS ABOUT THE FUTURE. WOULD YOU LIKE TO HAVE A CHILD OR WOULD YOU PREFER NOT TO HAVE ANY CHILDREN?" Ask the entire question before accepting an answer.

If she is not pregnant and has one or more children, you will have to word the question differently, saying **“WOULD YOU LIKE TO HAVE ANOTHER CHILD OR WOULD YOU PREFER NOT TO HAVE ANY MORE CHILDREN?”**

Circle the code corresponding to the response given. Note that each response leads to a different skip instruction. If the woman wants to have a/another child, you should circle ‘1’ and continue with CP4C. If she wants no more children or does not want to have children at all, you should circle ‘2’ and skip to CP4D. If she says she cannot get pregnant, circle ‘3’ and skip to the next module. If she is undecided or does not know, circle ‘8’ and skip to CP4D.

For women who are currently pregnant, you will not be asking CP4A. Instead, you will be asking CP4B, which uses the same response categories and is essentially the same question as CP4A, worded slightly differently:

**CP4B. *If currently pregnant:* NOW I WOULD LIKE TO ASK SOME QUESTIONS ABOUT THE FUTURE. AFTER THE CHILD YOU ARE NOW EXPECTING, WOULD YOU LIKE TO HAVE ANOTHER CHILD, OR WOULD YOU PREFER NOT TO HAVE ANY (MORE) CHILDREN?**

Note that we want to make sure that pregnant women do not think that we are asking them if they want the child they are pregnant with now. Response categories and skip instructions are the same as those for CP4A.

**CP4C. HOW LONG WOULD YOU LIKE TO WAIT BEFORE THE BIRTH OF (A/ANOTHER) CHILD?**

Here, you will also need to choose the appropriate phrasing for the question, based on what you already know about the respondent. This question should be asked of all women (pregnant or not pregnant) who say that they want to have another child.

Note that the answer can be given in months or years. Circle ‘1’ if the response is in months or ‘2’ if in years, and record the answer in the appropriate spaces. If she says she would like to have a baby right away, record 993 for ‘Soon/now’. If the woman says she cannot get pregnant, circle ‘994’. If the woman tells you she would like to wait until after she is married to have a child, record ‘995’ for ‘After marriage’. If she gives a different answer, circle ‘996’ for ‘Other’. If she says she does not know, circle ‘998’. For women who say that they cannot get pregnant, you should skip to the next module.

**CP4D. *Check CP1:***

This is a filter that you will use to make sure that you do not ask question CP4E to women who are pregnant at the time of the interview. Check her response to CP1: If the woman is currently pregnant, mark the corresponding box and skip to the next module. If she is currently not pregnant or is unsure, continue with the next question, CP4E.

**CP4E. DO YOU THINK YOU ARE PHYSICALLY ABLE TO GET PREGNANT AT THIS TIME?**

A woman who believes that she is incapable of becoming pregnant cannot be considered to have ‘unmet need’ for contraception. This question aims to learn whether the woman thinks she can conceive a child. Circle the code corresponding to the response given.

Make sure that the woman does not relate her current physical ability to get pregnant with her current marital status. It is important to emphasize to the woman, if necessary, that we are interested in her

current physical ability – she may be physically able to get pregnant, but may think that this is not possible because she currently does not have a partner. In such cases, the woman should obviously be coded as ‘Yes’.

## HOW TO FILL IN THE QUESTIONNAIRE FOR CHILDREN UNDER FIVE

### CORE MODULES

The purpose of the Questionnaire for Children Under Five is to provide information on a wide range of MICS3 indicators relating to the first 5 years of life. You will have identified children under five, eligible for this questionnaire, after you have completed the Household Listing in the Household Questionnaire. The core modules of this questionnaire include Birth Registration and Early Learning, Vitamin A, Breastfeeding, Care of Illness, Immunization, and Anthropometry.

To collect information on children under five by using this questionnaire, we have to identify a respondent who can answer detailed questions on the health and well-being of these children. If the mother is living in the same household as the eligible child (in other words, if she is listed in the Household Listing, together with the child), then she is obviously the person who should be interviewed for that child. If the mother of the eligible child is not listed in the Household Listing (she may be deceased or living elsewhere), you should have identified a person in the Household Listing who takes primary responsibility for raising and caring for the child.

**SURVEY COORDINATORS:** INTERVIEWERS MAY GET CONFUSED ABOUT WHO THE RESPONDENT TO THE QUESTIONNAIRE FOR CHILDREN UNDER FIVE SHOULD BE. EXPLAIN THIS THOROUGHLY DURING TRAINING, GIVING EXAMPLES. MAKE SURE TO EXPLAIN THAT THE PRIMARY CARETAKER IS NOT SIMPLY SOMEONE LOOKING AFTER THE CHILD WHEN THE MOTHER IS AWAY (FOR INSTANCE, PEOPLE WHO MAY CARE FOR THE CHILD DURING THE DAY WHEN THE MOTHER IS AT WORK). EXPLAIN TO INTERVIEWERS THAT THEY SHOULD ONLY INTERVIEW RESPONDENT OTHER THAN THE MOTHER IF THE MOTHER IS NOT LISTED IN THE HOUSEHOLD.

This questionnaire is to be administered to all mothers or primary caretakers (see the Household Listing, column HL8) who care for a child that lives with them and is under the age of 5 years (see the Household Listing, column HL5).

A separate form should be filled in for each eligible child listed in the Household Questionnaire – check column HL8 on the Household Listing. Circle the number corresponding to the mother's or caretaker's response where indicated.

### UNDER-FIVE CHILD INFORMATION PANEL

UF1-UF8 should be filled in before you start the interview.

#### UF1. Cluster number

Enter the cluster number from the Household Questionnaire, question HH1.

#### UF2. Household number

Enter the household number from the Household Questionnaire, question HH2.

**UF3. Child's name**

Enter the child's name from the Household Questionnaire, column HL2 of the Household Listing. The child's name should be used throughout the interview. In order to prevent confusion during the interview, his/her name is recorded here.

**UF4. Child's line number**

Enter the child's line number from the Household Questionnaire, column HL1 of the Household Listing.

**UF5. Mother's/caretaker's name**

Enter the mother's/primary caretaker's name from the Household Questionnaire, column HL2 of the Household Listing.

**UF6. Mother's/caretaker's line number**

Enter the mother's/primary caretaker's line number from the Household Questionnaire, column HL1 of the Household Listing.

**UF7. Interviewer name and number**

Enter your own name and identifying number. You will be provided with these identification numbers during training.

**UF8. Day/month/year of interview**

Enter the date of the interview: day/month/year. If the interview is not completed on your first visit and you visit the household to interview the mother/caretaker again, revise and enter the final date of the interview. In other words, the date here should be the date when you have either completed the Questionnaire for Children Under Five, or when the interview was not conducted but when it was decided that there will be no more attempts to interview the mother or primary caretaker of the under-five child.

**UF9. Result of interview for children under five**

Complete this question once you have concluded the interview. Remember that the code refers to the mother or primary caretaker of the under-five child. Circle the code corresponding to the results of the interview. If the questionnaire is completed, circle '1' for 'Completed'. If you have not been able to contact the mother/primary caretaker after repeated visits, circle '2' for 'Not at home'. If the mother/primary caretaker refuses to be interviewed, circle '3' for 'Refused'. If you were able to only partly complete the questionnaire, circle '4' for 'Partly completed'. If the mother/primary caretaker is incapacitated, circle '5'. If you have not been able to complete this questionnaire for another reason, you should circle '6' for 'Other' and specify the reason in the space provided.

Ask the mother/primary caretaker to collect all the birth certificates and health/ immunization cards she has for this child before you begin the interview. You will need these during the interview.

Repeat greeting if not already read to this mother/primary caretaker: **"WE ARE FROM (*country-specific affiliation*). WE ARE WORKING ON A PROJECT CONCERNED WITH FAMILY HEALTH AND EDUCATION. I WOULD LIKE TO TALK TO YOU ABOUT THIS. THE INTERVIEW WILL TAKE ABOUT (*number*) MINUTES. ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND YOUR ANSWERS**

**WILL NEVER BE IDENTIFIED. ALSO, YOU ARE NOT OBLIGED TO ANSWER ANY QUESTION YOU DON'T WANT TO, AND YOU MAY WITHDRAW FROM THE INTERVIEW AT ANY TIME. MAY I START NOW?"**

**SURVEY COORDINATORS:** WHEN THE QUESTIONNAIRES ARE CUSTOMIZED, REPLACE (*country-specific affiliation*) WITH THE NAME OF THE IMPLEMENTING AGENCY IN YOUR COUNTRY. ESTIMATE THE APPROXIMATE DURATION OF THE UNDER-FIVE'S INTERVIEW DURING THE PRE-TEST AND REPLACE (*number*) WITH THIS ESTIMATE.

As with similar sentences at the beginning of the Household Questionnaire and Questionnaire for Individual Women, you may change the wording of these introductory sentences as appropriate. You must make sure, however, to include the following when you are introducing yourself: The name of the implementing agency; the topic of the survey; the approximate duration of the interview; the issue of confidentiality; and with whom you would like to speak.

If permission is given, begin the interview. If the respondent does not agree to continue, thank her/him and go to the next interview. Later, discuss the refusal with your supervisor; you or another person from the team may attempt to interview the respondent for a second time. This will depend on your description of the refusal. However, remember that the respondent's participation in the survey must be on a voluntary basis, and potential respondents must never be forced to participate.

**Date of birth and age.** You will begin the interview with questions about the child's date of birth and age. These are two of the most important questions in the interview, since almost all analysis of the data depends on the child's exact age. While completed age in years is sufficient for women's interviews, we need to obtain accurate information on the child's age in months. This is necessary because some of the analysis of the information that you will be collecting can only be done on the basis of age in months. You will collect this information by learning the child's date of birth. It will then be possible to compare the date of interview with the date of birth of the child and, after the data is collected, calculate the child's age in months by comparing these two pieces of information.

The questions on age and date of birth must be asked independently from similar questions on the Household Questionnaire and Questionnaire for Individual Women. The person you may be interviewing for this questionnaire may be the same woman you interviewed for the Questionnaire for Individual Women, and you may have obtained dates of birth of her children in that questionnaire. Also, you may have obtained the child's age in the Household Questionnaire. Even in such cases, you must ask these questions again.

**SURVEY COORDINATORS:** THE CHILD'S DATE OF BIRTH IS VERY IMPORTANT IN THIS SURVEY. FOR A NUMBER OF INDICATORS, INCLUDING THOSE ON ANTHROPOMETRY, IMMUNIZATION AND BREASTFEEDING, WE NEED TO HAVE THE EXACT AGE OF CHILDREN IN MONTHS TO BE ABLE TO CALCULATE THE RELEVANT INDICATORS (SEE APPENDIX ONE). EMPHASIZE THIS IN THE TRAINING AND DISCUSS WAYS OF OBTAINING ACCURATE DATES OF BIRTH WITH THE INTERVIEWERS.

**UF10. NOW I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT THE HEALTH OF EACH CHILD UNDER THE AGE OF 5 IN YOUR CARE, WHO LIVES WITH YOU NOW. NOW I WANT TO ASK YOU ABOUT (*name*). IN WHAT MONTH AND YEAR WAS (*name*) BORN?**

Note that you may modify the first sentence based on the number of children in the respondent's care. If this is the only child the respondent cares for, change the sentences to "NOW I WOULD LIKE TO

**ASK YOU SOME QUESTIONS ABOUT THE HEALTH OF (*name*). IN WHAT MONTH AND YEAR WAS (*name*) BORN?"**

Ask the mother or primary caretaker for the child's date of birth. Probe: **"WHAT IS HIS/HER BIRTHDAY?"** It is important to record the child's month and year of birth accurately.

If the mother/primary caretaker knows the exact birth date, including the day, enter the day of birth. Otherwise, circle '98' for 'DK day'. You do not need to probe further for day of birth.

Convert the month to a number as you have done before. Enter the number in the space provided. If the month or day contains only one digit, use a leading zero. For example, the month of March is coded as '03'. Note that you are not allowed to enter DK for month or year of birth. You have to obtain month and year of birth of the child.

Since all MICS3 surveys will be conducted in 2005 or 2006, the year of birth of the child cannot be earlier than 2000 (for surveys in 2005) or 2001 (for surveys in 2006).

If the mother/primary caretaker is unable to provide the date of birth information, ask whether she/he has any documentation such as an identification card, health card, horoscope, or a birth or baptismal certificate that might give the date of birth of the child. However, confirm with the respondent that the date of birth recorded on such documents is indeed correct.

**UF11. HOW OLD WAS (*name*) AT HIS/HER LAST BIRTHDAY?**

After having obtained the child's date of birth, ask the child's age in completed years, and record in the space provided. Remember, ages must refer to the last birthday.

If the mother/primary caretaker does not know the current age of the child, try asking **"HOW MANY YEARS AGO WAS (*name*) BORN?"** You may help the respondent by relating the child's age to that of other children or to some important event or to the season of birth, by asking, for example, **"HOW MANY WET SEASONS AGO WAS (*name*) BORN?"**

**SURVEY COORDINATORS:** DURING TRAINING, PROVIDE INTERVIEWERS THE DATES OF IMPORTANT EVENTS THAT THEY CAN USE AS REFERENCE POINTS IN THE INTERVIEWS. DATES OF RECENT NATURAL DISASTERS, MAJOR POLITICAL INCIDENTS AND RELIGIOUS EVENTS CAN BE VERY USEFUL TO PROBE FOR DATES OF BIRTH, AGES, DURATIONS AND SO FORTH.

Ask UF10 and UF11 independently. Then, check for consistency between the date of birth and completed age.

You have to be meticulous in checking for the consistency between the date of birth and age. You also have to be fairly quick in doing so. A good interviewer will perform the check without causing a lull in the conversation.

**Checking for consistency between date of birth (UF10) and completed age (UF11).** After having obtained both date of birth and age, check for the consistency between the two. The child's age plus her year of birth must equal the year in which the child last had a birthday.

Assuming that you were able to obtain a month and year of birth, you should check the consistency by following these steps:

- If the month of birth is before the month of interview (the child had his/her birthday this year), then her/his age plus her/his year of birth should equal the year of interview.
  - Example: A child who was born in October 2003, in a survey conducted in November 2005, should be age 2 ( $2003 + 2 = 2005$ ).
- If the month of birth is after the month of interview (the child has not had his/her birthday this year), then her/his age plus year of birth should equal the previous year.
  - Example: A child who was born in December 2003, in a survey conducted in October 2005, should be age 1 ( $2003 + 1 = 2004$ ).
- If the month of birth is the same as the month of interview, and the day of birth is not known, then a sum of either the current or the previous year is correct.
  - Example: A child born in November 2002, in a survey conducted in November 2005, could be age 3 or age 2. Probe further to see if the date of birth is correct and whether the child has completed age 2 or 3.
- If the month of birth is the same as the month of interview, and the day of birth is known, the sum of age and year of birth should equal the year of interview if the day of birth is before the day of interview, and the sum of age and year of birth should equal the previous year if the day of birth is after the day of interview.
  - Example: A child born on 8 February 2002, in an interview conducted on 15 February 2006, should be age four. A child born on 28 February 2002, in an interview conducted on 3 February 2006, should be age three, since this child will complete 4 full years on 28 February 2006.

If you find that the date of birth and age are inconsistent, either the date of birth or the age, or both, are incorrect, and need to be corrected. Do not assume that one is more accurate than the other. Probe, using documents that may be available, dates of well-known events and ages of other children, of the respondent herself/himself, etc.



## BIRTH REGISTRATION AND EARLY LEARNING MODULE

### BR1. DOES (*name*) HAVE A BIRTH CERTIFICATE? MAY I SEE IT?

**SURVEY COORDINATORS:** YOU MUST BE SENSITIVE TO LEGAL ISSUES SURROUNDING BIRTH REGISTRATION. IF THERE IS A LEGAL BURDEN ON PARENTS TO REGISTER EVERY BIRTH, AND ESPECIALLY IF SANCTIONS ARE IN PLACE FOR NON-REGISTRATION, IT MAY BE DIFFICULT TO OBTAIN ACCURATE RESPONSES TO THIS QUESTION AS WELL AS THE SUBSEQUENT QUESTIONS. PRE-TEST RESULTS SHOULD BE EXAMINED CAREFULLY AND THE QUESTIONNAIRE REVISED ACCORDINGLY.

This question aims to provide an estimate of the extent of birth registration in your country. Respondents must be assured that the information about individual families will never be given to authorities, and that they cannot be identified in any way.

Ask to see the birth certificate. Circle the appropriate corresponding code, noting whether or not the certificate was seen. If the child has a birth certificate and it was seen, circle '1' and skip to BR5. If the child does not have a birth certificate ('3'), or if the child has a birth certificate but the mother/primary caretaker is unable to show you the certificate ('2'), continue to the next question.

### BR2. HAS (*name's*) BIRTH BEEN REGISTERED WITH THE CIVIL AUTHORITIES?

Circle the code corresponding to the response. If the answer is 'Yes', skip to BR5. If the child's birth has not been registered with civil authorities, continue to the next question. If the answer is 'DK', skip to BR4.

### BR3. WHY IS (*name's*) BIRTH NOT REGISTERED?

**SURVEY COORDINATORS:** ADJUST RESPONSE CATEGORIES FOLLOWING THE PRE-TEST. THERE IS A WIDE RANGE OF REASONS ACROSS COUNTRIES AS TO WHY A BIRTH MAY NOT BE REGISTERED. USE THE MOST FREQUENTLY CITED REASONS IN YOUR COUNTRY DURING THE PRE-TEST, ALLOWING SPACE TO WRITE IN OTHER RESPONSES.

This question aims to elicit the reason for non-registration.

Circle the code corresponding to the response. Note that although there might be more than one reason for not registering a child, we need to get only one response – the most important one according to the mother/primary caretaker. If the response is definitely not one of the pre-coded responses, circle '6' for 'Other' and specify the response in the space provided.

### BR4. DO YOU KNOW HOW TO REGISTER YOUR CHILD'S BIRTH?

The purpose of this question is to assess how important lack of knowledge (of the process of registering or, if applicable, the place to go to register) may be among the reasons for non-registration. This information can inform advocacy efforts and help in the formulation of education campaigns.

Circle the code corresponding to the response.

**BR5. Check age of child in UF11: Child is 3 or 4 years old?**

If the child is 3 or 4 years old, check the box marked 'Yes' and continue on to BR6. If not (if the child is 0, 1 or 2 years old), check the box marked 'No' and skip 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?**

This question aims to find out if the child is participating in early learning activities. Baby-sitting or child-minding, even if done in a special place such as a day-care centre, does not qualify as such a programme unless it includes organized learning activities. You must ensure that the mother or primary caretaker understands the meaning of 'Early Childhood Education Programme', explaining it as instructed.

Circle the appropriate code. Skip to BR8 if the answer to this question is 'No' or 'DK'.

**SURVEY COORDINATORS:** SUPPLY APPROPRIATE LOCAL TERMS FOR THESE TYPES OF EDUCATION PROGRAMMES. IF YOU ARE UNSURE OF WHETHER A PROGRAMME QUALIFIES AS AN 'EARLY CHILDHOOD EDUCATION PROGRAMME', CONTACT THE GLOBAL MICS3 COORDINATOR AT UNICEF HEADQUARTERS IN NEW YORK.

**BR7. WITHIN THE LAST SEVEN DAYS, ABOUT HOW MANY HOURS DID (name) ATTEND?**

This question is asked if the child is attending an early childhood education programme. Record the estimated number of hours the child attended any organized learning or early childhood education programme in the last 7 days. Use a leading zero if necessary.

**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)?**

Read each item shown below. If 'No', circle 'Y' and move to the next item on the list. 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)?" For each activity, circle the code for every person who engaged in the activity with the child before proceeding to the next item. If someone other than the mother or father engaged in the activity with the child, circle 'X'.

Note that in a household where there are no adults other than the child's mother and father, 'X' should not be circled. Adults who are not members of the household but who may have engaged in the listed activities with the child should not be coded here.

**BR8A. READ BOOKS OR LOOK AT PICTURE BOOKS WITH (name)?**

**BR8B. TELL STORIES TO (name)?**

**BR8C. SING SONGS WITH (name)?**

**BR8D. TAKE (name) OUTSIDE THE HOME, COMPOUND, YARD OR ENCLOSURE?**

**BR8E. PLAY WITH (name)?**

**BR8F. SPEND TIME WITH (name) NAMING, COUNTING AND/OR DRAWING THINGS?**

**VITAMIN A MODULE**

**SURVEY COORDINATORS:** INTERVIEWERS SHOULD HAVE SAMPLES OF VITAMIN A CAPSULES OR DISPENSERS DURING THE INTERVIEWS. SHOWING THESE TO RESPONDENTS MAY ASSIST THEM IN REMEMBERING WHETHER THE CHILD WAS GIVEN A VITAMIN A SUPPLEMENT.

**VA1. HAS (*name*) EVER RECEIVED A VITAMIN A CAPSULE (SUPPLEMENT) LIKE THIS ONE?**

This question asks if the child has received a vitamin A supplement.

Show the capsule or dispenser you were given to help the caretaker remember. You may be instructed to show different capsules, 100,000 IU for children 6-11 months old and 200,000 IU for children 12-59 months old, asking the caretaker to identify the correct one. Circle the code corresponding to the response. If the child has never received a vitamin A supplement or the mother/caretaker does not know if he/she has ever received one, skip to the next module.

**VA2. HOW MANY MONTHS AGO DID (*name*) TAKE THE LAST DOSE?**

If the answer to VA1 was 'Yes', record the number of months ago the last dose was given to the child. As you have done before, use a leading zero if necessary. If the child received the supplement during the 1-month period preceding the interview, record '00'. Circle '98' if the mother/primary caretaker does not know when the child took the last dose.

**VA3. WHERE DID (*name*) GET THIS LAST DOSE?**

This question is meant to provide information for health programmes about where children are most likely to get their vitamin A dose.

Circle the code corresponding to the answer given. If the dose was obtained during a routine visit to a health facility, circle '1'. If the child was taken to a health facility because she/he was sick, and the supplement was obtained during this visit, circle '2'. If vitamin A supplement was given during a National Immunization Campaign, circle '3'. If the supplement was obtained from a source not listed, write the description next to 'Other' and circle '6'.

**SURVEY COORDINATORS:** FIND OUT BEFORE THE SURVEY WHETHER VITAMIN A SUPPLEMENTATION WAS PROVIDED IN THE IMMUNIZATION CAMPAIGN, AND SHARE THIS INFORMATION WITH INTERVIEWERS DURING INTERVIEW.

**BREASTFEEDING MODULE****BF1. HAS (*name*) EVER BEEN BREASTFED?**

This question asks if the child has ever been breastfed. It includes any breastfeeding experience of the child – not necessarily by the mother/primary caretaker.

Circle the code corresponding to the response. Continue to the next question if the child was ever breastfed ('1'). If the child was never breastfed, circle 'No' and skip to BF3. Skip to BF3 in the case of a 'DK' response as well.

**BF2. IS HE/SHE STILL BEING BREASTFED?**

'Being breastfed' is defined as putting the child to the breast at least once a day.

Circle the code corresponding to the response.

**BF3. SINCE THIS TIME YESTERDAY, DID HE/SHE RECEIVE ANY OF THE FOLLOWING?**

This question asks about what the child was fed in the preceding 24 hours. The purpose of this question is to determine what liquids or foods the child was given.

**SURVEY COORDINATORS:** SUPPLY INTERVIEWERS WITH LOCAL TERMS FOR FOODS AND LIQUIDS. IF IT IS COMMON PRACTICE TO FEED CHILDREN LIQUIDS OR FOOD NOT COVERED BY THE ITEMS IN THE QUESTIONNAIRE, ADD NEW ITEMS TO THE LIST.

Prompt by asking each listed item in turn, such as: **"DID (*name*) RECEIVE VITAMIN OR MINERAL SUPPLEMENTS OR MEDICINE?"** or **"DID HE/SHE RECEIVE PLAIN WATER?"** and so on through the list. Read each item aloud and record the response before proceeding to the next item. Use the local terms for these liquids or foods. Make sure that the respondent understands the question, particularly what is meant by 'since this time yesterday'. Specify to the mother/primary caretaker: mid-morning, mid-afternoon, etc., depending on the time of the interview.

Circle the code corresponding to the response. If the mother/primary caretaker does not know the answer, repeat the question using other local words for the fluid or food. If the answer is still not known, circle '8' for 'DK'

**BF3A. VITAMIN, MINERAL SUPPLEMENTS OR MEDICINE?**

**BF3B. PLAIN WATER?**

**BF3C. SWEETENED, FLAVORED WATER OR FRUIT JUICE OR TEA OR INFUSION?**

**BF3D. ORAL REHYDRATION SOLUTION (ORS)?**

**BF3E. INFANT FORMULA?**

**BF3F. TINNED, POWDERED OR FRESH MILK?**

**BF3G. ANY OTHER LIQUIDS?**

**BF3H. SOLID OR SEMI-SOLID (MUSHY) FOOD?**

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

If the child received solid or semi-solid (mushy) food (BF3H=1), check the box marked 'Yes' and continue to the next question. If 'No' or 'DK', check the corresponding box and go to the next module.

**BF5. SINCE THIS TIME YESTERDAY, HOW MANY TIMES DID (*name*) EAT SOLID, SEMI-SOLID OR SOFT FOODS OTHER THAN LIQUIDS?**

In this question, we want to find out how many times the child was given non-liquid foods in the 24 hours prior to the interview. Record the number of times in the space provided. If the number is seven or more, record '7'. If the respondent does not know, circle '8'.

## CARE OF ILLNESS MODULE

These questions aim to find out if the child has recently had diarrhoea or any other illness and, if so, what treatments, drinks and foods the child took during the episode.

### 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 by the perception of the mother or caretaker, or by three or more loose or watery stools per day, or by blood in stool.

When asking this question, insert the name of the day of the interview. For example, if the interview is taking place on a Tuesday, ask: **“HAS (*name*) HAD DIARRHOEA IN THE LAST TWO WEEKS, THAT IS, SINCE TUESDAY OF THE WEEK BEFORE LAST?”**

Record the mother's/primary caretaker's answer by circling the corresponding code. If a respondent is not sure what is meant by diarrhoea, tell her/him it means **“THREE OR MORE LOOSE OR WATERY STOOLS PER DAY, OR BLOOD IN THE STOOL.”** Make sure the respondent understands what is meant by ‘in the last 2 weeks’. If the child has not had diarrhoea in the last 2 weeks or the caretaker doesn't know, skip to CA5.

### CA2. DURING THIS LAST EPISODE OF DIARRHOEA, DID (*name*) DRINK ANY OF THE FOLLOWING:

**SURVEY COORDINATORS:** ADAPT TO INCLUDE THE COUNTRY-SPECIFIC TERMS USED FOR THE ORAL REHYDRATION SOLUTION (ORS) PACKET, RECOMMENDED HOME FLUID, AND PRE-PACKAGED ORS FLUID.

ADAPT LOCALLY TO INCLUDE THE COUNTRY-SPECIFIC RECOMMENDED HOME FLUID. INGREDIENTS PROMOTED BY THE GOVERNMENT FOR MAKING THE RECOMMENDED HOME FLUID SHOULD BE REFLECTED IN THE CATEGORY ‘GOVERNMENT-RECOMMENDED HOMEMADE FLUID’.

IF NO PRE-PACKAGED ORS EXISTS IN THE COUNTRY, DELETE THIS CATEGORY.

We want to know if and what type of oral rehydration solution (ORS) the child took during the last episode of diarrhoea.

Ask each question separately: **“WAS (*name*) GIVEN A FLUID MADE FROM A SPECIAL PACKET CALLED (*local name for ORS packet solution*)? WAS HE/SHE GIVEN GOVERNMENT-RECOMMENDED HOMEMADE FLUID?”** and so forth. Read each item aloud and circle the code corresponding to the response before proceeding to the next item.

**CA2A. A FLUID MADE FROM A SPECIAL PACKET CALLED (*local name for ORS packet solution*)?**

**CA2B. GOVERNMENT-RECOMMENDED HOMEMADE FLUID?**

**CA2C. A PRE-PACKAGED ORS FLUID FOR DIARRHOEA?**

### CA3. DURING (*name's*) ILLNESS, DID HE/SHE DRINK MUCH LESS, ABOUT THE SAME, OR MORE THAN USUAL?

For those children who had diarrhoea in the past 2 weeks, ‘illness’ in this and the next question refers to the diarrhoea episode. Disregard any additional illness these children might have had.

If dehydrated, a child may take more fluids than usual. We want to know if the pattern of fluid consumption changed during the illness. The focus in this question is on how much fluid was actually consumed by the child.

Ask the question just as it is worded here. Read out the entire question and circle the appropriate code for the caretaker's response. Get the respondent's best judgement of the relative amount of total fluids actually consumed by the child. All fluids are included, not just special ones given during diarrhoea. For example, water, tea, fruit juice, breastmilk and formula are included as well as special fluids such as ORS.

Try to find out what actually happened, not what the respondent thinks ought to have happened. An answer such as, "A child with diarrhoea (or 'a child who is ill') needs more fluids" is not satisfactory. You would need to ask, **"BUT HOW MUCH DID YOUR CHILD ACTUALLY DRINK DURING THIS DIARRHOEA?"**

It may be difficult to estimate the relative amount of breastmilk taken by the child. The respondent may make an estimate based on whether the child nursed longer or more frequently.

**CA4. DURING (*name's*) ILLNESS, DID HE/SHE EAT LESS, ABOUT THE SAME, OR MORE FOOD THAN USUAL?**

During an episode of diarrhoea or other illness, a child may change the amount usually eaten. The focus in this question is on how much food was actually consumed by the child.

Ask the question just as it is worded here. Read out the entire question and circle the code corresponding to the caretaker's response. Get the caretaker's best judgement of the relative amount of total food actually consumed by the child. Try to find out what actually happened, not what the caretaker thinks ought to have happened. An answer such as, "A child with diarrhoea (or 'a child who is ill') needs more food" is not satisfactory. You would need to ask, **"BUT HOW MUCH DID YOUR CHILD ACTUALLY EAT DURING THIS DIARRHOEA?"**

If the caretaker replies that the child took only fluids (that is, the child did not 'eat'), circle '1' for 'None'. If the caretaker's answer is 'less than usual', probe by asking **"MUCH LESS OR A LITTLE LESS?"** to find out if she/he thinks the amount was 'much less' or 'somewhat less'. Then circle the appropriate code. If the mother/primary caretaker offered more food than usual, but the child ate much less, the answer is 'much less'; circle '2'.

Make sure that the respondent understands that this includes breastmilk, if the child is still being breastfed. If the child is very young and the caretaker replies that he/she takes only fluids or breastmilk (that is, has not started 'eating' yet), there is no need to probe, since 'drinking' and 'eating' count as the same for this child. Circle the answer for this question (eating) that comes closest to the answer you circle for CA3 (drinking).

**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?**

Illness with a cough means a cold or other acute respiratory illness with a cough.

Circle the code corresponding to the response given. If the respondent says “He coughs all the time,” or “She’s been coughing for months,” do not count this as an ‘illness with a cough’ since it is a chronic problem. If the answer is ‘No’ or ‘DK’, circle the appropriate code and go to CA12. If the symptoms started before but continued into the 2-week period, this counts as ‘Yes’.

**CA6. WHEN (*name*) HAD AN ILLNESS WITH A COUGH, DID HE/SHE BREATHE FASTER THAN USUAL WITH SHORT, QUICK BREATHS OR HAVE DIFFICULTY BREATHING?**

**SURVEY COORDINATORS:** SOME SOCIETIES HAVE SPECIFIC WORDS FOR RAPID BREATHING. IN NORTHEAST BRAZIL, FOR EXAMPLE, ‘CANSEIRA’ – MEANING ‘TIREDNESS’ – IS SPECIFICALLY IDENTIFIED WITH THIS SYMPTOM. YOU SHOULD ESTABLISH A LIST OF CULTURALLY APPROPRIATE WORDS FOR RAPID BREATHING.

The question aims to find out if the child has or had an illness needing assessment by a health professional (as defined by the US Centers for Disease Control/Integrated Management of Childhood Illness programme).

If the respondent asks “What do you mean by ‘fast breathing’?” you may say “**NOTICEABLY FASTER THAN NORMAL WHEN THE CHILD IS RESTED.**” If the respondent asks “What do you mean by ‘difficulty breathing’?” you may say “**THE CHILD SOUNDED/LOOKED AS IF HE/SHE WAS HAVING TROUBLE BREATHING.**” You may give other explanations that were developed and tested during the adaptation and pre-testing of the questionnaire. Circle the code corresponding to the response. If the answer is ‘Yes’, continue to the next question. Otherwise, skip to CA12.

**CA7. WERE THE SYMPTOMS DUE TO A PROBLEM IN THE CHEST OR A BLOCKED NOSE?**

This question aims to find out if the problem needs assessment by a health professional, which does not include a simple cold.

Circle the code corresponding to the caretaker's response. If the symptoms were from a ‘Blocked nose’, skip to CA12. If the symptoms were due to ‘Other’ reasons, write the respondent’s description in the line provided, circle ‘6’ and skip to CA12. Otherwise, continue to the next question.

**CA8. DID YOU SEEK ADVICE OR TREATMENT FOR THE ILLNESS OUTSIDE THE HOME?**

‘Seeking care outside the home’ means going outside the family or household for advice or treatment. Seeking care could include anything from asking a neighbour for advice, to holding a religious ceremony on the child’s behalf, to going to a hospital. If a physician or other provider visits the household to give care, this counts as seeking care outside the home. The child may or may not have accompanied the respondent when he/she sought care. For example, going to buy medicine without the child counts as seeking care.

Circle the code corresponding to the response given. If the answer is ‘Yes’, continue to the next question. Otherwise, skip to CA10.

**CA9. FROM WHERE DID YOU SEEK CARE?**

After the first reply, ask: “**ANYWHERE ELSE?**” until all providers are mentioned. However, do not suggest or prompt any answers. Circle the code for every provider mentioned.



If the source of care is a hospital, health centre or clinic, write the name of the place in the space provided on the questionnaire. Ask whether the source is in the public (run by the government) or private sector. If the source is in the public sector, but is not one of the pre-coded choices, write the description in the space provided for 'Other public' and circle 'H'. Similarly, if the source is in the private medical sector, but is not one of the pre-coded choices, write the description in the space provided for 'Other private medical' and circle 'O'.

If the respondent answers that he/she sought care from another place not listed, write the description of the place in the space provided for 'Other' and circle 'X'. Then write the name of the place in the space provided on the questionnaire (*Name of place*) and tell your supervisor. Your supervisor will learn from other people in the community whether the place is public or private and then circle the code corresponding to the response.

**CA10. WAS (*name*) GIVEN MEDICINE TO TREAT THIS ILLNESS?**

Circle the appropriate code. If the answer is 'Yes', continue to the next question. Otherwise, go to CA12.

**CA11. WHAT MEDICINE WAS (*name*) GIVEN?**

This question aims to determine whether the child was given an antibiotic for the illness. More than one medicine may have been administered to the child. Circle the codes corresponding to all medicines given.

**SURVEY COORDINATORS:** THE RESPONDENT MAY NOT KNOW THE NAME OF THE MEDICINE OR WHETHER IT WAS AN ANTIBIOTIC OR ANOTHER MEDICINE. TALK TO EXPERTS AND COLLECT INFORMATION ON THE TYPE OF ANTIBIOTICS COMMONLY USED IN THE COUNTRY BEFORE YOU CUSTOMIZE YOUR QUESTIONNAIRE. DEVELOP THE RESPONSE CATEGORIES TO THIS QUESTION TO INCLUDE LOCALLY USED ANTIBIOTICS. DURING THE PRE-TEST, FIND OUT WHETHER THERE ARE OTHER CATEGORIES THAT NEED TO BE INCLUDED.

DEPENDING ON THE NUMBER OF DIFFERENT BRANDS USED IN THE COUNTRY, PROVIDE LISTS OF ANTIBIOTICS OR OTHER MEDICINES TO INTERVIEWERS. IF NECESSARY, PROVIDE THEM WITH SAMPLE PACKAGES OR PHOTOS OF PACKAGES OF ANTIBIOTICS AND OTHER MEDICINES. THESE MAY BE USED BY INTERVIEWERS DURING INTERVIEWS TO ASK RESPONDENTS TO IDENTIFY THE ONE(S) GIVEN TO THE CHILD.

If the respondent does not know the name of the medicine, ask him/her to show you the medicines. If he/she cannot show the packaged medicine, follow the guidelines provided to you during training.

If the respondent names a medicine that is not listed, circle 'X' for 'Other' medicine and fill in the name of the medicine in the space provided.

If you cannot determine the type of medicine given to the child with a cough, circle 'Z' for 'DK'.

**CA12. Check UF11: Child aged under 3?**

CA13 is used to filter out children aged 3, 4 and 5 years, since the next question is to be asked only of children under age three. Check UF11; if the child is under three (he/she is 0, 1 or 2 years old), mark

the box corresponding to 'Yes' and continue with the next question. If the child is not under three (she/he is 3, 4 or 5 years old), mark the box corresponding to 'No' and skip to CA14.

**CA13. THE LAST TIME (*name*) PASSED STOOLS, WHAT WAS DONE TO DISPOSE OF THE STOOLS?**

The purpose of this question is to know what was done with the most recent stools passed by the child in the household. The safe disposal of children's stools is of particular importance because children's stools are the most likely cause of faecal contamination to the immediate household environment. Correct disposal of stools is linked with lower risks of diarrhoea.

Respondents are asked where they usually dispose of their children's stools if the child did not use the toilet facility. Circle the most appropriate code.

**CA14. 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?**

This question asks for symptoms that would cause the respondent to take a child to a health facility right away.

Note that this question will only be asked once per mother/primary caretaker. If you are interviewing the same mother/primary caretaker for more than one child, ask this question when you interview her/him for the first child. Copy the response to this question to the same question in the questionnaire for the second child. If you are interviewing more than one mother/primary caretaker in the same household, ask the question once of each of the mothers/primary caretakers.

Circle the codes for the symptoms mentioned. If the caretaker mentions a few signs and stops, continue by asking "ANY OTHERS?" until the caretaker cannot recall any additional symptoms, but do not prompt with any suggestions. Circle the codes corresponding to all symptoms mentioned. If you are not sure whether a certain sign as reported by the respondent fits in one of the above categories, write it down in full and check with your supervisor later.

## IMMUNIZATION MODULE

**SURVEY COORDINATORS:** PROCEDURES FOR COMPLETING THIS MODULE ARE SOMEWHAT MORE COMPLICATED THAN MOST OTHER MODULES IN THE MICS3 QUESTIONNAIRES. MAKE SURE TO HAVE INTERVIEWERS PRACTISE THE ADMINISTRATION OF THE MODULE DURING TRAINING BY USING REAL VACCINATION CARDS. READING AND UNDERSTANDING VACCINATION CARDS USUALLY REQUIRES CONSIDERABLE PRACTICE.

This module is used to obtain the percentage of children under five who have received BCG, DPT3, OPV3, measles and other immunizations before age one.

**SURVEY COORDINATORS:** YOU SHOULD COLLECT INFORMATION ON A NUMBER OF ISSUES REGARDING IMMUNIZATION IN YOUR COUNTRY. SPECIFICALLY YOU SHOULD:

1. OBTAIN CHILD IMMUNIZATION CARDS USED IN YOUR COUNTRY, AND ADAPT THE MODULE ACCORDINGLY.
2. OBTAIN THE MOST RECENT NATIONAL IMMUNIZATION SCHEDULE FOR CHILDREN, AND REFLECT THE SCHEDULE IN THE MODULE.
3. FIND OUT IF ANY IMMUNIZATION CAMPAIGNS (FOR EXAMPLE, NATIONAL IMMUNIZATION DAYS FOR POLIO, MEASLES CAMPAIGNS, OTHER CAMPAIGNS SUCH AS YELLOW FEVER) WERE CARRIED OUT IN THE PREVIOUS YEAR.

BASED ON THIS INFORMATION, YOU SHOULD ADAPT THE IMMUNIZATION MODULE TO YOUR COUNTRY, CORRECTING COMBINATIONS OF VACCINES IF NECESSARY (HEPB1 OR DPTHEB1, FOR INSTANCE), OMITTING 'EXTRA' ANTIGENS IF NOT INCLUDED IN THE IMMUNIZATION SCHEDULE (SUCH AS YELLOW FEVER), OMITTING VITAMIN A (IF NOT RECORDED ON VACCINATION CARDS), REFLECTING THE IMMUNIZATION SCHEDULE TO THE QUESTIONS (SUCH AS CHANGING THE APPROPRIATE AGE RECOMMENDED FOR MEASLES AND YELLOW FEVER VACCINES), OR ADDING OTHER VACCINES (SUCH AS H1B). SEE THE COMMENTS IN THE MODEL QUESTIONNAIRE FOR NOTES ON ADAPTATION OF THE MODULE. THE VACCINES LISTED IN THE QUESTIONNAIRE ARE EXAMPLES ONLY.

### IM1. IS THERE A VACCINATION CARD FOR *(name)*?

If the respondent reports that there is a vaccination card for the child, ask to see it. You should have obtained vaccination cards at the beginning of the interview. If you did not already obtain the card for the child, now is the time to ask for it again.

In some cases, the respondent may not be willing to take time to look for the vaccination card, thinking that you are in a hurry. Encourage the respondent to look for the vaccination card for the child. It is critical to obtain written documentation of the child's immunization history. Therefore, be patient if the respondent needs to search for the card.

If the respondent does not have a vaccination card but the vaccine doses are registered in another document (for example, a booklet with records of clinic visits), ask to see it. If the card or other document is seen, circle '1' and continue to the next question. If the card or other document is not seen, circle '2' and skip to IM10 – you will be asking the respondent to recall the child's vaccinations. If the respondent does not have a vaccination card or any other document where the vaccine doses are registered for the child, circle '3' and skip to IM10.

**Questions IM2-IM8B**

You will complete questions from IM2 through IM8B when respondents show you the vaccination card for the child:

- Copy the dates in the spaces provided for IM2-IM8B for each type of immunization or vitamin A dose recorded on the card or document.
- If the card shows only part of the date, record '98' for 'DK' in the column for which the information is not given. For example, if the date given was July 2004, you would record '98' for 'Day', '07' for 'Month', and '2004' for 'Year'.
- If the card shows that a vaccination or vitamin A dose was administered but the date is not specified, write '44' in the day column, and leave the month and year columns blank.
- However, if a date is given for a DPT vaccination and there is simply a check to show that a polio vaccine was also given, record the date of the DPT injection on the polio line since this probably indicates that the vaccinations were given on the same day.

Remember that vaccines may be listed on the card in a different order than the one that appears on the questionnaire. Be sure to check the card carefully because sometimes the month may be listed first, sometimes the day. Be careful to record the dates correctly.

Besides recording vaccination dates on the card, some health facilities may also record the dates (appointments) that children should be brought in for their next immunizations. Be very careful not to record a scheduled appointment date as a vaccination date. It is possible that an appointment date was given, but the child never received the vaccination. Only record dates that vaccinations were actually given, and not date of appointments. Be patient and read the card thoroughly. It is very important that you copy the information on administered vaccinations on the card to the questionnaire accurately.

After you have completed transferring the information from the card to the questionnaire, proceed with question IM9.

**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?**

It is possible that some of the vaccinations received by the child were not recorded. For example, the respondent may have forgotten to bring the card to the health facility or the respondent may have taken (name) to a National Immunization Day.

If the answer is 'Yes', circle '1' only if the respondent mentions vaccines included in the questionnaire. You can refer to the information already obtained from the vaccination card to make sure that the mother/primary caretaker is referring only to these vaccines. Write '66' in the corresponding 'Day' column for IM2-IM8B, and leave the month and year columns blank. For example, if two doses of DPT were recorded on the card, and another dose was given but not recorded, the answer to IM4C should be '66' in the 'Day' column.

Do not ask the respondent to supply dates from memory. Enter a date only if the card or other document is available and lists a date for the immunization dose.

Once you have probed for all vaccinations, skip to IM19.

Questions IM10 through IM18 are asked only to mothers/primary caretakers of children who do not have vaccination cards, or those children for whom vaccination cards were not shown.

**IM10. HAS (*name*) EVER RECEIVED ANY VACCINATIONS TO PREVENT HIM/HER FROM GETTING DISEASES, INCLUDING VACCINATIONS RECEIVED IN A CAMPAIGN OR IMMUNIZATION DAY?**

Only ask IM10-18 to obtain the child's vaccination status if a vaccination card or other document is not available (that is, if the answer to IM1 was '2' for 'Yes', 'Not seen' or '3' for 'No'). Describe the vaccination techniques in detail to the caretaker and provide further explanations if needed. When mentioning the vaccines or the specific diseases, use local synonyms if needed. We are not interested in injections for treating a disease – antibiotics, antimalarials, etc. – but only in vaccines.

Circle the code corresponding to the response. If the answer is 'Yes', continue to the next question, to start asking about each of the vaccines. If the answer is 'No' or 'DK', skip to 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?**

**SURVEY COORDINATORS:** ADAPT LOCALLY, USING THE MOST COMMON VACCINATION SITE AND SCHEDULE USED IN THE COUNTRY.

Circle the code corresponding to the response.

**IM12. HAS (*name*) EVER BEEN GIVEN ANY 'VACCINATION DROPS IN THE MOUTH' TO PROTECT HIM/HER FROM GETTING DISEASES – THAT IS, POLIO?**

Circle the code corresponding to the response. If the answer is 'Yes', continue to the next question. If the answer is 'No' or 'DK', skip to IM15.

**IM13. HOW OLD WAS HE/SHE WHEN THE FIRST DOSE WAS GIVEN – JUST AFTER BIRTH (WITHIN TWO WEEKS) OR LATER?**

Ask how old the child was at first dose, prompting "JUST AFTER BIRTH OR LATER?" Circle the code corresponding to the response.

**IM14. HOW MANY TIMES HAS HE/SHE BEEN GIVEN THESE DROPS?**

Fill in the number in the space provided.

**IM15. HAS (*name*) EVER BEEN GIVEN 'DPT VACCINATION INJECTIONS' – THAT IS, AN INJECTION IN THE THIGH OR BUTTOCKS – TO PREVENT HIM/HER FROM GETTING TETANUS, WHOOPING COUGH, DIPHTHERIA? (SOMETIMES GIVEN AT THE SAME TIME AS POLIO)**

**SURVEY COORDINATORS:** ADAPT LOCALLY, USING THE MOST COMMON VACCINATION SITE AND SCHEDULE USED IN THE COUNTRY.

Circle the code corresponding to the response. If the answer is 'Yes', continue to the next question. If 'No' or 'DK', skip to IM17.

**IM16. HOW MANY TIMES?**

Fill in the number in the space provided.

**IM17. HAS (*name*) EVER BEEN GIVEN ‘MEASLES VACCINATION INJECTIONS’ – THAT IS, A SHOT IN THE ARM AT THE AGE OF 9 MONTHS OR OLDER – TO PREVENT HIM/HER FROM GETTING MEASLES?**

**SURVEY COORDINATORS:** MEASLES VACCINE IS NORMALLY GIVEN AS AN INJECTION IN THE ARM AT THE AGE OF 9 MONTHS. IN SOME COUNTRIES, SOME CHILDREN MAY RECEIVE IT AS AN INJECTION IN THE THIGH. IN SOME COUNTRIES, MEASLES VACCINE IS ADMINISTERED AT 15 MONTHS OF AGE. THE APPROPRIATE AGE FOR AND LOCATION OF THE INJECTION SHOULD BE ADAPTED TO THE RECOMMENDATIONS FOR THE MEASLES VACCINATION IN YOUR COUNTRY.

Circle the code corresponding to the response. If the caretaker specifically mentions measles vaccine but refers to an injection in the thigh, accept the answer as valid and circle ‘1’ for ‘Yes’.

**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)**

**SURVEY COORDINATORS:** THIS IS AN OPTIONAL QUESTION FOR USE IN COUNTRIES AFFECTED BY YELLOW FEVER. THE AGE SHOULD BE ADAPTED TO THE APPROPRIATE AGE RECOMMENDED FOR YELLOW FEVER VACCINATION. ALSO ADAPT LOCALLY TO REFERENCE THE MOST COMMON VACCINATION SITE.

Circle the code corresponding to the response.

**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.**

**SURVEY COORDINATORS:** YOU MUST INSERT THE DATES AND TYPES OF VACCINATION GIVEN IN THE MOST RECENT NATIONAL IMMUNIZATION DAY (NID) CAMPAIGNS IN YOUR COUNTRY. IF POSSIBLE, INCLUDE THE SEASON IN WHICH EACH NID TOOK PLACE, BECAUSE SOME RESPONDENTS MAY NOT BE ABLE TO IDENTIFY A PRECISE DATE.

This question is asked to provide information about immunization programmes. It also provides a check on IM9 for children with a vaccination card, since doses given in National Immunization Days are usually not recorded on the card.

Circle the code corresponding to the response. If the respondent answers ‘Yes’ here to at least one of the dates, check back to IM9. If the answer given there (to IM9) was ‘No’, ask again.

**SURVEY COORDINATORS:** IN SOME COUNTRIES, VACCINATION CARDS MAY BE KEPT ONLY AT HEALTH FACILITIES, AND NOT GIVEN TO MOTHERS/PRIMARY CARETAKERS. IF SO, YOU SHOULD MAKE ARRANGEMENTS TO HAVE FIELDWORK TEAMS VISIT HEALTH FACILITIES TO COLLECT THIS INFORMATION.

SPECIFICALLY, INTERVIEWERS SHOULD ADMINISTER THE MODULE TO MOTHERS/PRIMARY CARETAKERS, CIRCLING '2' FOR IM1 IN SUCH CASES, AND ASKING QUESTIONS IM10-IM19 TO OBTAIN THE RECALL INFORMATION IN IMMUNIZATIONS.

PRINT AND GIVE FIELDWORK TEAMS IMMUNIZATION FORMS, REPLICATING THE MODULE UP TO AND INCLUDING IM8B. FIELDWORK TEAMS SHOULD VISIT THE HEALTH FACILITY WHERE VACCINATION CARDS ARE KEPT, IDENTIFY THE CARDS FOR CHILDREN INCLUDED IN THE SURVEY, AND FILL OUT THE FORM ACCORDING TO INFORMATION ON THE CARD.

MAKE SURE TO INCLUDE, AT THE TOP OF THE PAGE, IDENTIFICATION INFORMATION THAT WILL LATER ALLOW YOU TO MATCH THE VACCINATION FORMS WITH THE QUESTIONNAIRES – QUESTIONS UF1 TO UF8.

IF YOU THINK THAT ALMOST ALL QUESTIONNAIRES WILL BE COMPLETED BY VISITING HEALTH FACILITIES, DO NOT PRODUCE A SEPARATE IMMUNIZATION FORM. ADAPT IM1 TO ALLOW FOR CODING WHETHER THE VACCINATION CARD WAS SHOWN BY THE MOTHER OR SEEN AT THE HEALTH FACILITY. COMPLETE THE REST OF THE QUESTIONS AS APPROPRIATE.

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

When you have finished asking the questions in the immunization module, thank the respondent. Check whether she/he is the mother or primary caretaker of any other children that live with her and are under the age of 5 years by checking the Household Questionnaire, column HL8, for the respondent's line number. If so, start interviewing her/him with the Questionnaire for Children Under Five for other children.

If this respondent is not the mother or primary caretaker of any other children under five in the household, mark the box corresponding to 'No'. Proceed to administer the Anthropometry module for all children in the household. Continue until you have completed questionnaires for all children in the household.

**ANTHROPOMETRY MODULE<sup>1</sup>**

Weights and heights of all eligible children under five in the household will be measured after all the Questionnaires for Children Under Five are completed. However, if some respondents or children have to leave the household before all questionnaires in the household have been completed, or if a call-back has to be made to interview another respondent, it is best to complete the measurements on those children who are present. The most important thing is not to miss measuring those who are eligible.

Measurement of heights and weights will normally be the responsibility of field editors. Each fieldwork team will have one set of measuring boards and weighing scales. Therefore, once you have completed the questionnaires and are ready to start anthropometric measurements, you should call upon field editors to join you in the household, together with the equipment.

Although the field editor will be the main team member responsible for anthropometric measurements, you will also receive training on how to weigh and measure children. In some cases, the entrance of field editors to the household may not be possible; in such cases, you may yourself perform the measurements, with the assistance of the mother.

Each child will be weighed and measured, and the results will be recorded in his/her questionnaire. Be sure the weight for each child is recorded on the correct questionnaire. Procedures for weight and height measurements are discussed in detail in Appendix Five. This section is confined to explaining how the results will be coded.

**AN1. Child's weight**

The child should be weighed according to the instructions given during training. Record the result to the nearest tenth of a kilogram (100 grams). Place the kilograms to the left of the decimal point and grams to the right of the decimal point. Use a leading zero if the number of kilograms is one digit.

**AN2. Child's length or height**

Check the age of the child in UF11. If the child is under 2 years old, check the appropriate box, measure and record recumbent length (that is, lying down), to the nearest tenth of a centimetre. If the child is age two or older, check the corresponding box and then measure and record standing height. Write a zero first if the number of centimetres is two digits.

**AN3. Measurer's identification code**

You should enter the two-digit identification number of the person who performed the measurements in the space provided. This would normally be the field editor or yourself.

**AN4. Result of measurement**

Circle the appropriate code corresponding to the result of the measurement. If the reason is 'Other', write a description in the line provided and circle '6'.

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<sup>1</sup>For more details on anthropometric techniques, see *Assessing the Nutritional Status of Young Children*, DP/UN/INT-88-X01/8E, New York: UN National Household Survey Capability Programme, 1990; *Demographic and Health Surveys Interviewer's Manual*, DHS-II Basic Documentation-4, Colombia, Md: Institute for Resource Development, 1990; and *How to Weigh and Measure Children*, DP/UN/INT-81-041-6E, New York: UN National Household Survey Capability Programme, 1986, a summary of which is included in Appendix Five of this manual.



**AN5. *Is there another child in the household who is eligible for measurement?***

If there is another child in the household who is eligible for measurement, check the box marked 'Yes' and record measurements for the next child on that child's questionnaire. If 'No', check the appropriate box and end the interview with this household by thanking all participants for their cooperation.

After you have completed all anthropometric measurements in the household, you should record the results of the interviews in UF9 of the Under-Five Child Information Panel on each child's questionnaire.

Gather together all questionnaires for this household.

Tally the number of women's questionnaires completed in HH13 and the number of child questionnaires completed in HH15 of the Household Information Panel of the Household Questionnaire.

Before you leave the dwelling, check to ensure that the entire questionnaire (including all modules) is completed and that there are no blanks left. Be sure to distinguish between true zero answers and missing data or 'DK' answers. Make sure that all identifying numbers have been filled in on the Information Panels of each questionnaire. Give the questionnaires to your supervisor.

## ADDITIONAL MODULES FOR THE QUESTIONNAIRE FOR CHILDREN UNDER FIVE

**SURVEY COORDINATORS:** THERE IS ONLY ONE ADDITIONAL MODULE FOR THE QUESTIONNAIRE FOR CHILDREN UNDER FIVE – MALARIA MODULE FOR UNDER-FIVES. THIS MODULE SHOULD BE INSERTED INTO THE QUESTIONNAIRE, BETWEEN THE CARE OF ILLNESS AND IMMUNIZATION MODULES.

### MALARIA MODULE FOR UNDER-FIVES

Most children living in areas with malaria experience their first malaria infections during the first year or two of life, when they have not yet acquired adequate clinical immunity. In these young children, the disease can progress rapidly to severe malaria and death. About 90 per cent of deaths due to malaria are among children under 5 years of age. The World Health Organization recommends that all children under age five be presumptively treated with antimalarial medication within 24 hours of the onset of fever to prevent severe malaria and death.

**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?**

Fever is a symptom of malaria, and in areas where malaria is prevalent, mothers are advised to take action to treat for malaria as soon as fever begins.

When asking this question, insert the name of the day of the interview. For example, if the interview is taking place on a Tuesday, ask: **“IN THE LAST TWO WEEKS, THAT IS, SINCE TUESDAY OF THE WEEK BEFORE LAST, HAS (*name*) BEEN ILL WITH A FEVER?”**

Circle the code corresponding to the answer given. Circle the code corresponding to ‘Yes’ only if the child has been ill with a fever at any time in the 2 weeks prior to the date of the interview. If the child has not been ill with a fever or the respondent doesn’t know, skip to ML10.

**ML2. WAS (*name*) SEEN AT A HEALTH FACILITY DURING THIS ILLNESS?**

Circle the code corresponding to the answer given. If the child was not seen at a health facility during this illness or the mother/primary caretaker doesn’t know, skip to ML6.

**ML3. DID (*name*) TAKE A MEDICINE FOR FEVER OR MALARIA THAT WAS PROVIDED OR PRESCRIBED AT THE HEALTH FACILITY?**

Circle the code corresponding to the answer given. If the child did not take any medicine for the fever or malaria that was provided or prescribed at the health facility, or if the mother/primary caretaker does not know, skip to ML5.

**ML4. WHAT MEDICINE DID (*name*) TAKE THAT WAS PROVIDED OR PRESCRIBED AT THE HEALTH FACILITY?**

**SURVEY COORDINATORS:** DEVELOP CATEGORIES TO INCLUDE LOCALLY USED MEDICINES AND THEN PRE-TEST. GIVE INTERVIEWERS SAMPLE PACKAGES OF COMMONLY USED ANTIMALARIALS AND OTHER MEDICINES, OR PRINT PHOTOGRAPHS OF PACKAGES TO GIVE TO INTERVIEWERS. THIS MIGHT HELP RESPONDENTS REMEMBER THE MEDICATION GIVEN TO THE CHILD.

Circle the codes corresponding to all medicines taken by the child to treat the fever, both antimalarials and other types of medicines such as acetaminophen that were provided or prescribed at the health facility. If the respondent cannot remember the names of all the medicines the child took, use the following approach to probe for the correct names of the antimalarial and other types of medicines taken:

- (1) Ask to see the package of leftover medicines; some households keep popular antimalarial and other medicines at home.
- (2) Show the respondent a sample of each common antimalarial – from both public and private sources – in the original packages, in case some respondents remember the containers.
- (3) Use common brand names when asking the respondent about antimalarial medicines.

If the medicine is an antimalarial but is not listed, circle 'H' and fill in the name in the space provided. If the medicine is another type of medicine, but is not listed, circle 'X' and fill in the name in the space provided. If the mother/primary caretaker still doesn't know, circle 'Z'.

**ML5. WAS (*name*) GIVEN MEDICINE FOR THE FEVER OR MALARIA BEFORE BEING TAKEN TO THE HEALTH FACILITY?**

This question is only asked if the child was seen at a health facility during the illness (ML2 = 1).

Circle the code corresponding to the answer given. If the response is 'Yes', skip to ML7 to learn the type of medicine given. If the child did not take any medicine for the fever or malaria before being taken to the health facility, or the respondent doesn't know, skip to ML8.

Note that all response categories to this question skip ML6, to go to either ML7 or ML8.

**ML6. WAS (*name*) GIVEN MEDICINE FOR FEVER OR MALARIA DURING THIS ILLNESS?**

This question is only asked if the child was not taken to a health facility during the illness causing fever (ML2 = 2 or 8).

Circle the code corresponding to the answer given. If the child was not given any medicine for the fever or malaria during this illness or the respondent does not know, circle the appropriate code and skip to ML8. Otherwise, continue to the next question.

**ML7. WHAT MEDICINE WAS (*name*) GIVEN?**

**SURVEY COORDINATORS:** DEVELOP CATEGORIES TO INCLUDE LOCALLY USED MEDICINES AND THEN PRE-TEST. GIVE INTERVIEWERS SAMPLE PACKAGES OF COMMONLY USED ANTIMALARIALS AND OTHER MEDICINES, OR PRINT PHOTOGRAPHS OF PACKAGES TO GIVE TO INTERVIEWERS. THIS MIGHT HELP RESPONDENTS REMEMBER THE MEDICATION GIVEN TO THE CHILD.

Circle the codes corresponding to all medicines taken by the child to treat the fever, both antimalarials and other types of medicines such as acetaminophen given during this illness. If the respondent cannot remember the names of all the medicines the child took, use the following approach to probe for the correct names of the antimalarial or other types of medicines taken:

- (1) Ask to see the package of leftover medicines; some households keep popular antimalarial and other medicines at home.
- (2) Show the respondent a sample of each common antimalarial – from both public and private sources – in the original packages, in case some respondents remember the containers.
- (3) Use common brand names when asking the respondent about antimalarial medicines.

If the medicine is an antimalarial but is not listed, circle 'H' and fill in the name in the space provided. If the medicine is another type of medicine, but is not listed, circle 'X' and fill in the name in the space provided. If the mother/primary caretaker still doesn't know, circle 'Z'.

**ML8. Check ML4 and ML7: Antimalarial mentioned (codes A-H)?**

If an antimalarial was mentioned either in ML4 or ML7 (codes A-H), check the box marked 'Yes' and continue to the next question. If 'No', check the corresponding box and skip to ML10.

**ML9. HOW LONG AFTER THE FEVER STARTED DID (name) FIRST TAKE (name of antimalarial from ML4 or ML7)?**

This question asks about the time interval between the beginning of the child's fever and when he/she took the first dose of an antimalarial medicine to treat the fever.

If multiple antimalarial medicines are mentioned in ML4 or ML7, name all antimalarials mentioned. Record the code for the day on which an antimalarial was given for the **first** time. If he/she started taking (the antimalarial) the same day the fever started, circle '0' for 'Same day'. If the antimalarial was first given the next day (the day after the fever began), circle '1' for 'Next day' and so on. If the respondent does not know how long after the fever started the child first took the antimalarial, circle '8'.

**ML10. DID (name) SLEEP UNDER A MOSQUITO NET LAST NIGHT?**

Ask the respondent if (name) slept under a mosquito net the previous night and circle the code corresponding to the answer given. If the respondent answers that the child did not sleep under a mosquito net last night or that he/she does not know, circle the appropriate code and skip to the next module. Otherwise, continue to the next question.

You will have asked about mosquito nets in the household to the respondent to the Household Questionnaire. Some similar questions are asked here, from ML11 to ML15. Note that these questions are asked of the net the child slept under the previous night, which might not necessarily be the mosquito net for which detailed information was collected in the ITN module of the Household Questionnaire.

**ML11. HOW LONG AGO DID YOUR HOUSEHOLD OBTAIN THE MOSQUITO NET?**

If the net that the child slept under the previous night was obtained within the last 2 years (24 months), calculate the number of months from the respondent's answer and record the number of months in the space provided. If the net was obtained within the last month, enter '00' in the spaces provided.

For example, if the respondent says "We bought that net a year and a half ago, during the planting season," the first step is to add 12 months for each year mentioned (1 year = 12 months). The season mentioned by the respondent was the 'planting season'. Using this memory cue, ask the respondent to be more precise about which month the net was purchased: Ask whether it was the beginning, middle

or end of planting season or which planting season it was if there is more than one. If the respondent says that he or she bought it “at the beginning of the planting season in April” and it is October at the time of the interview, count the number of months between April and October, not counting the month of purchase (May, June, July, August, September, October = 6 months. Then add the sums: 12 months + 6 months = 18 months, and record ‘18’ in the space provided).

If the net was obtained more than 2 years ago, circle ‘95.’ If the respondent does not know the exact number of months, probe to obtain the best estimate. If the respondent says “a year ago,” probe to try to determine if the net was obtained exactly 12 months ago, or earlier or later. Circle ‘98’ for ‘Not sure’ only if the respondent cannot even estimate how long ago the net was obtained.

#### **ML12. WHAT BRAND IS THIS NET?**

**SURVEY COORDINATORS:** CONSULT THE NATIONAL MALARIA CONTROL PROGRAMME FOR ASSISTANCE IN IDENTIFYING BRANDS OF MOSQUITO NETS AND OBTAINING PHOTOGRAPHS AND/OR DESCRIPTIONS OF BRAND LOGOS TO SERVE AS AIDS IN THE FIELD.

INSERT THE BRAND NAMES OF PERMANENTLY TREATED NETS AND PRE-TREATED NETS AVAILABLE IN THE COUNTRY IN THE RESPONSE CATEGORIES.

There are various types and brands of mosquito nets. Some require regular treatment with insecticide; others are factory treated and do not require any treatment for 6-12 months (pre-treated type) or 36 months (permanent type). By observing the mosquito nets yourself, you should be able to identify what brands or types of mosquito nets households own, but respondents may not always permit you to enter the sleeping areas where the nets are found. Your supervisor may provide you with photographs to help you to distinguish different brands of mosquito nets. In order to assess the effectiveness of mosquito net use in preventing malaria, we need to gather accurate information on the type of nets, and whether and when they were last treated with insecticide.

Identify the type of net in the dwelling and circle the corresponding number on the questionnaire. If the respondent is not sure whether a net is one of these brands, try to observe the net, if possible. If it is not possible to observe the net(s), use the pictures you were given to aid in identification.

If it is a permanently treated net (codes ‘11’ or ‘12’), skip to the next module. If it is a pre-treated net (codes ‘21’ or ‘22’), skip to ML14. If it is some other brand that is not listed, circle ‘36’ and fill in the other brand name in the space provided. If the respondent does not know the type of net or the brand, circle ‘98’ for ‘DK brand’.

#### **ML13. WHEN YOU GOT THAT NET, WAS IT ALREADY TREATED WITH AN INSECTICIDE TO KILL OR REPEL MOSQUITOES?**

Circle the code corresponding to the answer given.

#### **ML14. SINCE YOU GOT THE MOSQUITO NET, WAS IT EVER SOAKED OR DIPPED IN A LIQUID TO KILL/REPEL MOSQUITOES OR BUGS?**

Make sure that the respondent understands that you don’t mean simply ‘washing the net’ or spraying it with insecticide from a can or canister. We want to know whether the net was soaked or dipped in an insecticide.

Circle the code corresponding to the answer given. If 'No' or 'DK', skip to the next module.

**ML15. HOW LONG AGO WAS THE NET LAST SOAKED OR DIPPED?**

If the last time was within the last 2 years (24 months), record the number of months ago in the space provided. If the last time was less than 1 month ago, record '00'. If the last time was more than 2 years ago, circle '95'. If the respondent does not know the number of months, probe to obtain his/her best estimate. Circle '98' for 'Not sure' only if the respondent cannot even estimate when the net was last soaked or dipped. If the respondent says 'a year ago', probe to try to determine if the net was obtained exactly 12 months ago, or earlier or later.

## OPTIONAL MODULES FOR THE QUESTIONNAIRE FOR CHILDREN UNDER FIVE

**SURVEY COORDINATORS:** OPTIONAL MODULES SHOULD BE ADDED TO THE QUESTIONNAIRE IN COUNTRIES WHERE THEY ARE OF PARTICULAR RELEVANCE AND USE TO THE COUNTRY. YOU SHOULD ASCERTAIN THAT THERE IS INTEREST IN THESE MODULES FROM THE GOVERNMENT OR OTHER STAKEHOLDERS, AND THAT THEIR RESULTS WILL BE USED FOR PROGRAMMATIC OR OTHER PURPOSES, BEFORE YOU DECIDE TO USE THESE MODULES IN YOUR SURVEY.

IN SOME CASES, OPTIONAL MODULES REPLACE A CORE MODULE IN THE UNDER-FIVE'S QUESTIONNAIRE; IN OTHERS, AN OPTIONAL MODULE MAY SIMPLY BE ADDED TO THE QUESTIONNAIRE. OPTIONAL MODULES ARE SOMETIMES COMPOSED OF ONLY A FEW QUESTIONS THAT CAN BE INSERTED INTO ONE OF THE CORE OR ADDITIONAL MODULES. CHECK CHAPTER 3 AND APPENDIX TWO TO SEE WHERE EACH OF THE OPTIONAL MODULES SHOULD BE PLACED.

### CHILD DEVELOPMENT MODULE

**SURVEY COORDINATORS:** IF THIS MODULE IS INCLUDED, IT SHOULD FOLLOW THE BIRTH REGISTRATION AND EARLY LEARNING MODULE IN THE QUESTIONNAIRE FOR CHILDREN UNDER FIVE.

The questions in this module are used to obtain information about the extent to which households provide a supportive and stimulating learning environment. The first two questions are about books in the household; the third question is about things that the child plays with; the last two questions are about whether the child is left alone or left with another child as a caregiver.

#### **CE1. HOW MANY BOOKS ARE THERE IN THE HOUSEHOLD? PLEASE INCLUDE SCHOOLBOOKS, BUT NOT OTHER BOOKS MEANT FOR CHILDREN, SUCH AS PICTURE BOOKS.**

This question asks for the number of books in the household, including schoolbooks and books for older children, but not picture books or books especially meant for young children.

Note that this question will only be asked once per mother/primary caretaker. If you are interviewing the same mother/primary caretaker for more than one child, ask this question when you interview her/him for the first child. Copy the response to this question to the same question in the questionnaire for the second child. If you are interviewing more than one mother/primary caretaker in the same household, ask the question once of each of the mothers/primary caretakers. Note that their responses to the number of books in the same household may be different.

Record the number of books in the space provided. There is no need to make an actual count of books yourself. Rely on the respondent's answer, and avoid asking to see and count the books yourself, since this is likely to require extra time. If the respondent is unsure about the number of books and is not able to provide an answer the first time you ask the question, ask her/him if there are more than 10 books. If yes, circle '10'. If she/he says that there are less than 10 books, probe further to get an exact number. If there are no such books in the household, record '00'.

#### **CE2. HOW MANY CHILDREN'S BOOKS OR PICTURE BOOKS DO YOU HAVE FOR (*name*)?**

This question asks specifically about children's books or picture books for the child. This excludes schoolbooks (appropriate for or belonging to older children), as well as other books for adults that are

present in the household. Those books for older children and adults are already included in the previous question, CE1.

Record the number of books in the space provided. There is no need to make an actual count of books yourself. Rely on the respondent's answer, and avoid asking to see and count the books yourself, since this is likely to require extra time. If the respondent is unsure about the number of children's books or picture books and is not able to provide an answer the first time you ask the question, ask her/him if there are more than 10 such books. If yes, circle '10'. If she/he says that there are less than 10 such books, probe further to get an exact number. If there are no such books in the household, record '00'.

**CE3. I AM INTERESTED IN LEARNING ABOUT THE THINGS THAT (*name*) PLAYS WITH WHEN HE/SHE IS AT HOME. WHAT DOES (*name*) PLAY WITH?**

This question is used to learn about different types of playthings used by the child. We want to know if the child has objects to play with, and what these are, even if they do not include store-bought toys. We are interested in learning about other objects that are used as playthings, such as ordinary household objects and natural materials.

Extra care should be taken to ask this question and record the responses. Experience has shown that respondents find it very easy to give the same answer to a list of different playthings. Often they will answer 'Yes' to all items, whether or not it is true, perhaps because they think this is the 'correct' response or one that will please the interviewer.

After asking **"WHAT DOES (*name*) PLAY WITH?"** do not pause; start asking whether the child plays with playthings from each of the categories listed. For example, ask: **"DOES HE/SHE PLAY WITH HOUSEHOLD OBJECTS, SUCH AS BOWLS, PLATES, CUPS OR POTS?"** and so on.

If the respondent answers 'Yes' to any of these prompted categories, then probe to learn specifically what the child plays with to ascertain the response. For example, probe by saying **"WHAT DOES HE/SHE SPECIFICALLY PLAY WITH?"** or **"CAN YOU PLEASE GIVE AN EXAMPLE?"** If you ascertain that the child uses playthings that would fall into each of the prompted categories, circle the appropriate code.

Circle 'Y' if the child does not play with any of the items mentioned. Note that if 'Y' is circled, none of the other codes should be circled.

**CE4. SOMETIMES ADULTS TAKING CARE OF CHILDREN HAVE TO LEAVE THE HOUSE TO GO SHOPPING, WASH CLOTHES, OR FOR OTHER REASONS AND HAVE TO LEAVE YOUNG CHILDREN WITH OTHERS. SINCE LAST (*day of the week*), HOW MANY TIMES WAS (*name*) LEFT IN THE CARE OF ANOTHER CHILD (THAT IS, SOMEONE LESS THAN 10 YEARS OLD)?**

This and the following question are used to assess whether children are at increased risk, either because they are left alone or are left with a child as caregiver. These situations have been shown to be associated with higher risk for children, although there are many exceptions.

The question sets up a hypothetical situation, one in which the mother/primary caretaker would be gone for more than just a moment – situations in which the child could be left alone for an hour or more. The question specifies that we want to know about situations in which the respondent actually



leaves the premises, not simply going out of sight of the child, such as to another part or another room of the house.

When asking this question, insert the name of the day of the interview. For example, if the interview is taking place on a Tuesday, ask: “**SINCE LAST TUESDAY...**” Enter the response in the spaces provided. If the child was not left in the care of another child during this period, enter ‘00’ for ‘None’. Note that ‘another child’ is defined as a child less than 10 years old.

**CE5. IN THE PAST WEEK, HOW MANY TIMES WAS (*name*) LEFT ALONE?**

This question asks, given the same situation as in CE4, whether and how many times the child was left completely unattended, even by another child.

As in CE4, make it clear to the respondent that you are asking only about the week previous to the day of interview. Enter the response in the spaces provided. If the answer is ‘None’, enter ‘00’.

**SOURCE AND COST OF SUPPLIES FOR ORS PACKETS**

**SURVEY COORDINATORS:** THE FOLLOWING QUESTIONS ON THE SOURCE AND COST OF ORAL REHYDRATION SOLUTION (ORS) PACKETS SHOULD BE ADDED TO THE CARE OF ILLNESS MODULE, FOLLOWING QUESTION CA4. COPY THESE INSTRUCTIONS TO THOSE FOR THE CARE OF ILLNESS MODULE.

**CA4A. Check CA2A: ORS packet used?**

Check CA2A. If CA2A =1, check the box marked 'Yes', and continue to CA4B. If 'No', skip to CA5.

**CA4B. WHERE DID YOU GET THE (*local name for ORS packet from CA2A*)?**

**SURVEY COORDINATORS:** CODING CATEGORIES SHOULD BE DEVELOPED LOCALLY AND REVISED BASED ON THE PRE-TEST. HOWEVER, THE BROAD CATEGORIES MUST BE MAINTAINED.

The intent of this question is to identify where the ORS packet was obtained. Circle the code corresponding to the answer given. If the respondent obtained the ORS packet from a medical sector source, ask whether the place is in the public (run by the government) or private sector. If the place is in the public sector, but is not one of the pre-coded choices, write the description in the space provided for 'Other public' and circle '16'. Similarly, if the place is in the private medical sector, but is not one of the pre-coded categories, write the description in the space provided for 'Other private medical' and circle '26'.

If the respondent answers that the ORS packet was obtained from another place not listed, write the description of the place in the space provided for 'Other' and circle '96'. Then notify your supervisor. Your supervisor will learn from other people in the community whether the place is public or private and then circle the code corresponding to the response. Circle '98' if the respondent does not know where the ORS packet was obtained.

**CA4C. HOW MUCH DID YOU PAY FOR THE (*local name for ORS packet from CA2A*)?**

**SURVEY COORDINATORS:** CUSTOMIZE THIS QUESTION IN ACCORDANCE WITH THE CURRENCY USED IN THE COUNTRY. IF FOUR DIGITS WILL BE SUFFICIENT TO CAPTURE THE PRICE OF ORS, DO NOT CHANGE THE RESPONSE CODES. IF FIVE DIGITS WILL BE NECESSARY, FOR INSTANCE, MAKE SURE TO INCREASE THE NUMBER OF LINES PROVIDED IN THE RESPONSES TO FIVE, AND CHANGE '9996' AND '9998' TO '99996' AND '99998', RESPECTIVELY.

Record how much was paid in local currency for the ORS packet. If it was free, circle '9996'. Circle '9998' if the respondent does not know how much was paid for the ORS packet.

## SOURCE AND COST OF SUPPLIES FOR ANTIBIOTICS FOR SUSPECTED PNEUMONIA

**SURVEY COORDINATORS:** THE QUESTIONS ON THE SOURCE AND COST OF ANTIBIOTICS SHOULD BE ADDED TO THE CARE OF ILLNESS MODULE, FOLLOWING QUESTION CA11. COPY THESE INSTRUCTIONS TO THOSE FOR THE CARE OF ILLNESS MODULE.

### CA11A. *Check CA11: Antibiotic given?*

Check CA11. If an antibiotic was given (code 'A' circled) to treat this illness, check the box marked 'Yes', and continue to CA11B. If 'No', skip to CA12.

### CA11B. WHERE DID YOU GET THE ANTIBIOTIC?

**SURVEY COORDINATORS:** CODING CATEGORIES SHOULD BE DEVELOPED LOCALLY AND REVISED BASED ON THE PRE-TEST. HOWEVER, THE BROAD CATEGORIES MUST BE MAINTAINED.

The intent of this question is to identify where the antibiotic was obtained. Circle the code corresponding to the answer given. If the respondent obtained the antibiotic from a medical sector source, ask whether the place is in the public (run by the government) or private sector. If the place is in the public sector, but is not one of the pre-coded choices, write the description in the space provided for 'Other public' and circle '16'. Similarly, if the place is in the private medical sector, but is not one of the pre-coded categories, write the description in the space provided for 'Other private medical' and circle '26'.

If the respondent answers that the antibiotic was obtained from another place not listed, write the description of the place in the space provided for 'Other' and circle '96'. Then notify your supervisor. Your supervisor will learn from other people in the community whether the place is public or private and then circle the code corresponding to the response. Circle '98' if the respondent does not know where the antibiotic was obtained.

### CA11C. HOW MUCH DID YOU PAY FOR THE ANTIBIOTIC?

**SURVEY COORDINATORS:** CUSTOMIZE THIS QUESTION IN ACCORDANCE WITH THE CURRENCY USED IN THE COUNTRY. IF FOUR DIGITS WILL BE SUFFICIENT TO CAPTURE THE PRICE OF ANTIBIOTICS, DO NOT CHANGE THE RESPONSE CODES. IF FIVE DIGITS WILL BE NECESSARY, FOR INSTANCE, MAKE SURE TO INCREASE THE NUMBER OF LINES PROVIDED IN THE RESPONSES TO FIVE, AND CHANGE '9996' AND '9998' TO '99996' AND '99998', RESPECTIVELY.

Record how much was paid in local currency for the antibiotic. If it was free, circle '9996'. Circle '9998' if the respondent does not know how much was paid for the antibiotic.

**SOURCE AND COST OF SUPPLIES FOR ANTIMALARIAL MEDICINES**

**SURVEY COORDINATORS:** THE OPTIONAL QUESTIONS IN THE MODULE ON SOURCE AND COST OF SUPPLIES FOR ANTIMALARIAL MEDICINES SHOULD BE INSERTED INTO THE ADDITIONAL MALARIA MODULE FOR UNDER-FIVES, FOLLOWING QUESTION ML9, IF THE ADDITIONAL MODULE IS USED. COPY THESE INSTRUCTIONS TO THOSE FOR THE MALARIA MODULE FOR UNDER-FIVES.

**ML9A. WHERE DID YOU GET THE (*name of antimalarial from ML4 or ML7*)?**

**SURVEY COORDINATORS:** CODING CATEGORIES SHOULD BE DEVELOPED LOCALLY AND REVISED BASED ON THE PRE-TEST. HOWEVER, THE BROAD CATEGORIES MUST BE MAINTAINED.

The intent of this question is to identify where the antimalarial first given for fever was obtained. If more than one antimalarial is mentioned in ML4 or ML7, refer to the first antimalarial given – that is, the antimalarial given on the day recorded in ML9.

Circle the code corresponding to the answer given. If the respondent obtained the antimalarial from a medical sector source, ask whether the place is in the public (run by the government) or private sector. If the place is in the public sector, but is not one of the pre-coded choices, write the description in the space provided for ‘Other public’ and circle ‘16’. Similarly, if the place is in the private medical sector, but is not one of the pre-coded categories, write the description in the space provided for ‘Other private medical’ and circle ‘26’.

If the respondent answers that the antimalarial was obtained from another place not listed, write the description of the place in the space provided for ‘Other’ and circle ‘96’. Then notify your supervisor. Your supervisor will learn from other people in the community whether the place is public or private and then circle the code corresponding to the response. Circle ‘98’ if the respondent does not know where the antimalarial was obtained.

**ML9B. HOW MUCH DID YOU PAY FOR THE (*name of antimalarial from ML4 or ML7*)?**

**SURVEY COORDINATORS:** CUSTOMIZE THIS QUESTION IN ACCORDANCE WITH THE CURRENCY USED IN THE COUNTRY. IF FOUR DIGITS WILL BE SUFFICIENT TO CAPTURE THE PRICE OF ANTIMALARIALS, DO NOT CHANGE THE RESPONSE CODES. IF FIVE DIGITS WILL BE NECESSARY, FOR INSTANCE, MAKE SURE TO INCREASE THE NUMBER OF LINES PROVIDED IN THE RESPONSES TO FIVE, AND CHANGE ‘9996’ AND ‘9998’ TO ‘99996’ AND ‘99998’, RESPECTIVELY.

Record how much was paid in local currency for the antimalarial identified above. If it was free, circle ‘9996’. Circle ‘9998’ if the respondent does not know how much was paid for the antimalarial medicine.

# **APPENDIX FOUR**

## **INSTRUCTIONS FOR SUPERVISORS AND EDITORS\***

### **SURVEY COORDINATORS:**

GIVE A COPY OF THIS APPENDIX TO EVERY SUPERVISOR AND EDITOR. TRANSLATE THIS APPENDIX INTO THE LOCAL LANGUAGE, IF NECESSARY. ENSURE THAT THE INFORMATION IN THIS APPENDIX IS APPROPRIATE TO YOUR SURVEY. SOME COUNTRIES MAY NEED TO GIVE SLIGHTLY DIFFERENT INSTRUCTIONS, DEPENDING ON THEIR CUSTOMIZED QUESTIONNAIRES. DELETE INSTRUCTIONS ON MODULES NOT USED IN YOUR COUNTRY.

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\* Adapted from the Supervisor's Manual developed for the Demographic and Health Surveys.

## INTRODUCTION TO THE MICS APPROACH

Field supervisors and editors for the Multiple Indicators Cluster Survey have an important position. They are the primary links between the director of field operations and the interviewers. As such, they are responsible for ensuring both the progress and quality of fieldwork.

These instructions provide the information needed by field supervisors and editors to carry out their duties. Candidates for the positions of field supervisor and editor for the MICS should study these instructions carefully during their training. They should also study the Instructions for Interviewers, since it is necessary to thoroughly understand the questionnaire and the procedures for completing it. Individuals selected to serve as field supervisors and editors should continue to refer to these instructions throughout the fieldwork period.

## RESPONSIBILITIES OF THE FIELD SUPERVISOR

The field supervisor is the senior member of the field team. He/she is responsible for the well-being and safety of team members, as well as the completion of the assigned workload and the maintenance of data quality. The field supervisor receives his/her assignments from and reports to the fieldwork director.<sup>1</sup> The specific responsibilities of the field supervisor are to make the necessary preparations for the fieldwork, to organize and direct the fieldwork, and to spot check the data collected in the Household Questionnaire.

Preparing for fieldwork requires that the field supervisor:

- (1) Obtains sample household lists and/or maps for each area in which his/her team will be working and discuss any special problems.
- (2) Becomes familiar with the area where the team will be working and determine the best arrangements for travel and accommodations.
- (3) Contacts local authorities to inform them about the survey and to gain their support and cooperation.
- (4) Obtains all monetary advances, supplies and equipment necessary for the team to complete its assigned interviews. Careful preparation by the supervisor is important for facilitating the work of the team in the field, for maintaining interviewer morale and for ensuring contact with the central office throughout the fieldwork.

Organizing fieldwork requires that the field supervisor:

- (1) Assigns work to interviewers, taking into account the linguistic competence of individual interviewers, and assures that there is an equitable distribution of the workload
- (2) Maintains fieldwork control sheets, and makes sure that assignments are carried out
- (3) Makes spot checks of the Household Questionnaire by conducting household interviews according to the procedure described below
- (4) Regularly sends completed questionnaires and progress reports to the fieldwork director and keeps headquarters informed of the team's location

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<sup>1</sup> Countries may have different ways of organizing and managing fieldwork. In many countries, a fieldwork director will be responsible for coordinating field activities, reporting to the survey coordinator. In others, one field coordinator will be identified for each region, each of them reporting to the survey coordinator, or a fieldwork director at headquarters. Yet in others, the survey coordinator will also assume the responsibility of coordinating fieldwork activities, in which case the field supervisors will be reporting directly to the survey coordinator. This appendix assumes that field supervisors are reporting to a fieldwork director.

- (5) Communicates any problems to the fieldwork director
- (6) Takes charge of the team vehicle, ensuring that it is kept in good repair and that it is used only for project work
- (7) Makes an effort to develop a positive team spirit. A congenial work atmosphere, along with careful planning of field activities, contributes to the overall quality of a survey.

### **RESPONSIBILITIES OF THE EDITOR**

The specific duties of the editor are to monitor interviewer performance and to make anthropometric measurements of children under 5 years of age. Close supervision of interviewers and editing of completed interviews is essential to assure that accurate and complete data are collected. Since the collection of high-quality data is crucial to the success of the survey, it is important that mature, responsible women be recruited as editors and that they execute their duties with care and precision. This is especially important during the initial phases of fieldwork, when it is possible to eliminate interviewer error patterns before they become habit.

Monitoring interviewer performance requires that the editor:

- (1) Observes several interviews every day
- (2) Edits all completed questionnaires in the field. Editing must be completed prior to leaving the sample area. To the extent possible, the field supervisor should assist the editor in performing this task so that all interviews are field edited while still in the sample area
- (3) Conducts regular review sessions with interviewers and advises them of any problems found in their questionnaires
- (4) Puts completed questionnaires from a sample area in order and packs them up to be sent to the central office.

Making anthropometric measurements of children is the responsibility of the editor and requires that he/she follows the procedures for weighing and measuring specified in Appendix Five of this manual. Anthropometric measurements must be carried out by two persons who are trained to perform these tasks, a measurer and an assistant

The two individuals assigned the responsibility of making anthropometric measurements can vary in different surveys. The exact procedure in a given survey will depend on the field conditions. The point is that specific team members should be assigned the role of measurer and the measurer must have completed the anthropometric training sessions. In MICS3 surveys it is suggested that (1) the editor assumes the role of measurer, (2) interviewers identify children to be measured and arrange for the editor/measurer to come to the household with the equipment, and (3) the editor carries out the anthropometric measurements with the assistance of the interviewer.

## PREPARING FOR FIELDWORK

### COLLECTING MATERIALS FOR FIELDWORK

Before leaving for the field, the supervisor is responsible for collecting adequate supplies of the materials the team will need in the field. These items are listed below:

*Fieldwork documents:*

- Instruction for Supervisors and Editors
- Instructions for Interviewers
- Maps and Household Listing Forms for all clusters in the assigned area
- Letters of introduction
- Questionnaires
- Supervisor's Control Sheets
- Interviewer's Control Sheets.

*Supplies:*

- Blue pens for interviewers
- Red pens for the editor and supervisor
- Clipboards, briefcases
- Paper clips, scissors, string, staplers and staples, cello tape, etc.
- Envelopes to store completed questionnaires
- First aid kit.

### *Monetary Advances for Field Expenses*

The supervisor should have sufficient funds to cover expenses for the team. Funds should be distributed according to the procedures established by the survey director, if these have not been included in the per diem that is given directly to the interviewers.

**SURVEY COORDINATORS:** AT THE END OF THE PARAGRAPH ABOVE, INCLUDE A BRIEF DESCRIPTION OF PROCEDURES IN THE PARTICULAR COUNTRY, SOMETHING LIKE: "Include funds for fuel and minor vehicle repairs, for guides and for communication with the central office. Advances for per diem allowances will be given directly to individual interviewers, editors and supervisors. Salary payments will be made to all field staff at the end of each month at which time per diem allowances will be paid to cover the upcoming month. Payments will be made either by wiring funds to local banks in the areas in which the team will be working, or by sending out an accountant from the central office."

The supervisor should arrange for a system to maintain regular contact with the central office staff before leaving for the field. Regular contact is needed for supervision of the team by central office staff, payment of team members and the return of completed questionnaires for timely data processing.

### ARRANGING TRANSPORTATION AND ACCOMMODATIONS

It is the supervisor's responsibility to make all necessary travel arrangements for his/her team, whenever possible, in consultation with the central office. The supervisor is responsible for the maintenance and



security of the team vehicle. The vehicle should be used exclusively for survey-related travel, and when not in use, should be kept in a safe place. The driver of the vehicle takes instructions from the supervisor.

**SURVEY COORDINATORS:** VEHICLES ARE GENERALLY PROVIDED TO TRANSPORT THE TEAM TO ASSIGNED WORK AREAS. HOWEVER, IN SOME CASES, IT MAY BE NECESSARY TO ARRANGE FOR OTHER MEANS OF TRANSPORTATION, SUCH AS BOATS, HORSES, MULES, ETC. CUSTOMIZE THE PARAGRAPH ABOVE ACCORDINGLY.

In addition to arranging transportation, the supervisor is in charge of arranging for food and lodging for the team. If they wish, interviewers may make their own arrangements, as long as these do not interfere with fieldwork activities. The lodging should be reasonably comfortable, located as close as possible to the interview area, and should provide a secure space to store survey materials. Since travel to rural clusters is often long and difficult, the supervisor may have to arrange for the team to stay in a central location.

### CONTACTING LOCAL AUTHORITIES

It is the supervisor's responsibility to contact the regional, district, local, and village officials before starting work in an area. Letters of introduction will be provided, but tact and sensitivity in explaining the purpose of the survey will help win the cooperation needed to carry out the interviews.

### USING MAPS TO LOCATE CLUSTERS

**SURVEY COORDINATORS:** ADAPT THIS SECTION ACCORDING TO WHETHER HOUSEHOLD LISTINGS, MAPS, OR BOTH ARE USED FOR THE IDENTIFICATION OF SELECTED HOUSEHOLDS OR DWELLINGS.

A major responsibility of the field supervisor and the editor is to assist interviewers in locating households in the sample. The fieldwork director will provide the supervisor with a copy of the Household Listing for the sample and/or maps of the clusters in which his/her team will be working. These documents will enable the team to identify the cluster boundaries and to locate the households selected for the sample. The representatives of the sample depend on finding and visiting every sampled household.

Maps are generally needed during all stages of a survey, since they provide a picture of the areas in which interviews are to be carried out and help to eliminate errors, such as duplication or omission of areas. Moreover, maps help the supervisor, editor and interviewers determine the location of sample areas, the distance to them, and how to reach selected households or dwellings.

Each team will be given general cluster maps, Household Listing Forms and, for urban areas, sketch maps and written descriptions of the boundaries of selected areas. A cluster is the smallest working unit in any census or survey operation that can easily be covered by one enumerator. It has identifiable boundaries and lies wholly within an administrative or statistical area. The general cluster maps may show more than one cluster. Each cluster is identified by a number (for example, EA-05). Symbols are used to indicate certain features on the map such as roads, footpaths, rivers, localities, boundaries, etc. If symbols are shown on the map, the supervisor and editor should know how to interpret them by using the legend.

In most clusters, the boundaries follow easily recognizable land features such as rivers, roads, railroads, swamps, etc. However, at times, boundaries are invisible lines. The location and determination of invisible boundaries calls for some ingenuity, particularly in rural areas. The following procedure is suggested:

*In rural areas:*

- (1) Identify on the map the road used to reach the cluster. When you reach what appears to be the cluster boundary, verify this by checking the location of actual terrain features and landmarks against their location on the map. Do not depend on one single feature; rather, use as many as possible.
- (2) It is usually possible to locate unnamed roads or imaginary lines by asking people living in the vicinity. In most cases, these people will know where the villages are and, by locating the villages, you can usually determine where the boundaries run. Local authorities may be helpful, as well as residents.
- (3) While there are cases in which boundaries shown on the map no longer exist (for example, they have been demolished), or have changed location (for example, a road has been relocated or a river has changed course), do not be hasty in jumping to conclusions. If you cannot locate a cluster, go on to the next one and discuss the matter later with the fieldwork director.

*In urban areas:*

- (1) As mentioned above, all urban clusters will have sketch maps and written descriptions to help you locate the boundaries. There should be no problem with invisible lines.
- (2) Street names in urban areas will often help you to locate the general area of clusters. Boundaries can be streets, alleys, streams, city limits, power cables, walls, rows of trees, etc.
- (3) Check the general shape of the cluster. This will help you find out if you are in the right place.
- (4) Read the written description.
- (5) You should locate all the cluster boundaries before you begin interviewing. For example, if the cluster is a rectangular block, the names of three boundary streets is not enough to unequivocally identify the cluster; check all four boundary streets. **[SURVEY COORDINATORS: DESCRIBE ANY NUMBERING SYSTEM THAT MAY HAVE BEEN ADOPTED DURING THE SAMPLE LISTING AND HOW INTERVIEWERS CAN USE THIS TO LOCATE SELECTED HOUSEHOLDS OR DWELLINGS.]**

## **FINDING SELECTED HOUSEHOLDS**

**SURVEY COORDINATORS:** ADAPT THIS SECTION IF DWELLINGS INSTEAD OF HOUSEHOLDS HAVE BEEN SELECTED.

In most cases, the selected households can be located by referring to the Household Listing Form or to the detailed maps of the selected clusters. Because people move around, and sometimes the listing teams may have made errors, you may have difficulty locating the residents of dwellings that were selected. Here are examples of some problems you may encounter and how to deal with them:

- (1) The household in the selected dwelling has moved away and the structure is vacant. If a household has moved out of the structure where it was listed and no one is living in the structure, you should consider the structure vacant and enter code '4' ('Household not found') on your Supervisor's Control Sheet.
- (2) The household in the selected dwelling has moved away and a new one is now living in the same structure. In this case, the new household should be interviewed.
- (3) The dwelling number and name of household head do not match what is found in the field. Say, for example, that Albert Jennies is listed as the household head for dwelling 003, but when the interviewer goes to 003 she finds that the household living there is headed by Mary Olson. Consider whichever household is living in 003 as the selected household (that is, the household headed by Mary Olson should be interviewed). Check carefully, however, that you are indeed in the right cluster and have identified the selected dwelling.
- (4) The household listed in a selected dwelling is actually living in a dwelling that was not selected. If, for example, Albert Jennies is listed as the household head for dwelling 003, but Albert Jennies actually lives in 028, the household living in MICS-003 should be interviewed. In other words, if there is a discrepancy between the dwelling number and the name of the household head, interview whoever is living in the selected dwelling. Again, make absolutely sure that you are in the right cluster and have identified the selected dwelling.
- (5) The listing shows only one household in the dwelling but two households are living there now. In this case, both households should be interviewed. Make a note on your Supervisor's Control Sheet next to the household that was not on the listing. Assign the new household a household number, enter the number on your Supervisor's Control Sheet, and instruct the interviewer to enter the new household number on the Interviewer's Control Sheet and on the questionnaire. However, if the listing already shows two households, only one of which was selected, and you find two or more households there now, only interview the one that had been selected and ignore the rest. **[SURVEY COORDINATORS: NOTE THAT THIS RULE DEPENDS ON WHETHER HOUSEHOLDS OR DWELLINGS ARE SELECTED; IF DWELLINGS WERE SELECTED, ALL HOUSEHOLDS SHOULD BE INTERVIEWED.]**
- (6) The head of the household has changed. In some cases, the person who is listed as the household head may have moved away or died since the listing. Interview the household head that is living there now.
- (7) The house is all closed up and the neighbours say the people are away and will be back in several days or weeks. Enter code '2' ('Not at home') on the Supervisor's Control Sheet.
- (8) The house is all closed up and the neighbours say that no one lives there; the household has moved away permanently. Enter code '6' ('Other') on the Supervisor's Control Sheet and specify the answer in the space provided.
- (9) A selected dwelling is actually a shop and no one lives there. Check very carefully to see if anyone is living there. If not, enter code '6' ('Other') on the Supervisor's Control Sheet and specify the answer in the space provided.
- (10) A selected structure is not found in the cluster, and residents say that the dwelling was destroyed in a recent fire. Enter code '4' ('Dwelling destroyed') on the Supervisor's Control Sheet.

## **ORGANIZING AND SUPERVISING FIELDWORK**

### **ASSIGNING WORK TO INTERVIEWERS**

The following tips may be helpful to the supervisor in assigning work:

- (1) Make daily work assignments. Be sure each interviewer has enough work to do for the day, taking into account the duration of an interview and the working conditions in the area. The fieldwork director will advise you about how many interviews to assign per day.
- (2) It will be necessary to assign more interviews than an interviewer can actually do in one day because some households and/or women may not be available to interview at the time of the interviewer's visit. Sometimes there may be as many as three or four of these cases a day for a particular interviewer. In general, assign fewer households at the beginning of fieldwork to allow time for discussion of problems and for close supervision.
- (3) Distribute work fairly among the interviewers. Work should be assigned taking into account the capabilities and strengths of each interviewer, but never consistently assigning more difficult workloads to certain interviewers. If an interviewer is unlucky and consistently draws difficult assignments, the supervisor can purposely provide her some easier assignments.
- (4) Ensure that each interviewer has all the required information and materials for completing the work assignment.
- (5) Maintain complete records each day using the control sheets. All assignments and work completed by each interviewer and for each work area should be carefully monitored for completeness and accuracy.
- (6) Make sure that all selected households and eligible women and children for that cluster have been interviewed before leaving an area. See below for details on how to handle pending interviews.
- (7) Finally, it is the responsibility of the supervisor to make sure that the interviewers fully understand the instructions given to them and that they adhere to the work schedule. The work schedule is prepared in advance by the central office and adherence to it is crucial to avoid overruns in the total amount of time and money allocated for the fieldwork. Supervisors should also monitor the work of each interviewer to assess whether she is performing according to the standards set by the central office.

### **REDUCING NON-RESPONSE**

One of the most serious problems in a sample survey of this type is non-response, that is, failure to obtain information for selected households or failure to interview eligible individuals (women or mothers/caretakers of children under five). A serious bias could result if the level of non-response is high. One of the most important duties of the supervisor and editor is to try to minimize this problem and to obtain the most complete information possible. In many cases, interviewers will make return visits to households in the evening or on the weekends to reduce non-response. It is a time-consuming task and requires strict monitoring by means of the control sheets.

Non-response may be classified into three basic types:

- Type 1:** The interviewer is unable to locate the selected household.
- Type 2:** The interviewer is unable to locate the eligible woman or the mother/caretaker of children under five for whom information will be collected in the Household Questionnaire or individual interview.
- Type 3:** The respondent refuses to be interviewed.

Various ways of dealing with these types of non-response are discussed below.

**Type 1: The interviewer is unable to locate the selected household.**

- (a) *Occupied structure inaccessible.* There may be some occupied structures for which no interviews can be made because of impassable roads, etc. The interviewer should be instructed to hold the questionnaire until later. Another attempt should be made to reach the dwelling at a later date when the situation may have changed. The fieldwork director should be informed immediately of any difficulty in gaining access to a whole cluster or a sizeable number of structures within the same cluster.
- (b) *Structure not found.* The supervisor should make sure the interviewer has tried several times to locate the structure using the Household Listing Form, maps, etc. If the interviewer is still unsuccessful, the supervisor or editor should attempt to locate the structure and ask neighbours if they know anything about the structure or the household members. Again, if this problem occurs frequently, it should be reported to the fieldwork director. Although no interview has taken place, a Household Information Panel should be filled out in the Household Questionnaire.
- (c) *Structure nonresidential, vacant or demolished.* If the interviewer indicates that a structure is not a dwelling unit or that it is vacant or demolished, the supervisor or editor should verify that this is the case. If the interviewer is correct, there is no need for further call-backs (return visits). Although no interview has taken place, a Household Information Panel should be filled out in the Household Questionnaire.

**Type 2: The interviewer is unable to locate the eligible woman or the mother/caretaker of children under five for whom information will be collected in the Household Questionnaire or individual interview.**

- (a) *No one home at time of call.* The interviewer should make every effort to contact neighbours to find out when the members of the household will be at home or where they might be contacted. At least three visits should be made to locate the household members. Sometimes it may be necessary to call at mealtimes, in the early morning, in the evening or on the weekend. However, the interviewer should not make 'hit or miss' calls just to fill the quota of three visits. It is not advisable to make all three visits on the same day, except in cases where it is known that the household will return during the same day.
- (b) *Respondent temporarily absent.* The respondent may not be at home or may be unable to complete the interview at the time of the first call. The interviewer should find out from other household members or neighbours when the respondent can best be contacted, and a return visit should be made then. If the respondent is still not at home at the time of the second visit, another time should be set for a return visit. At least three attempts should be made to locate the

respondent. If the interviewer is not able to complete the entire interview during the initial visit, the procedure for call-backs should be followed.

### **Type 3: The respondent refuses to be interviewed.**

The number of refusals reported by each interviewer should be closely monitored. If an interviewer reports an unusually high number of refusals, it may indicate that she gives up too easily or explains the survey inadequately. If this appears to be the case, the supervisor or editor should observe the interviewer promptly. Suggestions for handling potential refusals:

- (a) *Approach respondent from her point of view.* Refusals may stem from misconceptions about the survey or other prejudices. The interviewer must consider the respondent's point of view, adapt to it and reassure her. If there is a linguistic or ethnic barrier between the respondent and the interviewer, the supervisor should, if possible, send a different interviewer to complete the questionnaire.
- (b) *Postpone interview to another day.* If the interviewer senses that she has arrived at an inconvenient or awkward time, she should try to leave before the respondent gives a final 'no'; she can then return another day when circumstances are more likely to result in a successful interview.
- (c) *Have the editor carry out the interview.* The editor's knowledge, skill and maturity may enable her/him to complete a difficult interview when the assigned interviewer has been unable to do so.

### **HANDLING PENDING INTERVIEWS**

When information has not been collected from a selected household or from an eligible respondent and the return visits have not been completed, the interview is considered 'pending'. All materials pertaining to this interview should remain with the interviewer until she has completed the pending interview. Supervisors and editors should keep track of all assignments on the Supervisor's Control Sheet.

Completing call-backs for pending interviews is time-consuming and should be carefully planned. If a few interviews remain pending as interviewing in a cluster nears completion, one or two interviewers should be assigned to remain in the area and complete the interviews, while the rest of the team proceeds to the next assignment area. In this way, the whole team is not kept waiting for one or two interviewers to finish. Clear instructions should be left with the interviewers as to where and when to rejoin the team and what method of transportation should be used.

### **MAINTAINING MOTIVATION AND MORALE**

The supervisor and editor play a vital role in creating and maintaining motivation and morale among the interviewers, two elements that are essential to good-quality work. In order to achieve this, it is necessary to make sure that interviewers:

- Understand clearly what is expected of them
- Are properly guided and supervised in their work
- Receive recognition for good work
- Are stimulated to improve their work
- Work in tranquil and secure conditions.

In working with the interviewers, it may be useful to adhere to the following principles:

- (1) Rather than giving direct orders, try to gain voluntary compliance before demanding it.
- (2) Without losing a sense of authority, try to involve the interviewers in decision-making and, at the same time, see to it that the decision remains firm.
- (3) When pointing out an error, do it with tact, in a friendly manner and in private. Listen to the interviewer's explanation, show her that you are trying to help, and examine the causes of the problem together.
- (4) When interviewers voice complaints, listen with patience and try to resolve them.
- (5) Try to foster team spirit and group work.
- (6) Under no circumstances show preference for one or another of the interviewers.
- (7) Try to develop a friendly and informal atmosphere.

Finally, remember that encouraging words, instructions and constructive criticism are not worth anything unless the supervisor and editor set good examples. It is important to demonstrate punctuality, enthusiasm and dedication in order to demand the same of other team members. Never give the impression that you are working less than other members of the team, or that you are enjoying special privileges; this may produce a lack of faith in the project and cause general discontent. An ill-prepared supervisor or editor will not be able to demand quality work from interviewers and will lose credibility and authority. Interviewer morale and motivation depend on your morale and motivation.

## MAINTAINING FIELDWORK CONTROL SHEETS

The work of interviewers is monitored and evaluated by keeping accurate record of assignments and the status of interviews. Both supervisors and interviewers have control forms to maintain. The Supervisor's Control Sheet contains information about the fieldwork in each cluster. These forms should be returned to the fieldwork director along with the completed questionnaires from that cluster. The interviewer will complete and return the Interviewer's Control Sheet to the supervisor at the end of work in each cluster.

### SUPERVISOR'S CONTROL SHEET

One Supervisor's Control Sheet should be completed for each cluster by the supervisor and **returned to the office with the questionnaires from that cluster**. An example of the Supervisor's Control Sheet is shown in Annex A4.2.

#### *Assignment of Interviews*

The first step in completing the Supervisor's Control Sheet is to record the information for selected households or dwellings from the Household Listing Forms or the maps provided, preferably in the same order in which they are indicated on these forms.

Generally, the supervisor will need two to four Supervisor's Control Sheets to list all of the selected households in a cluster. The cluster identification information should be filled in on all of the sheets, and they should be numbered sequentially in the space provided at the top of the sheet (for example, 1 of 5, 2 of 5, etc.). If an additional sheet is needed during the recording of the outcomes of the household and/or individual interviews in a cluster, the supervisor should be sure to staple that sheet to the others for the cluster and correct the total number of sheets reported for the cluster.

The director of field operations will provide the supervisor with the appropriate forms or maps for each cluster assigned to that team. Using the guidelines presented before, the supervisor should assign each interviewer a certain group of households or dwellings to interview. The interviewer is then responsible for completing three tasks:

- (1) Interviewing all the households
- (2) Determining the number of eligible women and children under five in each of the households
- (3) Interviewing all eligible women and mothers/caretakers of children under five of the households or dwellings assigned to her.

As soon as the assignments have been made, the supervisor should complete columns 1 through 3 of the Supervisor's Control Sheet with the relevant information. The interviewer should complete columns 1 and 2 of the Interviewer's Cluster Control Sheet.

In filling out the top of the Supervisor's Control Sheet, copy the information such as cluster number, name of the locality, and province from the Household Listing Form or map. The cluster number will typically be a three-digit number and will be written on the top of each page of the Household Listing. Cluster numbers are unique: No two clusters should have the same number.



***Household Visits and Individual Interviews: Columns 4–8***

During the day, the interviewers will return the completed questionnaires to the editor or supervisor, who will check them. As the questionnaires are received, the information on the cover sheets can be used to complete columns 4 through 8 of the Supervisor's Control Sheet. The following procedure is suggested:

First, review the household and individual questionnaires, checking to see that:

- (1) Eligible women and children under five have been correctly identified on the Household Questionnaire
- (2) Individual questionnaires were assigned to each of the eligible women and children under five years of age, even if the actual interview was not completed
- (3) The identification information on the cover pages of all the household and individual questionnaires for women and children is correct.

Second, using the questionnaires, copy information about the results of the interview into columns 4 through 8 of the Supervisor's Control Sheet. In column 5, write the number of eligible women 15 to 49 years identified on the cover page of the Household Questionnaire (HH12), and in column 6 the number of eligible children under 5 years of age identified in HH14. The final result of the household interview should be written in column 4 and the number of eligible respondents (ER) with complete interviews in column 7 for women and in column 8 for children under five.

***Remarks: Column 9***

Remarks and comments regarding the interview assignment, results or interviews may be recorded here; for example, reassignment of a pending interview or a change in the name of a household head, etc. Also, note here any irregularities observed during spot checks or re-interviews.

Check to be sure that you have listed all the households or dwellings on the Supervisor's Control Sheet that were selected on the Household Listing Form or map for that cluster. **There can never be fewer Household Questionnaires than selected households or dwellings**, but there can be more.

Always start a new cluster on a separate Supervisor's Control Sheet. Be sure to write neatly, since these forms will be used to make response rate calculations later on in the central office.

**INTERVIEWER'S CLUSTER CONTROL SHEET**

The Interviewer's Cluster Control Sheet (see Annex A4.3) is similar to the Supervisor's Control Sheet, and helps each interviewer keep track of the households assigned to her. The supervisor and editor should review the Interviewer's Cluster Control Sheets each evening and discuss the results of the interviews.

**SYSTEMATIC SPOT CHECKING OF HOUSEHOLD COMPOSITION**

As noted earlier, the most important function of field supervisors is to control the quality of the data collection. A problem that arises frequently is that some interviewers may deliberately subtract years from the age of women who are 15 to 19, add years to women who are over 40, or add years to children under 5 in order to place them outside the age range of eligibility for the individual questionnaires. Sometimes

interviewers may simply omit eligible women or children from the listing. In these ways they reduce their workload. If such practices are widespread, they can have a substantial impact on the quality of the survey data.

A powerful tool for detecting and preventing this kind of interviewer error is to systematically spot check household composition. This will involve returning to certain households with a blank Household Questionnaire and filling in columns 2 to 8 for each person, that is, name, relationship to the head of the household, sex, age and eligibility. You should carefully probe the ages of girls declared to be 11 to 14 years of age, of women 50 to 55 years of age, and of children 5 to 9 years of age. The spot check should, if possible, be made the same day as the interviewer's visit so that the same respondent(s) can be found.

The field supervisor will be responsible for conducting two spot checks of household composition in each sample cluster. He/she may ask the editor to do spot checks, wherever appropriate and necessary. The selection of households to be checked should not be random. Rather, you should select households that contain women or children of borderline ages, that is, 11 to 14, 50 to 55 and 5 to 9. Furthermore, you should make sure that all of the team's interviewers are occasionally spot checked.

After you have selected the households for the spot check, you will fill out the identification information on the cover sheets of blank Household Questionnaires with a red pen. At the top of the cover page write clearly 'SPOT CHECK'. You will then visit the selected households with only the spot-check questionnaire. After completing columns 2 through 8 of the Household Listing for each household member and visitor, obtain the Household Questionnaire completed by the interviewer and compare your listing with that of the interviewer. Write the results of this comparison with a red pen in any available space on the spot-check questionnaire (for example, in the unfilled space in columns 9 through 12 of the Household Listing or at the bottom of the page). There are a variety of possible results: identical listings; additional persons; fewer persons; a child under 5 years of age who, in the original interview, was listed as older; and most important, detection of an (additional) eligible respondent not identified in the original interview.

If you discover a woman eligible for the individual interview who was not identified in the original interview, you must call the error to the interviewer's attention and send her back to interview the woman. If you discover a child for which a questionnaire should have been completed but was not, send the interviewer back to gather the missing information.

The questionnaires resulting from the spot check should be included with the other materials sent back to the central office when fieldwork in the cluster is completed.

## **MONITORING INTERVIEWER PERFORMANCE**

Controlling the quality of the data collection is the most important function of the editor. Throughout the fieldwork, he/she will be responsible for observing interviews and carrying out field editing. By checking the interviewers' work regularly, the editor can ensure that the quality of the data collection remains high throughout the survey. It may be necessary to observe the interviewers more frequently at the beginning of the survey and again toward the end. In the beginning, the interviewers may make errors due to lack of experience or lack of familiarity with the questionnaire; these can be corrected with additional training as the survey progresses. Toward the end of the survey, interviewers may become bored or lazy in anticipation of the end of the fieldwork; lack of attention to detail may result in carelessness with the data. To maintain the quality of data, the editor should check the performance of interviewers thoroughly at these times.

### **OBSERVING INTERVIEWS**

The purpose of the observation is to evaluate and improve interviewer performance and to look for errors and misconceptions that cannot be detected through editing. It is common for a completed questionnaire to be technically free of errors, but for the interviewer to have asked a number of questions inaccurately. Even if the editor does not know the language in which the interview is being conducted, he/she can detect a great deal from watching how the interviewer conducts herself, how she treats the respondent and how she fills out the questionnaire. The editor should observe each interviewer many times throughout the course of the fieldwork. The first observation should take place during interviewer training and may also be used as a screening device in the selection of interviewer candidates. Each interviewer should also be observed during the first two days of the fieldwork so that any errors made consistently are caught immediately. Additional observations of each interviewer's performance should be made during the rest of the fieldwork. The editor should observe at least one interview per day during the course of the fieldwork, with the heaviest observation at the beginning and end.

During the interview, the editor should sit close enough to see what the interviewer is writing. This way, she can see if the interviewer interprets the respondent correctly and follows the proper skip patterns. It is important to make notes of problem areas and points to be discussed later with the interviewer. The editor should not intervene during the course of the interview and should try to conduct herself in a manner that does not make the interviewer or respondent nervous or uneasy. Only in cases where serious mistakes are being committed by the interviewer should the editor intervene.

After each observation, the editor and interviewer should discuss the interviewer's performance. The questionnaire should be reviewed, and the editor should mention the interviewer's strong points as well as problems and mistakes.

### **EVALUATING INTERVIEWER PERFORMANCE**

The editor should meet daily with the interviewers to discuss the quality of their work. In most cases, mistakes can be corrected and interviewing style improved by pointing out and discussing errors at regular meetings. At team meetings, the editor should point out mistakes discovered during observation of interviews or noticed during questionnaire editing. Discuss examples of actual mistakes, but be careful not to embarrass individual interviewers. Reread relevant sections from the Instructions for Interviewers with the team to resolve problems. Also, encourage the interviewers to talk about any situations they

encountered in the field that were not covered in training. The group should discuss whether or not the situation was handled properly and how similar situations should be handled in the future. Team members can learn a lot from one another in these meetings and should feel free to discuss their own mistakes without fear of embarrassment.

The editor and supervisor should expect to spend considerable time evaluating and instructing interviewers at the start of the fieldwork. If they feel that the quality of work is not adequate, the interviewing should stop until errors and problems have been fully resolved. In some cases, an interviewer may fail to improve and will have to be replaced. This applies particularly in the case of interviewers who have been dishonest in the recording of ages of women and/or children.

## EDITING QUESTIONNAIRES

Ensuring that questionnaires are edited for completeness, legibility and consistency is one of the most important tasks of the editor. **The survey requires that every questionnaire be thoroughly checked in the field.** This is necessary because even a small error can create much bigger problems after the information has been entered into the computer and tabulations have been run. Timely editing permits correction of questionnaires in the field.

### GENERAL INSTRUCTIONS

- (1) As you go through the questionnaires, mark any problem areas with a red pen and note the page number or the question number on the back page; then, the interviewer can quickly see whether there are any observations. Upon completion of editing, discuss with each interviewer, individually, the problems encountered and review errors that occur frequently with the whole team.
- (2) If the problems are major, it will be necessary to go back to interview the respondent again. If a return visit is not possible, try to establish with the interviewer's assistance the correct response from other information in the questionnaire. If, and only if, this is not possible, take the following action:
  - (a) If the response is missing (that is, there is no answer recorded because the question was not asked), enter a code of '9' ('99', '999') and circle that code with a red pen.
  - (b) If the response is inconsistent with other information in the questionnaire and you cannot determine the correct response, enter a code '7' ('97', '997') and circle that code with a red pen.

NOTE: UNDER NO CIRCUMSTANCES SHOULD YOU MAKE UP AN ANSWER.
- (3) In checking through each questionnaire, be sure that the numbers entered in boxes are legible and that the circles used by the interviewer to select the pre-coded numbers clearly mark only one of the choices (except in cases where more than one code is allowed). Also make sure that when the 'Other' category is selected, the answer is clearly specified in the area provided.
- (4) In checking each questionnaire, make certain that the respondent was asked all questions appropriate for her (for example, that the interviewer followed the skip instructions). You will need to look for:
  - (a) Questions for which there is a response when it appears there should be no response
  - (b) Questions for which there is no response when it appears there should be a response.

Mark these skip errors with a red pen and try to determine the correct response as described in paragraph (2) above. Correct errors following the system described in the Instructions for Interviewers, for example, drawing two lines through the existing code and circling or writing the new code. **ALWAYS USE A RED PEN IN MAKING CORRECTIONS.**

- (5) Check the ranges for all variables that are not pre-coded (for example, a 34-year-old woman cannot have 24 sons living with her) and carry out the other consistency checks that are listed. Mark any inconsistencies with a red pen and try to determine the correct responses as described in paragraph (2) above.
- (6) The editor should advise the team supervisor about questionnaires that have been returned to interviewers for further work.

### **EDITING THE HOUSEHOLD QUESTIONNAIRE**

In editing the Household Questionnaire, be sure to:

- (1) Check, in the Household Information Panel, that the household identification information has been completed correctly.
- (2) Code the information on the Information Panel if the interviewer has not done so. If the final result code is not '1', check to see that the remaining pages are blank. If the final result code is '1', continue to check the following pages of the Household Questionnaire.
- (3) Check for complete information for each line number in columns HL3, HL4 and HL5 of the Household Listing Form. There should be no blanks in these columns.
- (4) Also in the Household Listing Form, check that the line numbers of all women ages 15 to 49 have been circled in column HL6, and that in columns HL7 and HL8 the line number of the mother/caretaker of children five to 14 and children under 5 years of age, respectively, were inserted. If you find errors regarding eligible women or children in the household, check with the interviewer to make certain the correct number of interviews have been conducted in the household.
- (5) Check that there is information in columns HL9 through HL12 for each person under 18 years of age included in the Household Listing Form.
- (6) If the response in column HL9 of the Household Listing Form is 'No' or 'DK', then column HL10 should be blank. If the response in column HL9 is 'Yes', then there must be information in column HL10. Likewise, if the response in column HL11 is 'No' or 'DK', then column HL12 should be blank. If the response in column HL11 is 'Yes', then there must be information in column HL12.
- (7) In the Education module, check that the questions of columns ED2 and ED3 have been filled for each person aged five and older. Column ED3 must be blank if the household member is less than 5 years of age or if the answer in column ED2 is 'No'.
- (8) Also in the Education module and for persons 5 to 24 years of age, check that questions ED4 to ED8 are completed following the appropriate skips. For example, if ED4 = 2, then ED5 AND ED6 must be blank. Similarly, if ED7 = 2 or 8, then ED8 must be blank.
- (9) In the Water and Sanitation module, check that there are answers for questions WS1 through WS9 when appropriate for each household in the sample. Notice that depending on the skip patterns for each question, some questions should be blank (for example, if WS1 = 11 or 12, then WS2, WS3 and WS4 must be blank). Also make sure that when the 'Other' category is selected, the answer is clearly specified in the area provided.

- (10) In the Child Labour module, check that answers to questions CL2 through CL9 are asked for all household members aged 5 to 14 years. Check that the appropriate skips were followed and that an answer exists when applicable. For example, column CL9 must indicate a number of hours only if the answer in column CL8 is 'Yes'.
- (11) In the Salt Iodization module, verify that the salt test was implemented in each household and that the result is recorded in the questionnaire.
- (12) Check that the number of Questionnaires for Individual Women and for Children Under Five returned with each Household Questionnaire is the same as the number of eligible women and children under five reported on the cover page. Speak with the interviewer when there is any inconsistency.

### EDITING THE QUESTIONNAIRE FOR INDIVIDUAL WOMEN

- (1) Check that the identification information for the Questionnaire for Individual Women has been completed correctly. Information for cluster and household number must be the same as that on the Household Information Panel of the Household Questionnaire. The line number of the woman should be consistent with her line number in the Household Listing in the Household Questionnaire.
- (2) Code the information on the Questionnaire for Individual Women if the interviewer has not done so. If the questionnaire is incomplete, verify the reason for the result. If the interview is completed, continue to check the remaining pages of the questionnaire.
- (3) In the Women's Information Panel, check the answer to WM8 (Date of birth). The month of birth should be between '01' and '12', or '98'; the year of birth should be not less than '1955' and not greater than '1991', or '9998'; and WM9 (Age) should be between '15' and '49'. Question WM9 must have an answer, even if it is the interviewer's best estimate. It can never be left blank. Also check that, when provided, the date of birth and age are consistent. If these responses are inconsistent, discuss the problem with the interviewer.

If at all possible, an effort should be made to revisit the respondent to resolve the inconsistency since age is one of the most important pieces of information collected in the questionnaire. If a revisit cannot be scheduled, it may be necessary to look at other information in the household and individual questionnaires in an effort to resolve the inconsistency. Items that should be considered include:

- Age recorded for respondent in Household Questionnaire
- Number of live births
- Date of birth of respondent's first child.

If the respondent's age is either less than '15' or more than '49', write 'NOT ELIGIBLE' on the cover of the Questionnaire for Individual Women. This questionnaire should not be processed. Also check, and correct if necessary, the eligibility status of this woman in the Household Questionnaire. Remember that corrections to the Household Questionnaire can only be made on the basis of information in individual questionnaires if the information collected changes the eligibility status.

- (4) In the Child Mortality module, check that CM9 is equal to the sum of the six values in CM4, CM6 and CM8. CM9 must have a code filled in. If the respondent has never had any births, the interviewer should have recorded '2' in CM1 and left the rest of the questions blank.
- (5) Also in the Child Mortality module, for CM11, make sure that the date of the last birth is completed in DAYS, MONTHS, and YEARS and not, for example, in DAYS and MONTHS

- only. Since this date is used to decide the applicability of the Tetanus Toxoid and the Maternal and Newborn Health modules, information must exist at least for month and year of birth of the last child. If you find this information missing, the interviewer should be sent back to the household to determine the missing information. We need to know whether the baby was born during the 2-year period before the survey.
- (6) In this same module, for CM2A and CM2B for the first birth, use the respondent's age (WM8 and WM9 in the Women's Information Panel) and the age of her first-born child to check that she was at least 12 years of age at her first birth. Inconsistencies between the age of the respondent and the date of the first birth generally arise from the following circumstances:
    - (a) The child is not the respondent's own (biological) child
    - (b) The respondent's birth date/age (WM8 and/or WM9) are incorrect
    - (c) The birth date or age of the first child (CM2A and/or CM2B) is incorrect.
 A call-back should be made, if at all possible, to determine the source of error.
  - (7) Check the information in CM11 of the Child Mortality module to make certain there is a child born during the 2 years before the survey (even if the child has since died), in which case the child must be properly identified in CM12. If the respondent has had no births during the 2 years before the survey, the Tetanus Toxoid and the Maternal and Newborn Health modules must be blank.
  - (8) In the Tetanus Toxoid module, verify that the answer to TT3 is properly used in the filter before TT5. If the response to TT3 is 2 or greater, then TT5 through TT8 must be blank. Likewise, if the answer to TT3 is less than 2, then TT5 through TT8 must have information. If TT6 applies, verify that either TT7 or TT8 must have information.
  - (9) In the Maternal and Newborn Health module, if other answers are provided for MN2 and MN7, verify that answers were clearly specified. Also for MN11, check that the appropriate code was circled before the weight of the child in kilograms.
  - (10) In the Marriage/Union module, verify that MA1 to MA8 are completed and that the skip instructions were used. If the woman is not in a union (MA1 = 3), MA2 must be blank. MA3 and MA4 only apply to women not in union (MA1=3). However, MA4 must be blank if MA3 = 3. MA8 must have a response when either month or year of marriage/union is not known (MA6 = 9998).
  - (11) In the Contraceptive Use module, make sure that CP1 is completed and that the skip instruction was used. If the woman is currently pregnant (CP = 1), CP2 and CP3 must be blank. CP3 must also be blank when the woman indicated no use of contraception (CP2 = 2). If the answer to CP3 is 'Other', verify that the method is clearly specified in the space provided.

### EDITING THE QUESTIONNAIRE FOR CHILDREN UNDER FIVE

- (1) Check that the identification information for the Questionnaire for Children Under Five has been completed correctly. Information for cluster and household number must be the same as that on the Household Information Panel of the Household Questionnaire and the Questionnaire for Individual Women. Verify that the 'Child's name' and the 'Child's line number' (UF3 and UF4 in the Under-five Child Information Panel) are the same as reported in the Household Listing Form.
- (2) In the Under-five Child Information Panel, check for consistency between UF10 (Date of birth) and UF11 (Age). Note that 'DK' is only allowed for day of birth in UF10. If the age calculated from the date of birth is different from the age in UF11, and BR1 = 1 (Birth certificate seen), then

- correct UF11, otherwise check with the interviewer and, if necessary, send her back to the household for correction.
- (3) If the response for VA3 in the Vitamin A module is 'Other', verify that the response is clearly specified in the space provided.
  - (4) In the Breastfeeding module, check that, when applicable, BF3A through BF3H have answers.
  - (5) When reviewing the Care of Illness module, special attention must be paid to the answers provided to CA2A through CA2C. If CA7, CA9, CA11, CA13, and/or CA14 have 'Other' as a response, verify that these are clearly specified in the spaces provided.
  - (6) For each child with an immunization record that was seen by the interviewer ('Yes' in IM1 in the Immunization module), check that the date of each vaccination is consistent with the child's date of birth. For example, it cannot be prior to the date of birth. Check also that the dates for the three polio and the three DPT vaccinations are in chronological order.
  - (7) In the Anthropometry module, the measures of the children should lie within the ranges specified in Annex A4.1. If a measure falls outside the acceptable range, the measurer should revisit the household, re-measure the child, and check that the child's age has been correctly recorded. If AN4 = 6, that is, an 'Other' response was identified as a result for the measurement, verify that this is clearly specified in the space provided.

### **ORGANIZING QUESTIONNAIRES FOR RETURN TO THE OFFICE**

- (1) Put all the Questionnaires for Individual Women and for Children Under Five inside their respective Household Questionnaires. If there is more than one individual questionnaire in a household, organize them sequentially in ascending order of the line numbers of the respondents.
- (2) Organize all questionnaires in numerical order by household number within the cluster. Also, any continuation questionnaires (for example, if there are more than 15 people in a household) should be inside the primary questionnaire and should have 'CONTINUATION' written across the top of the cover sheet. The primary questionnaire for that set should say 'SEE CONTINUATION' across the top of the cover sheet. The continuation questionnaire should have all identification information written on it on the cover page.
- (3) Check the questionnaires in the cluster against the Supervisor's Control Sheet to make certain that:
  - (a) The correct number of Household Questionnaires are present
  - (b) The household final result codes are correct
  - (c) The correct number of individual questionnaires are present.

Remember, there must be a questionnaire assigned for each eligible woman and each child under five, except when the interview has not been conducted yet. The number of cases in which an individual questionnaire was not assigned (for women and children under five) needs to be closely monitored to avoid high non-response percentages. As a reference, the total response rates for individual questionnaires, estimated as the product of the Household Questionnaire response rate times the individual questionnaire response rate for women and children, respectively, should not be below 90 per cent.

### **FORWARDING QUESTIONNAIRES TO THE HEAD OFFICE**

Once all the checking described above has been completed, and any differences have been reconciled, the questionnaires are ready to be sent to the central office. The director of field operations will provide specific instructions about how and when to send the questionnaires from each cluster. It is very



important that questionnaires are bundled and labelled properly, and protected from dampness and dust. Follow these instructions to the letter to avoid the loss of questionnaires or information. **[SURVEY COORDINATORS: INCLUDE OR REPLACE WITH COUNTRY-SPECIFIC INSTRUCTIONS ON BUNDLING, LABELLING AND SHIPMENT.]**

### Annex A4.1 Limits for Length and Weight of Children

In editing the length and weight of children to ensure that no data entry errors are made, the following values are used as the minimum and maximum expected values. The ranges are dependent on the sex and age of the child and are given in centimetres for the length (height) of the child and kilograms for the weight of the child.

Age in Months	LENGTH/HEIGHT (cm)				WEIGHT (kg)			
	Males		Females		Males		Females	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
0–2	36.0	74.0	36.0	72.0	0.5	10.0	0.5	9.0
3–5	45.0	83.0	44.0	80.0	1.0	13.0	1.0	12.0
6–8	51.0	87.0	50.0	86.0	2.0	15.0	2.0	14.0
9–11	56.0	91.0	54.0	90.0	3.0	16.5	2.5	15.5
12–14	59.0	96.0	57.0	95.0	4.0	17.5	3.0	16.5
15–17	62.0	100.0	60.0	99.0	4.0	18.5	3.5	17.5
18–20	64.0	104.0	62.0	102.0	4.0	19.5	3.5	18.5
21–23	65.0	107.0	64.0	106.0	4.5	20.5	4.0	19.5
24–26	67.0	108.0	66.0	107.0	4.5	23.0	4.5	21.5
27–29	68.0	112.0	68.0	111.0	5.0	24.0	5.0	23.0
30–32	70.0	115.0	69.0	114.0	5.0	24.5	5.0	24.5
33–35	71.0	118.0	71.0	117.0	5.0	25.5	5.0	25.5
36–38	73.0	121.0	72.0	120.0	5.0	26.0	5.0	27.0
39–41	74.0	124.0	74.0	122.0	5.0	27.0	5.0	28.0
42–44	75.0	127.0	75.0	124.0	5.0	28.0	5.5	29.0
45–47	77.0	129.9	77.0	126.0	5.0	29.0	5.5	30.0
48–50	78.0	132.0	78.0	129.0	5.0	30.0	5.5	31.0
51–53	79.0	134.0	79.0	131.0	5.0	31.0	5.5	32.0
54–56	80.0	136.0	81.0	133.0	5.5	32.0	6.0	33.0
57–59	82.0	139.0	81.0	136.0	5.5	33.0	6.0	34.5

**Annex A4.2**  
**MICS3 Supervisor's/Editor's Control Sheet**

Cluster number: \_\_\_\_\_

Supervisor number: \_\_\_\_\_

Date: \_\_\_\_\_

HH No. (1)	Name of head of household (2)	Interviewer and date assigned (3)	Final result (4)	Number of eligible		Interviews completed		Notes (9)
				Women (5)	Children (6)	Women (7)	Children (8)	
Total:								

Interviewer number: \_\_\_\_\_ Date: \_\_\_\_\_

Notes: (continue on reverse side, if necessary)

# **APPENDIX FIVE**

## **ANTHROPOMETRIC TECHNIQUES**

### **SURVEY COORDINATORS:**

CUSTOMIZE THESE INSTRUCTIONS ON ANTHROPOMETRIC MEASUREMENTS TO YOUR COUNTRY'S QUESTIONNAIRES AND FIELDWORK PLANS. ENSURE THAT THESE INSTRUCTIONS ARE INCLUDED IN THE MANUALS FOR INTERVIEWERS, SUPERVISORS AND EDITORS.

EXTENSIVE TRAINING SHOULD BE PROVIDED TO FIELD STAFF ON USING ANTHROPOMETRIC EQUIPMENT. IT IS IMPORTANT THAT YOU USE THE TOOLS RECOMMENDED BY UNICEF. PREVIOUS EXPERIENCE HAS SHOWN THAT, IN MANY CASES, LOCALLY PRODUCED MEASURING BOARDS HAVE FAILED TO MEET THE QUALITY STANDARDS REQUIRED IN MICS SURVEYS, WHILE VARIOUS TYPES OF ALTERNATIVE SCALES (SUCH AS HANGING SCALES) HAVE PRODUCED IMPRECISE RESULTS.

FOR INFORMATION ON ORDERING ANTHROPOMETRIC EQUIPMENT, CONTACT THE GLOBAL MICS3 COORDINATOR AT UNICEF HEADQUARTERS IN NEW YORK.



seca

The UNICEF Electronic Scale 890

## The UNICEF Electronic Scale

The UNICEF Electronic Scale was designed to help health workers monitor the weight of children and pregnant women.

The scale makes weighing fast, easy and accurate. It can be used in two ways:

1. Pregnant mothers or older children can line up for weighing, stepping on the scale one after the other.
2. Babies and very small children can be weighed while being held in the arms of a mother or helper. This second method of weighing is called 'tared weighing'.

The scale is powered by long-lasting lithium batteries. The batteries should last for at least 1 million weighing cycles, or 400 weighings every day of the year (except weekends and holidays) for at least 10 years. The batteries and the electronic 'heart' of the scale are in a sealed unit to withstand damage from heat, humidity and dust. The solar cell is used only to turn the scale on and to tare the scale.

The scale switches off automatically if it is not used for 2 minutes. This helps preserve the life of the battery.

## Preparing the UNICEF Electronic Scale for use:

1. Place the scale on a hard, level surface (wood, concrete or firm earth). Soft or uneven surfaces may cause small errors in weighing.
2. *The scale will not function correctly if it becomes too warm.* It is best to use the scale in the shade, or indoors. If the scale becomes hot and does not work correctly, place it in a cooler area and wait 15 minutes before using it again.
3. The scale must adjust to changes in temperature. If the scale is moved to a new site with a different temperature, wait for 15 minutes before using it again.
4. Handle the scale carefully:
  - Do not drop or bump the scale.
  - Do not weigh loads totalling more than 150 kilograms.
  - Protect the scale from excess moisture or humidity.
  - Do not use the scale at temperatures below 0° C or above 45° C.

## Cleaning the scale


To clean the scale, wipe surfaces with a damp cloth. *Never put the scale into water.*

## Storing the scale

Do not store the scale in direct sunlight or other hot places.

## Weighing an infant or young child held by a health worker or helper (tared weighing)

### NOTE:

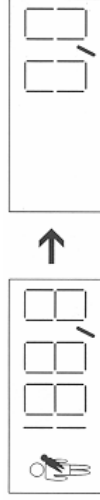
-  is used to represent the mother and child image that appears on the left side of the display whenever the scale has been tared.
1. Turn the scale on by covering the solar cells for less than 1 second.

The display should show  188.8 first, then 0.0.

Wait until the display shows 0.0 before stepping on the scale.



*Cover the solar cells for less than 1 second.*

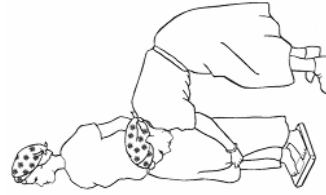


The scale is preparing itself for use.

2. Ask your helper to stand on the scale. Make sure the solar cells are not covered by a skirt or the person's feet. Your helper's weight will appear on the display within 2 seconds.

#### NOTE:

The person being weighed must stand still on the scale.



Your helper's weight appears on the display.

3. With your helper standing still on the scale, cover the solar cell for less than 1 second. The display will read . The small picture of the mother and baby means the scale is adjusting (taring) itself to ignore the helper's

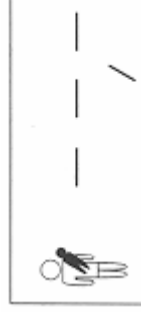
weight and preparing to weigh only the baby.



Cover the solar cells for less than 1 second to tare the helper's weight. Once tared, the display will show .

4. The helper can now get off the scale to get the baby. Alternatively, the mother can hand the baby to her.

If the helper gets off the scale to get the baby, the display will show .



If the helper gets off the scale, the display shows that the scale has been tared for the helper's weight.

5. After the helper steps back onto the scale and holds the baby, only the weight of the baby will be displayed.

Record the baby's weight.

#### NOTE:

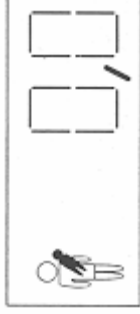
The scale will continue to show only the weight of the baby until the solar cell is covered or the helper returns the baby to its mother.



Now the helper can hold the baby and get back on the scale. Only the baby's weight will show on the display.

6. After the baby is given back to its mother, the display will again show (as long as the helper remains standing on the scale). If the helper steps off the scale to get another baby, the display will show .





*If the helper gives the baby to someone else to hold, the tared scale will again display 0.0.*

7. Repeat steps 4 and 5 to weigh another baby.

*Remember: The scale switches off automatically 2 minutes after the last weighing. If this happens, follow the instructions to turn it on again.*

## Taring weights: Important points

- The weight of the person who will hold the child must be displayed (and then tared) before the child is given to her for weighing.
- The same person whose weight is tared must also hold the child.
- The weight of the child being weighed must be more than 2 kilograms if the helper stays on the scale to receive the child.
- If the helper gets off the scale to get a child while the display shows 0.0 (tared weighing mode), the next child can weigh less than 2 kilograms.

- The tare can be de-activated by quickly covering the solar cell or by waiting until the scale switches off automatically.

- The scale will always display 0.0 if the new load weighs less than the tared weight.
- If there is too much movement on the scale during measurement, the display will switch between 1. and .1 until the load becomes stable.

## Possible reasons for the scale not taring weight:

- There was no weight on the scale to tare. Put some weight on the scale and try again.
- The solar cell was not covered completely.
- The solar cell was covered for more than 1 second. Try covering it for less than 1 second.
- It is too dark. Put the scale in a brighter place.
- The load weighs more than 120 kilograms. Use a lighter load.

## What to do if the scale display shows . . .

### E01:

The scale has to adjust itself. Get off the scale and wait until E01 no longer appears.

### E02

#### and switches off automatically:

Make sure there is no load on the scale and try to start the scale.

### E03

#### and switches off automatically:

The scale is either too cold or too hot.

Move it to a different place where the

temperature is between 0° C and 45° C.

Wait 15 minutes for it to adjust to the new temperature, then start the scale.

### E04

#### after measuring:

The load is too heavy (more than 150 kilograms). Get off the scale and reduce the load.

### E05

#### for a few seconds after trying to start the tare function:

The load is too heavy for taring (more than 120 kilograms). Get off the scale and reduce the load.

## INSTRUCTIONS FOR SUPERVISORS AND EDITORS

### MEASURING PROCEDURES AND PRECAUTIONS

**(1) Procedures directed to specific individuals**

The procedures to be followed in measuring a child are directed to specific individuals, that is, the **measurer** and/or the **assistant**, indicated in bold type at the beginning of each step.

**(2) Two trained people required**

Two trained people are required to measure a child's height and length. The measurer holds the child and takes the measurements. The assistant helps hold the child and records the measurements on the questionnaire. If there is an untrained assistant, such as the mother, then the trained measurer should also record the measurements on the questionnaire. One person alone can take the weight of a child and record the results if an assistant is not available.

**(3) Placement of the measuring board and scale**

Begin to observe possible places where the electronic scale and board can be positioned as soon as you walk into a sample household. Be selective about where you place the measuring board and electronic scale. During daylight hours, it is best to measure outdoors. If it is cold, rainy or if too many people congregate and interfere with the measurements, it may be more comfortable to weigh and measure a child indoors. Make sure there is adequate light.

**(4) Assessing the age of the child**

Before you measure, determine the child's age. If the child is less than 2 years old, measure length. If the child is 2 years of age or older, measure height. If accurate age is not possible to obtain, measure length if the child is less than 85 centimetres. Measure height if the child is equal to or greater than 85 centimetres.

**(5) When to weigh and measure**

Begin weighing and measuring after verbal information has been recorded on the questionnaire. This will allow you to become familiar with the members of the household. DO NOT weigh and measure at the beginning of the interview, that is, as soon as you enter a household, since this would likely be perceived as overly intrusive.

**(6) Weigh and measure one child at a time**

In cases when there is more than one eligible child of the same mother/caretaker, complete all the questionnaires for the mother/caretaker, and then weigh and measure her/his children. If there is more than one eligible child and more than one mother/caretaker, you should be careful about the timing of the measurements, and use your judgement in such cases. If you think that leaving all of the measurements until after the completion of all questionnaires will cause confusion and errors, then you must carry out measurements of children by the same mother/caretaker once the questionnaires administered to that mother/caretaker have been completed, and then move on to the next mother/caretaker. However, in reality, it is often the case that interviewing all mothers/caretakers first, and measuring all children at the end is more practical – use this option if you are sure that this will not cause confusion.

**(7) Control the child**

When you weigh and measure, you must control the child. The strength and mobility of even very young children should not be underestimated. Be firm yet gentle. Your own sense of calm and self-confidence will be felt by the mother and the child.

When a child comes into contact with any measuring equipment, that is, a measuring board or electronic scale, you must hold the child so that he or she doesn't trip or fall. Never leave a child alone with a piece of equipment. Always maintain physical contact with the child, except for the few seconds while taking his or her weight.

**(8) Coping with stress**

Since weighing and measuring requires touching and handling children, normal stress levels for this type of survey work are higher than for surveys where only verbal information is collected.

Explain the weighing and measuring procedures to the mother and, to a limited extent, the child, to help minimize possible resistance, fear or discomfort. You must determine if the child or mother is under so much stress that the weighing and measuring must stop. Remember, young children are often uncooperative; they tend to cry, scream, kick and sometimes bite. If a child is under severe stress and is crying excessively, try to calm the child or return the child to the mother for a moment before proceeding with the weighing and measuring.

Do not weigh or measure a child if:

- The mother refuses.
- The child is too sick or too distressed.
- The child is physically deformed, which will interfere with or give an incorrect measurement. To be kind, you may want to measure such a child and make note of the deformity on the questionnaire.

**(9) Recording measurements and being careful**

Record the measurements in pen. If you make an error, cancel it and rewrite the correct numbers. Keep objects out of your hands and pens out of your mouth, hair or breast pocket when you weigh and measure so that neither you nor the child will get hurt due to carelessness. When you are not using a pen, place it in your equipment pack, pen case or on the survey form. Make sure you do not have long fingernails. Remove rings and watches before you weigh and measure to prevent them from getting in the way. Do not smoke when you are in a household or when you weigh and measure.

**(10) Strive for improvement**

You can be an expert measurer if you strive for improvement and follow every step of every procedure the same way every time. The quality and speed of your measurements will improve with practice. You may be working with a partner to form a team. If so, you will be responsible not only for your own work, but that of your team.

You will be required to weigh and measure many children. Do not take these procedures for granted, even though they may seem simple and repetitious. It is easy to make errors when you are not careful. Do not omit any steps. Concentrate on what you are doing.

## NUTRITIONAL STATUS MEASUREMENT

### SUMMARY PROCEDURES

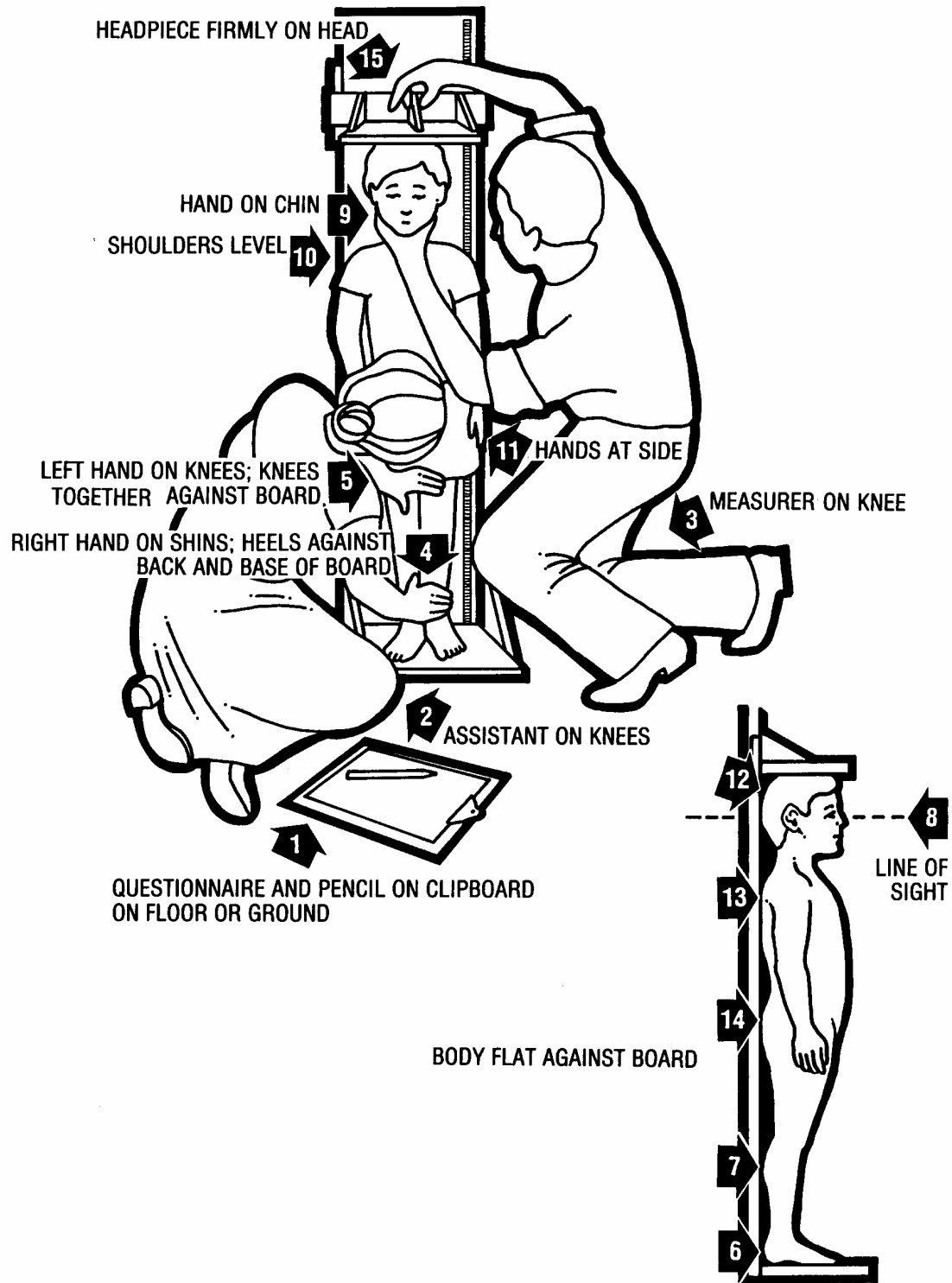
#### MEASURING A CHILD'S HEIGHT: SUMMARY OF PROCEDURES (SEE ILLUSTRATION 1) <sup>1</sup>

- (1) **Measurer or assistant:** Place the measuring board on a hard flat surface against a wall, table, tree, staircase, etc. Make sure the board is stable.
- (2) **Measurer or assistant:** Ask the mother to remove the child's shoes and unbraid any hair that would interfere with the height measurement. Ask her to walk the child to the board and to kneel in front of the child (if she is not the assistant).
- (3) **Assistant:** Place the questionnaire and pen on the ground (Arrow 1). Kneel with both knees on the right side of the child (Arrow 2).
- (4) **Measurer:** Kneel on your right knee only, for maximum mobility, on the child's left side (Arrow 3).
- (5) **Assistant:** Place the child's feet flat and together in the centre of and against the back and base of the board. Place your right hand just above the child's ankles on the shins (Arrow 4), your left hand on the child's knees (Arrow 5), and push against the board. Make sure the child's legs are straight and the heels and calves are against the board (Arrows 6 and 7). Tell the measurer when you have completed positioning the feet and legs.
- (6) **Measurer:** Tell the child to look straight ahead at the mother if she is in front of the child. Make sure the child's line of sight is level with the ground (Arrow 8). Place your open left hand on the child's chin. Gradually close your hand (Arrow 9). Do not cover the child's mouth or ears. Make sure the shoulders are level (Arrow 10), the hands are at the child's side (Arrow 11), and the head, shoulder blades and buttocks are against the board (Arrows 12, 13 and 14). With your right hand, lower the headpiece on top of the child's head. Make sure you push through the child's hair (Arrow 15).
- (7) **Measurer and assistant:** Check the child's position (Arrow 1-15). Repeat any steps as necessary.
- (8) **Measurer:** When the child's position is correct, read and call out the measurement to the nearest 0.1 centimetre. Remove the headpiece from the child's head, your left hand from the child's chin and support the child during the recording.
- (9) **Assistant:** Immediately record the measurement and show it to the measurer.  
**NOTE:** If the assistant is untrained, the measurer records the height.
- (10) **Measurer:** Check the recorded measurement on the questionnaire for accuracy and legibility. Instruct the assistant to cancel and correct any errors.

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<sup>1</sup> If the assistant is untrained (for example, the mother), then the measurer should help the assistant with the height procedure.

ILLUSTRATION 1. MEASURING A CHILD'S HEIGHT



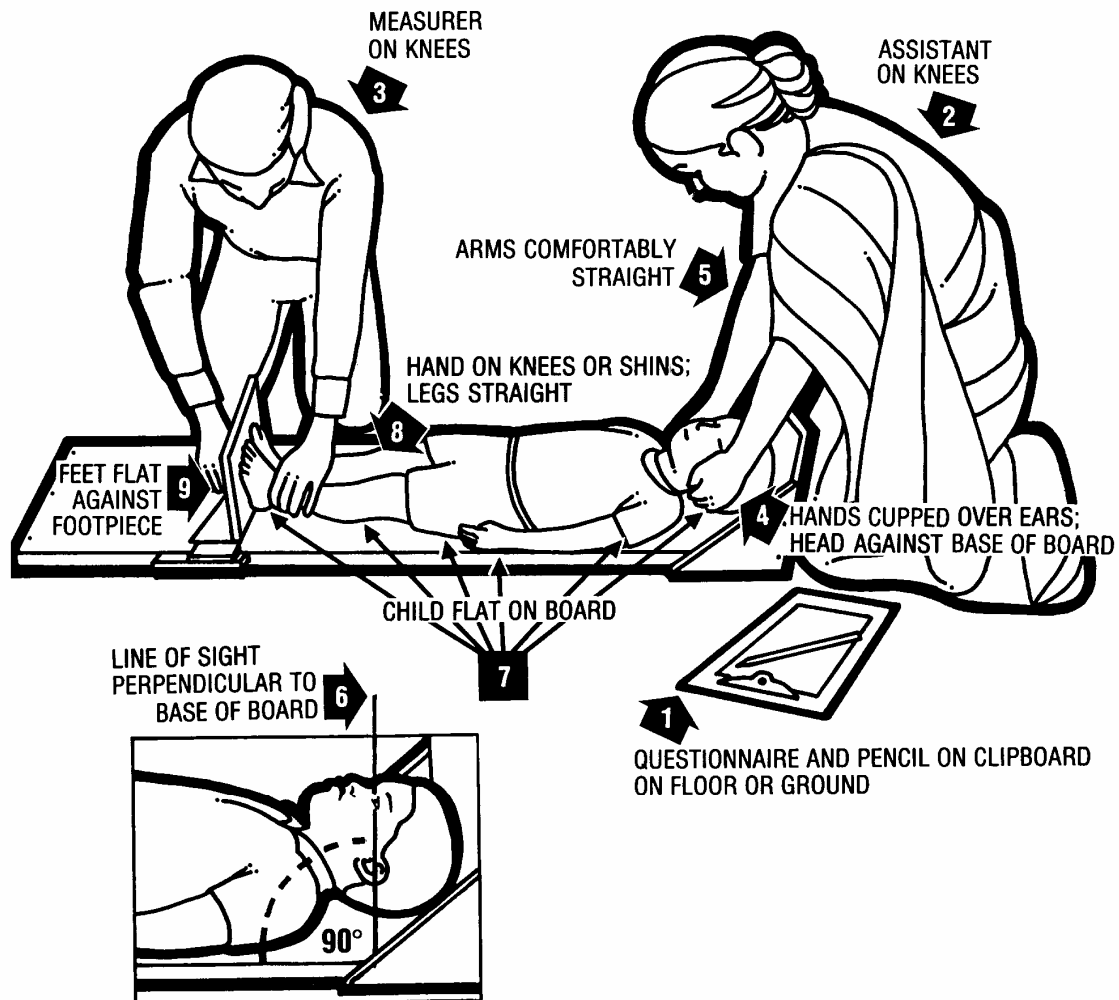
**MEASURING A CHILD'S LENGTH: SUMMARY OF PROCEDURES ( SEE ILLUSTRATION 2)<sup>2</sup>**

- (1) **Measurer or assistant:** Place the measuring board on a hard flat surface, such as the ground, floor or a steady table.
- (2) **Assistant:** Place the questionnaire and pencil on the ground, floor or table (Arrow 1). Kneel with both knees behind the base of the board, if it is on the ground or floor (Arrow 2).
- (3) **Measurer:** Kneel on the right side of the child so that you can hold the footpiece with your right hand (Arrow 3).
- (4) **Measurer and assistant:** With the mother's help, lay the child on the board by doing the following:  
**Assistant:** Support the back of the child's head with your hands and gradually lower the child onto the board.  
**Measurer:** Support the child at the trunk of the body.
- (5) **Measurer or assistant:** If she is not the assistant, ask the mother to kneel on the opposite side of the board facing the measurer to help keep the child calm.
- (6) **Assistant:** Cup your hands over the child's ears (Arrow 4). With your arms comfortably straight (Arrow 5), place the child's head against the base of the board so that the child is looking straight up. The child's line of sight should be perpendicular to the ground (Arrow 6). Your head should be straight over the child's head. Look directly into the child's eyes.
- (7) **Measurer:** Make sure the child is lying flat and in the centre of the board (Arrow 7). Place your left hand on the child's shins (above the ankles) or on the knees (Arrow 8). Press them firmly against the board. With your right hand, place the footpiece firmly against the child's heels (Arrow 9).
- (8) **Measurer and assistant:** Check the child's position (Arrows 1-9). Repeat any steps as necessary.
- (9) **Measurer:** When the child's position is correct, read and call out the measurement to the nearest 0.1 centimetre. Remove the footpiece, release your left hand from the child's shins or knees and support the child during the recording.
- (10) **Assistant:** Immediately release the child's head, record the measurement and show it to the measurer.  
**NOTE:** If the assistant is untrained, the measurer records the length on the questionnaire.
- (11) **Measurer:** Check the recorded measurement on the questionnaire for accuracy and legibility. Instruct the assistant to cancel and correct any errors.

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<sup>2</sup> If the assistant is untrained (for example, the mother), then the measurer should help the assistant with the length procedure.

ILLUSTRATION 2. MEASURING A CHILD'S LENGTH



# APPENDIX SIX

## DATA EDITING GUIDELINES

This appendix provides guidelines that are to be used during data entry and secondary editing. The guidelines offer detailed instructions on handling inconsistencies in the data. You should refer to these guidelines whenever you see an unfamiliar error message. It is imperative that you follow the guidelines: They will improve the quality and flexibility of your data and ensure that your survey is comparable to other MICS3 surveys.

The guidelines below are listed in ascending order of error message number. Each error message in the data-entry and editing applications has a four digit number. The first position is equal to 0 if the message concerns the Household Questionnaire, 1 if the message concerns the Questionnaire for Individual Women, 2 if the message concerns the Questionnaire for Children Under Five and 9 if the message is not specific to a particular questionnaire type.

Immediately after the error message number is an alphanumeric code that identifies the type of the message. The four possible types of error message are:

- D      An inconsistency discovered during data entry that must be resolved
- W      An inconsistency discovered during data entry that must be checked but not necessarily resolved
- E      An inconsistency discovered during editing that must be resolved
- M      An inconsistency discovered during editing that must be checked but not necessarily resolved.

Following the error message number and type is the text of the error message. Many messages appear in both the data-entry and editing applications and have slightly different wording in each. For these error messages, the text listed is the text of the error message in the data-entry application; the text in the editing application is usually substantively the same but provides more information about the data.

On the line below the error message number, type and text are the guidelines for correction. If a message appears in both the data-entry and editing applications and should be handled differently in these two contexts, the guidelines will make this clear. In general, the MICS approach is to look for keying errors during data entry, leaving complex inconsistencies unchanged. During secondary editing, complex inconsistencies are thoroughly investigated and, when appropriate, corrected.



## HOUSEHOLD QUESTIONNAIRE

Message

Number

Code

Description

### **0010      D      Cluster number not valid**

The cluster number is either outside the range specified in the sample design or is not equal to the cluster number entered in the data-entry menu. Quit the data-entry program, correct the cluster number and then restart the data-entry program. The data-entry supervisor should be informed that data files with an incorrect cluster number have been created on the computer.

### **0011      D   E   Cluster identification is incorrect**

A data-entry operator enters all of the questionnaires for a particular cluster into a single file. Within a cluster, all of the geographic identification information for each questionnaire must be identical, and each of the identification information variables must be consistent with the cluster number. If any information, such as urban/rural, province or district is inconsistent with the cluster number or is different from the previous questionnaire's identification information, then the identification information *must* be corrected.

### **0012      W      Household number not in increasing order**

Within a cluster, households should be entered in ascending order by household number. When this message is displayed, double-check that the household number has been correctly entered. If the household number has been correctly entered and the household is truly out of order, do not make any changes. After you finish with the current household, sort the remaining questionnaires in ascending order by household number so that this message will not be displayed again.

### **0013      D   E   More children interviewed than total number of eligible children**

On the household cover sheet, the total number of children interviewed (HH15) cannot be larger than the total number of children under the age of five (HH14). Count the number of under-fives in the household schedule and the number of under-five questionnaires. Use these numbers to correct HH14 and HH15. If the number of questionnaires exceeds the number of under-fives in the Household Listing, you must correct the Household Listing (by correcting the eligibility code HL8). In rare cases, this may require you to add a new household member to the Household Listing (use this option only if you are sure that the extra questionnaire does not match any existing household member).

### **0014      D   E   More women interviewed than total number of eligible women**

On the household cover sheet, the total number of women interviewed (HH13) cannot be larger than the total number of women aged 15 to 49 (HH12). Count the number of eligible women in the household schedule and the number of women's questionnaires. Use these numbers to correct HH12 and HH13. If the number of questionnaires exceeds the number of eligible women in the Household Listing, you must correct the Household Listing (by correcting the eligibility code HL6). In rare cases, this may require you to add a new household member to the Household Listing (use this option only if you are sure that the extra questionnaire does not match any existing household member).

**0015      D   E   More eligible women and children < 5 than household members**

The number of eligible women and children on the Household Information Panel (that is, the sum of HH12 and HH14) must be less than or equal to the number of household members (HH11). Check that HH12 and HH14 are correct by counting the number of eligible women and under-fives in the household schedule; if they are not, correct them. Once HH12 and HH14 are correct, count the number of household members in the household schedule and set HH11 equal to this number.

**0016      D   E   Date of interview impossible**

The date of interview must be a valid date: The day must agree with the month and year, and the date must be earlier than the current date and later than the date of the start of the survey. Check that the date of interview specified on the questionnaire has been correctly entered; if not, enter it correctly. If the questionnaire is a Household Questionnaire, compare the date of interview to the date of interview for any individual questionnaires in the household. If the questionnaire is an individual questionnaire, compare the date of interview to the date of interview for the Household Questionnaire and any other individual questionnaires. If no such comparison questionnaires exist, compare the date of interview to the dates of interview for other households in the cluster and to the fieldwork dates for that cluster. Correct the error using one of these sources of information and your judgement.

**0090      W   E   Level and grade of education inconsistent**

The highest grade completed at a particular level must be less than or equal to the maximum grade at that level. Check that the level and grade have been correctly entered; if not, enter them correctly. If the data have been correctly entered, check if an error may have occurred in the form in which the answer was recorded. For example, the interviewer may have recorded the total number of years of schooling rather than the grade at the reported level. For example, if the reported level of education is secondary, the response to the highest grade should be between 01 and 06. If the response recorded for the grade is 07, this is probably a mistake due to treating secondary education as grades 7 through 12. In this case, the grade should be changed to 01. Finally, if there is an individual questionnaire for this household member, you can try to resolve the problem by checking the values of variables WM11 and WM12.

If the inconsistency cannot be resolved by any of the methods above, change the number of years of schooling to 97 (inconsistent). (These editing instructions should be adapted to fit the educational system in your country).

**0091      D   E   Current level of education (ED6A=%02d) greater than highest level (ED3A=%02d)**

The household member's current level of education cannot exceed her highest level of education. Check that ED3A and ED6A have been correctly entered; if not, enter them correctly. If the values on the questionnaire have been correctly entered but are inconsistent, check the values of ED8A (if applicable) and WM11 (if there is an individual questionnaire for this household member). If you cannot use this information to resolve the problem, set ED3A equal to ED6A unless it is clear that ED6A is incorrect; in this case, set ED6A equal to ED3A.

**0092      W   E   Current grade of education (ED6B=%02d) greater than highest grade (ED3B=%02d) plus one [two]**

If a household member's current and highest level are the same, her current grade of education should not be more than one grade higher than her highest completed grade. If this error occurs during data entry, check for keying errors and correct any that are found; if none are found, leave the data unchanged. During editing, this check is relaxed by making the allowable difference two grades (to accommodate children who skip a grade), but no more. If the gap between maximum grade and current grade is larger than two, try to resolve the inconsistency by checking for keying errors and by examining variables ED8B (if applicable) and WM12 (if the household member has an individual questionnaire). If you cannot resolve the inconsistency, set ED6B equal to 97 (inconsistent).

**0093      D   E   Previous year's level of education (ED8A=%02d) greater than highest level (ED3A=%02d)**

The household member's level of education last year cannot exceed her highest level of education. Check that ED3A and ED8A have been correctly entered; if not, enter them correctly. If the values on the questionnaire have been correctly entered but are inconsistent, check the values of ED6A (if applicable) and WM11 (if there is an individual questionnaire for this household member). If you cannot use this information to resolve the problem, set ED3A equal to ED8A unless it is clear that ED8A is incorrect; in this case, set ED8A equal to ED3A.

**0094      W   E   Previous year's grade of education (ED8B=%02d) greater than highest grade (ED3B=%02d) plus one [two]**

If a household member's previous year's and highest level are the same, her previous year's grade of education should not be more than one grade higher than her highest completed grade. If this error occurs during data entry, check for keying errors and correct any that are found; if none are found, leave the data unchanged. During editing, this check is relaxed by making the allowable difference two grades (to accommodate children who skip a grade), but no more. If the gap between maximum grade and the previous year's grade is larger than two, try to resolve the inconsistency by checking for keying errors and by examining variables ED6B (if applicable) and WM12 (if the household member has an individual questionnaire). If you cannot resolve the inconsistency, set ED8B equal to 97 (inconsistent).

**0101      D   E   This household member is eligible; enter her line number**

For any female household member aged 15-49, HL6 must equal her line number. Check that the values of variables HL4, HL5 and HL6 have been entered correctly; if not, enter them correctly. If the values on the questionnaire have been correctly entered but are inconsistent, check whether there is a Questionnaire for Individual Women for this household member. If there is, set HL6 equal to HL1.

If there is no individual questionnaire for the household member and you cannot determine that her age or sex is incorrect, you must assume that the age and sex information on the questionnaire is correct. Set HL6 equal to HL1 and create a women's questionnaire for her. On a blank woman's questionnaire, fill out the identification variables using the information on the Household Questionnaire, circle response code '6' and write 'not interviewed' in the space provided. You may also have to correct the values of variables HH12, HH13 and TOHL6 and update the cluster control sheet and the cluster tracking form to reflect the change in the number of eligible women.

**0102 D E This household member is ineligible; enter 0**

For any household member who is not a woman aged 15-49, HL6 must equal 0. Check that the values of variables HL4, HL5 and HL6 have been entered correctly; if not, enter them correctly. If there is an individual questionnaire for this household member, use it to correct HL4 and HL5. If there is no women's questionnaire and HL4 and HL5 appear to be correct, set HL6 equal to 0. You may also have to correct the values of variables HH12, HH13 and TOHL6 and update the cluster control sheet and the cluster tracking form to reflect the change in the number of eligible women.

**0110 D E Total %s doesn't equal number in household listing**

The counts of various types of household members at the end of the Household Listing Form must equal the actual number of such household members in the Household Listing. If there is a discrepancy, check first for keying errors and correct any that you find. If there are no keying errors, carefully count the number of household members of the particular type. Set the total equal to this number.

**0111 D E Total %s (%02d) doesn't equal number on the cover sheet (%s=%02d)**

The counts of eligible women and under-fives at the end of the Household Listing Form (variables TOHL6 and TOHL8, respectively) must equal the same values on the Household Information Panel (variables HH12 and HH14, respectively). If there is a discrepancy, check first for keying errors and correct any that you find. If there are no keying errors, carefully count the number of eligible women and under-fives. Set HH12 and TOHL6 equal to the number of eligible women and HH14 and TOHL8 equal to the number of under-fives.

**0120 D E Caretaker's line number (HL7=%02d) greater than number of household members (HH11=%02d)**

The line number of the caretaker of a child aged 5-14 (that is, the value of variable HL7) must be a valid line number. Check that the value of variable HL7 has been entered correctly; if not, enter it correctly. If this does not resolve the problem, identify the most likely caretaker for the child using variables HL3, HL10 and HL12 and set HL7 equal to his or her line number.

**0121 D E This child is eligible; enter caretaker's line number**

For any household member aged 5-14, HL7 must be equal to her caretaker's line number. Check that the values of variables HL5 and HL7 have been entered correctly; if not, enter them correctly. If the values on the questionnaire have been correctly entered but are inconsistent, you must assume that the age information on the questionnaire is correct. If HL10 has a valid value and does not equal zero, set HL7 equal to HL10. If HL10 has an invalid value or is equal to zero and HL12 has a valid value and does not equal zero, set HL7 equal to HL12. If neither of these solutions is possible, use your judgement to determine the line number of the child's caretaker. You may also need to correct variable TOHL7.

**0122 D E This household member is ineligible; enter 0**

For any household member not aged 5-14, HL7 must be equal to zero. Check that the values of variables HL5 and HL7 have been entered correctly; if not, enter them correctly. If the values on the questionnaire

have been correctly entered but are inconsistent, you must assume that the age information on the questionnaire is correct and set HL7 equal to zero. You may also need to correct variable and TOHL7.

**0130 D E Caretaker's line number (HL8=%02d) greater than number of household members (HH11=%02d)**

The line number of the caretaker of a child aged 0-4 (that is, the value of variable HL8) must be a valid line number. Check that the value of variable HL8 has been entered correctly; if not, enter it correctly. If the value on the questionnaire has been entered correctly but is inconsistent, check the value of variable UF6 on the Questionnaire for Children Under Five for this child. Set HL8 equal to this value. If this does not resolve the problem, identify the most likely caretaker for the child using variables HL3, HL10 and HL12 and set HL8 equal to his or her line number.

**0131 D E This child is eligible; enter caretaker's line number**

For any household member aged 0-4, HL8 must be equal to her caretaker's line number. Check that the values of variables HL5 and HL8 have been entered correctly; if not, enter them correctly. If the values on the questionnaire have been correctly entered but are inconsistent, check whether there is an under-five questionnaire for this household member. If there is, set HL6 equal to UF6.

If there is no individual questionnaire for the household and you cannot determine that her age is incorrect, you must assume that the age information on the questionnaire is correct. Assign a valid value to HL8 using the procedure laid out for error message 0121. Once you have done this, you must create an under-five questionnaire for this household member. On a blank under-five questionnaire, fill out the identification variables using the information on the Household Questionnaire, circle response code '6' and write 'not interviewed' in the space provided. You may also have to correct the values of variables HH14, HH15 and TOHL8 and update the cluster control sheet and the cluster tracking form to reflect the change in the number of under-fives.

**0132 D E This household member is ineligible; enter 0**

For any household member not aged 0-4, HL8 must be equal to zero. Check that the values of variables HL5 and HL8 have been entered correctly; if not, enter them correctly. If the values on the questionnaire have been correctly entered but are inconsistent, check whether there is an under-five questionnaire for this household member. If there is, use it to correct HL5. If there is no individual questionnaire and HL5 appears to be correct, set HL6 equal to zero. You may also have to correct variables HH14, HH15 and TOHL8 and update the cluster control sheet and the cluster tracking form to reflect the change in the number of under-fives.

**0141 W M The head of household must be on line 1**

The head of household should be listed on the first line of the household schedule and nowhere else. Check for data-entry errors and correct any that you find. If this does not resolve the inconsistency and there are two heads of household listed in the Household Listing, change the line number of the second head of household to 97 unless you can determine his or her relation to the head of household. In all other cases, leave the data unchanged.

**0142      W   M   HL1=02%d: The spouse of the head of household should be of the opposite gender**

The head of household and her/his spouse are generally of opposite genders. If they are not, check for keying errors in variables HL3 and HL4. If you cannot resolve the problem, leave the data unchanged.

**0143      W   M   The head of household is less than %02d years older than his/her child (HL1=%02d)**

For each country there is a minimum age at birth of first child (the default value is 144 months or 12 years). If the age difference between the head of household and her/his children is less than this minimum difference, check for keying or interviewer errors in variables HL3 and HL5. If you cannot resolve the problem, leave the data unchanged.

**0145      W   M   The head of household is less than %02d years older than his/her grandchild (HL1=%02d)**

For each country there is a minimum age at birth of first child (the default value is 144 months or 12 years). If the age difference between the head of household and her/his grandchildren is less than twice this minimum difference, check for keying or interviewer errors in variables HL3 and HL5. If you cannot resolve the problem, leave the data unchanged.

**0146      W   M   The head of household (HL1=1) is less than %02d years younger than his/her parent (HL1=%02d)**

For each country there is a minimum age at birth of first child (the default value is 144 months or 12 years). If the age difference between the head of household and her/his parent is less than this minimum difference, check for keying or interviewer errors in variables HL3 and HL5. If you cannot resolve the problem, leave the data unchanged.

**0161      D   E   %s line number (HL10/HL12=%02d) greater than number of household members (HH11=%02d)**

The line number of the child's mother (HL10) and father (HL12), if not missing, cannot be greater than the number of household members (HH11). Check for keying errors in HL10 or HL12. If this does not resolve the problem, check the values of variables HL7, HL8 and HL3. If you cannot resolve the inconsistency, set HL10 or HL12 equal to 97.

**0162      D   E   %s line number (HL10/HL12=%02d) equals child's line number (HL1=%02d)**

A child cannot be his or her own mother (HL10) or father (HL12). Check for keying errors in HL10 or HL12. If this does not resolve the problem, check the values of variables HL7, HL8 and HL3. If you cannot resolve the inconsistency, set HL10 or HL12 equal to 97.

**0163            W   M   Mother's line number (HL10=%02d) doesn't equal caretaker's line number (%s=%02d)**

The value of HL10 indicates that the child's mother is in the household, but she is not the child's primary caretaker according to HL7 or HL8. This situation is possible but unusual. Check for keying errors in variables HL10 and HL7 or HL8. If this does not resolve the situation, check the values of variables HL3, HL7, HL8 and HL10. If you can determine the source of the inconsistency using these variables, correct it; otherwise, leave the data uncorrected.

**0164            W   E   HL1=%02d: Either sex (HL4=%01d) or age (HL5=%02d) of %s (%s=%02d) incorrect**

A child's mother must be female and the gap between her age and the child's age must not be smaller than the minimum generation gap. A child's father must be male and the difference between his age and the child's age must not be smaller than the minimum generation gap. Check HL10 or HL12, the child's and parents' ages (HL5) and the parents' sex (HL4) for keying errors. If none are found and this message appears during data entry, leave the data unchanged.

During editing, you must resolve this inconsistency. If, after reviewing the Household Listing and any relevant individual questionnaires, you cannot determine a valid line number for the child's parent, set HL10 or HL12 equal to 97.

**0171            E   HL1=%02d: Relationship (HL3=%02d) between %s (%s=%02d, HL3=%02d) and child not correct**

The variables HL10 and HL12 give the line number of a household member's mother and father, respectively, if they live in the household. The variable HL3 gives a household member's relationship to the head of household. The household member's relationship to the head of household must be consistent with his mother and/or father's relationship to the head of household. For example, if a household member is the son of the head of household, his mother must either be the head of household or the spouse of the head of household, with rare exceptions.

Check HL3, HL10 and HL12 for keying errors, and correct any that you find. If this does not resolve the inconsistency, check for interviewer errors and correct any that you find. If you are unable to resolve the inconsistency, set the most inconsistent relationship code to 97 (inconsistent).

**0172            E   HL1=%02d: Child has different %s (%02d vs %02d) in household according to relationship codes**

This message is closely related to message 0171. For each household member (henceforth, the original household member), the editing program searches for another household member who, based on her or his relationship to the head of household and the original household member's relationship to the head of household, could be the original household member's mother or father. If the line number of the potential mother or father does not equal HL10 or HL12, respectively, the error message above is produced.

Check HL3, HL10 and HL12 for keying errors, and correct any that you find. If this does not resolve the inconsistency, check for interviewer errors and correct any that you find. If you are unable to resolve the inconsistency, set the most inconsistent relationship code to 97 (inconsistent).

**0201      W   M   Child worked more than 80 hours in past week; please check values of CL4, CL6 and CL9**

It is unusual for children to work more than 80 hours a week. Check for keying or interviewer errors in variables CL4, CL6 and CL9. If no such errors were made, leave the data unchanged.

**0301      W   M   Total number of children aged 2-14 years is incorrect**

The number of children aged 2-14 years in Table 1 of the Child Discipline module should equal the number of children aged 2-14 years in the Household Listing. If this is not true, check CD7 for keying errors. If no such errors were made, leave the data unchanged. (You should only correct keying errors for this question because one of the goals is to see whether the child selection system can be easily implemented.)

**0302      W   M   Rank of child (CD9=%02d) greater than number of children 2-14 (CD7=%02d)**

The rank of the selected child in Table 1 (CD9) cannot be larger than the number of children in Table 1 (CD7). Check CD7 and CD9 for keying errors. If no such errors were made, leave the data unchanged. (You should only correct keying errors for this question because one of the goals is to see whether the child selection system can be easily implemented.)

**0303      W   M   If only one child aged 2-14 years, his/her rank must equal 1**

If there is only one child in Table 1 (CD7 is equal to one), the rank of the selected child (CD9) must be equal to one. Check CD7 and CD9 for keying errors. If no such errors were made, leave the data unchanged. (You should only correct keying errors for this question because one of the goals is to see whether the child selection system can be easily implemented.)

**0304      D   E   Line number (CD11=%02d) greater than number of household members (HH11=%02d)**

CD11 must give the line number of a household member aged 2-14 years. This variable must be corrected because it will be used during the analysis of the data. Check CD11 for keying errors. If no such errors were made, use the name of the child (written on the questionnaire above CD11) and the information in Tables 1 and 2 to determine the correct line number for the child. If you cannot identify the correct line number for the child, set CD11 equal to 97 (inconsistent). DO NOT correct CD7 and CD9.

**0305      D   E   This household member (age=%02d) is not eligible**

CD11 must give the line number of a household member aged 2-14. This variable must be corrected because it will be used during the analysis of the data. Check CD11 for keying errors. If no such errors were made, use the name of the child (written on the questionnaire above CD11) and the information in Tables 1 and 2 to determine the correct line number for the child. If you cannot identify the correct line number for the child, set CD11 equal to 97 (inconsistent). DO NOT correct CD7 and CD9.



**0401      W   M   Number of sisters who reached 15 must be less than or equal to total number of sisters**

A household member's number of sisters (MM5) must be greater than or equal to her/his number of sisters who reached age 15 (MM6). Check for keying errors in variables MM5 and MM6 and correct any that are found. If no keying errors were made, try to use the values of MM7, MM8 and MM9 to correct the inconsistency. If you cannot resolve the inconsistency, leave the data unchanged.

**0402      W   M   Number of surviving 15+ sisters must be less than or equal to total number of sisters**

A household member's number of sisters (MM5) must be greater than or equal to her/his number of sisters who reached age 15 and are still alive (MM7). Check for keying errors in variables MM5 and MM7 and correct any that are found. If no keying errors were made, try to use the values of MM6, MM8 and MM9 to correct the inconsistency. If you cannot resolve the inconsistency, leave the data unchanged.

**0403      W   M   Number of deceased 15+ sisters must be less than or equal to total number of sisters**

A household member's number of sisters (MM5) must be greater than or equal to her/his number of sisters who reached age 15 and are now dead (MM8). Check for keying errors in variables MM5 and MM8 and correct any that are found. If no keying errors were made, try to use the values of MM6, MM7 and MM9 to correct the inconsistency. If you cannot resolve the inconsistency, leave the data unchanged.

**0404      W   M   Total number of 15+ sisters must equal sum of 15+ sisters who are alive or dead**

A household member's number of sisters (MM6) who reached age 15 must equal the sum of the number of sisters who reached 15 and are still alive (MM7) and the number of sisters who reached 15 and are now dead (MM8). Check for keying errors in variables MM6, MM7 and MM8 and correct any that are found. If any two of the variables have valid values and the third is invalid (for example, 'Don't know'), correct the invalid value using the fact that MM6 must equal MM7 plus MM8. If no keying errors were made and the previous method does not solve the problem, try to use the values of MM5 and MM9 to correct the inconsistency. If you cannot resolve the inconsistency, leave the data unchanged.

**0405      W   M   Number of 15+ sisters who died during pregnancy/delivery must be <= total number of sisters**

A household member's number of sisters (MM5) must be greater than or equal to her/his number of sisters who reached age 15 and died during pregnancy or delivery (MM9). Check for keying errors in variables MM5 and MM9 and correct any that are found. If no keying errors were made, try to use the values of MM6, MM7 and MM8 to correct the inconsistency. If you cannot resolve the inconsistency, leave the data unchanged.

**0406      W   M   Number of 15+ sisters who died during pregnancy/delivery must be <= total number of 15+ sisters**

A household member's number of sisters who reached age 15 (MM6) must be greater than or equal to her/his number of sisters who reached age 15 and died during pregnancy or delivery (MM9). Check for

keying errors in variables MM6 and MM9 and correct any that are found. If no keying errors were made, try to use the values of MM5, MM7 and MM8 to correct the inconsistency. If you cannot resolve the inconsistency, leave the data unchanged.

**0407      W   M   Number of 15+ sisters who died during pregnancy/delivery must be <= total number of deceased 15+ sisters**

A household member's number of sisters who reached age 15 and are now dead (MM8) must be greater than or equal to her/his number of sisters who reached age 15 and died during pregnancy or delivery (MM9). Check for keying errors in variables MM8 and MM9 and correct any that are found. If no keying errors were made, try to use the values of MM5, MM6 and MM7 to correct the inconsistency. If you cannot resolve the inconsistency, leave the data unchanged.

**0408      W   M   Line number of proxy (MM4=%02d) greater than number of household members (HH11=%02d)**

The proxy respondent should be an adult household member (age 15 or over). Check for keying errors in variables MM4 and HH11 and correct any that are found. If no such errors were made and you cannot resolve the inconsistency, leave the data unchanged.

**0409      W   M   Proxy respondent is not an adult (HL5=%02d)**

The proxy respondent should be an adult household member (age 15 or over). Check for keying errors in variables MM4, HL5 and HH11 and correct any that are found. If no such errors were made and you cannot resolve the inconsistency, leave the data unchanged.

## **QUESTIONNAIRE FOR INDIVIDUAL WOMEN**

**1000      D      Line number of woman incorrect; next questionnaire is %s on line %02d**

After the Household Questionnaire has been entered, the data-entry program requires the data-entry operator to enter the individual questionnaires. In particular, it requires that any women's questionnaire be entered in ascending order of line number, followed by any under-five questionnaires, also in ascending order of line number. If the data-entry operator enters a line number in variable WM4 that is not the line number of the next eligible woman, the error message above will be displayed. Check for data-entry errors in WM4 and correct any that you find. If there are no such errors, the physical questionnaires must be incorrectly sorted. Sort them correctly and find the correct questionnaire to enter.

If no questionnaire exists for the woman that the data-entry program is expecting, check the Household Listing to make sure that this individual is eligible for a women's interview. If the woman is not in fact eligible, you must go back and correct the Household Listing. If the woman is eligible, you must create a questionnaire for her. On a blank women's questionnaire, fill out the identification variables using the information on the Household Questionnaire, circle response code '6' and write 'not interviewed' in the space provided.

**1001      W   E   Woman either too young or too old to be interviewed**

Women must be aged 15 to 49 to be eligible for the women's questionnaire. Depending on the date of interview, this translates into a minimum and maximum possible date of birth. Occasionally a woman's date of birth is outside of this range. Check for data-entry errors and correct any that you find. During data entry, do nothing else. During editing, you must resolve this inconsistency. If the woman's month of birth is the same as the month of interview, her year of birth is 50 years before the year of interview and her age is recorded as 49, then leave the data unchanged (the presumption is that the woman's day of birth is greater than the day of interview). If the woman's age (WM9) is equal to 49 and only her year of birth is given, set her year of birth (WM8Y) equal to 9997.

For all other cases, if the woman was born outside of the expected range then she should be dropped from the sample due to ineligibility. Make a large 'X' on the front cover of the woman's questionnaire (using a green pen) and write 'ineligible' in a prominent place. Correct the woman's age and eligibility in the household schedule and the summary variables HH12, HH13, TOHL6. You must also change the cluster control sheet and the cluster tracking form to reflect the change in the number of eligible women.

**1002      W   M   Age of woman (WM9=%02d) and age in household different (HL5=%02d)**

The age of the woman in variable WM9 and her age in the household schedule (HL5) should generally be the same. Check for data-entry errors in WM9 and HL5 and correct any that you find. If there are no data-entry errors, leave the data unchanged.

If there are two or more eligible women in the household, each of the individual questionnaires should be checked to ensure that the correct questionnaire is being entered. Occasionally the wrong line numbers are written on the cover pages of the questionnaires. If this is the case, the line numbers should be corrected, the questionnaires reordered and then entered according to the correct order.

**1003      W   E   Age of woman and her date of birth inconsistent**

A woman's date of birth and her age should be consistent. Check WM6, WM8 and WM9 for data-entry errors and correct any that you find. During data entry, do nothing else. During editing, you must resolve this inconsistency. If there are no data-entry errors, check other dates on the woman's questionnaire (for example, date of first birth CM2, date of marriage MA6) and see if the age, date of birth or date of interview is clearly inconsistent. If this method does not resolve the inconsistency, you must resolve it using one of the methods listed below. The methods are listed in order of precedence, meaning that you should try them in the order in which they are listed, stopping when the inconsistency has been resolved.

If the month of birth and the month of interview are the same and the woman's reported age (WM9) is one year smaller than her calculated age (that is, her age according to WM8), leave the data unchanged. If both month and year of birth are valid (and the situation above does not apply), correct the woman's reported age to equal her calculated age. If only year of birth is valid, set the woman's year of birth equal to 9997.

**1011 W M School attendance different in household (ED2=%02d) and women's questionnaires (WM10=%02d)**

The school attendance of a woman in her individual questionnaire (WM10) and the Household Questionnaire (ED2) should generally be the same. Check for data-entry errors in WM10 and ED2 and correct any that you find. If there are no data-entry errors, leave the data unchanged.

**1012 W M Woman's level of education different in household (ED3A=%02d) and women's questionnaires (WM11=%02d)**

The level of education of a woman in her questionnaire (WM11) and the Household Questionnaire (ED3A) should generally be the same. Check for data-entry errors in WM11 and ED3A and correct any that you find. If there are no data-entry errors, leave the data unchanged.

**1013 W M Woman's grade of education different in household (ED3B=%02d) and women's questionnaires (WM12=%02d)**

The level of education of a woman in her questionnaire (WM12) and the Household Questionnaire (ED3B) should generally be the same. Check for data-entry errors in WM12 and ED3B and correct any that you find. If there are no data-entry errors, leave the data unchanged.

**1014 W E Level and grade of education inconsistent**

The highest grade completed at a particular level must be less than or equal to the maximum grade at that level. Check that the level and grade have been correctly entered; if not, enter them correctly. During data entry, do nothing else. During editing, this inconsistency must be resolved. If the data have been correctly entered, check if an error may have occurred in the form in which the answer was recorded. For example, the interviewer may have recorded the total number of years of schooling rather than the number of years at the reported level. For example, if the reported level of education is secondary, the response to the highest grade should range between 01 through 06. If the response recorded for the grade is 08, this is probably a mistake due to treating secondary education as grades 7 through 12. In this case the grade should be changed to 02.

If the inconsistency cannot be resolved by any of the methods above, change the number of years of schooling to 97 (inconsistent). (These editing instructions should be adapted to fit the educational system in your country).

**1101 W E Date of birth of first child before age %1d**

Each survey has a country-specific minimum age at first birth (default value: 12 years old), and no one should give birth at a younger age. Check for data-entry errors in CM2A, WM6, WM8 and WM9 and correct any that you find. During data entry, do nothing else. During editing you must resolve this inconsistency. Try first to use other available information about this woman and child (for example, the child's age in the Household Listing, if present, the child's date of birth if he/she has an under-five questionnaire, etc.) to resolve the inconsistency, but only rely upon this evidence if it is irrefutable. If the actions above don't resolve the inconsistency and the year of birth (CM2AY) is inconsistent (for example, the year of birth is less than 12 years after the women's year of birth), set it equal to 9997. If the month of

birth (CM2AM) is inconsistent (for example, the year of interview and birth are 12 years apart), set it equal to 97.

#### **1102      W   E   Date of birth of first child after date of interview**

No child should be born after the date of interview. Check for data-entry errors in CM2A and WM6 and correct any that you find. During data entry, do nothing else. During editing you must resolve this inconsistency. Try first to use other available information about this woman and child (for example, the child's age in the Household Listing, if present, the child's date of birth if he/she has an under-five questionnaire, etc.) to resolve the inconsistency, but only rely upon this evidence if it is irrefutable.

If the actions above don't resolve the inconsistency and the year of birth (CM2AY) is inconsistent (that is, the year of birth is larger than the year of interview), set it equal to 9997. If the month of birth (CM2AM) is inconsistent (that is, the year of interview and birth are the same and the month of birth is larger than the month of interview), set it equal to 97. Finally, if the day of birth (CM2AD) is inconsistent (that is, the month and years of birth and interview are the same and day of birth is larger than the day of interview), set it equal to 97.

#### **1103      W   E   Had first birth when less than %02d years old**

This message is similar to message 1101 but is only performed when the year of the woman's first birth is missing or unknown. The editing program compares the woman's current age to her age at first birth and generates this message if the difference is less than the survey's minimum age at first birth (default value: 12 years old). Check for data-entry errors in CM2B and WM9 and correct any that you find. During data entry, do nothing else. During editing you must resolve this inconsistency. If other available information about this woman and child (for example, the child's age in the Household Listing, if present, the child's date of birth if he/she has an under-five questionnaire, etc.) does not easily resolve the inconsistency, set CM2B equal to 97 (inconsistent).

#### **1110      D   E   Number of boys and girls must be greater than zero**

If variable CM3 equals 1, then the sum of variables CM4A and CM4B must not equal zero. If variable CM5 equals 1, then the sum of variables CM6A and CM6B must not equal zero. If variable CM7 equals 1, then the sum of variables CM8A and CM8B must not equal zero. Check for data-entry errors and correct any that you find. If there are no data-entry errors, and the sum of the variables does equal zero, change the response to the preceding question to 2.

#### **1111      D   E   Number of children ever born incorrect**

A woman's total number of live births (CM9) must be equal to the sum of her children at home (CM4), her children elsewhere (CM6) and her number of children who have died (CM8). Check for data-entry errors and correct any that you find. If no data-entry errors were made, change CM9 to equal the sum of CM4, CM6 and CM8.

#### **1121      W   E   Date of birth of last child before age %1d**

Each survey has a country-specific minimum age at first birth (default value: 12 years old), and no one should give birth at a younger age. Check for data-entry errors in CM11, WM6, WM8 and WM9 and

correct any that you find. During data entry, do nothing else. During editing you must resolve this inconsistency. Try first to use other available information about this woman and child (for example, the child's age in the Household Listing, if present, the child's date of birth if he/she has an under-five questionnaire, etc.) to resolve the inconsistency, but only rely upon this evidence if it is irrefutable. If the actions above don't resolve the inconsistency and the year of birth (CM11Y) is inconsistent (for example, the year of birth is less than 12 years after the women's year of birth), set it equal to 9997. If the month of birth (CM11M) is inconsistent (for example, the year of interview and birth are 12 years apart), set it equal to 97.

#### **1122      W   E   Date of birth of last child after date of interview**

No child should be born after the date of interview. Check for data-entry errors in CM11 and WM6 and correct any that you find. During data entry, do nothing else. During editing you must resolve this inconsistency. Try first to use other available information about this woman and child (for example, the child's age in the Household Listing, if present, the child's date of birth if he/she has an under-five questionnaire, etc.) to resolve the inconsistency, but only rely upon this evidence if it is irrefutable.

If the actions above don't resolve the inconsistency and the year of birth (CM11Y) is inconsistent (that is, the year of birth is larger than the year of interview), set it equal to 9997. If the month of birth (CM11M) is inconsistent (that is, the year of interview and birth are the same and the month of birth is larger than the month of interview), set it equal to 97. Finally, if the day of birth (CM11D) is inconsistent (that is, the month and years of birth and interview are the same and day of birth is larger than the day of interview), set it equal to 97.

#### **1123      W   E   Date of birth of only child must be the same in CM2 and CM11**

If a woman has given birth only one time, then the dates of birth of her first (CM2A) and last child (CM11) must be the same. Check for data-entry errors in CM2A, CM9 and CM11 and correct any that you find. During data entry, do nothing else. During editing you must resolve this inconsistency. Check for any information that shows that the woman has had more than one live birth (for example, does she have more than one child in the Household Listing?). If you find irrefutable evidence that the woman has had more than one live birth, correct variables CM3 through CM9. Otherwise, set the date of the woman's first birth (CM2A) equal to the date of her last birth (CM11).

#### **1124      W   E   Date of birth of last child before date of birth of first child**

The date of birth of a woman's first child (CM2A) must be before the date of birth of her last child (CM11). Check for data-entry errors in CM2A and CM11 and correct any that you find. During data entry, do nothing else. During editing you must resolve this inconsistency. Check for any information (for example, vaccination dates if either child has an individual questionnaire) that will allow you to correct either CM2A or CM11. Check also if the interviewer reversed the dates and wrote the date of last birth in CM2A and the date of first birth in CM11. If this is the case, reverse the dates on the questionnaire (that is, set CM2A equal to CM11's original value and CM11 equal to CM2A's original value). If you are unable to correct either CM2A or CM11 with certainty, set CM2AD equal to 97 (inconsistent), set CM2AM equal to 97 and set CM2AY equal to 9997.

**1131 D E Date of birth of last child was in last 2 years**

If the woman has had a birth in the last 2 years, then CM12 must equal 'Y'. Check CM11 and WM6 (date of interview) for data-entry errors and correct any that you find. If no data-entry errors were made, check any other sources of information about the date of the woman's most recent birth (including any under-five questionnaires). If you find irrefutable evidence that the child's date of birth is incorrect, change CM11; otherwise, you must assume that the child's date of birth is correct and change CM12's value to 'Y'.

**1132 D E No birth in last 2 years**

If the woman has not had a birth in the last 2 years, then CM12 must equal 'N'. Check CM11 and WM6 (date of interview) for data-entry errors and correct any that you find. If no data-entry errors were made, check any other sources of information about the date of the woman's most recent birth (including any under-five questionnaires). If you find irrefutable evidence that the child's date of birth is incorrect, change CM11; otherwise, you must assume that the child's date of birth is correct and change CM12's value to 'N'.

**1201 W M Last tetanus dose before last pregnancy came when woman was less than %02d**

The woman's last tetanus dose before her last pregnancy should not be before she was born and generally should not be before the country-specific minimum age at first birth (though the latter is possible if the woman received the dose for a reason other than pregnancy). Check for data-entry errors in WM8, WM9 and TT7 and correct any that you find. During data entry, do nothing else.

During editing, if the dose was received before the minimum age at first birth but after the woman's date of birth, do nothing else. However, if the dose was received before the woman was born, set TT7M equal to 97 and TT7Y equal to 9997.

**1301 D E Special answers inconsistent**

The source of the weight information can be special (that is, equal to 9) if and only if the child's weight is equal to 'Don't know' (9.998) or is 'Missing' (9.999). Check for data-entry errors. If no such error was made and the weight is equal to 9.998 or 9.999, set the source equal to 9. If the source is special and the weight is a valid value, set the source equal to 7 (inconsistent).

**1401 W M According to DOB (%02d/%04d) and DOM (%02d/%04d), woman less than age %02d when married**

No woman should be married before she is born and generally should not be married before the country-specific minimum age at first marriage (though the latter is possible). Check for data-entry errors in WM6, WM8, WM9 and MA6 and correct any that you find. During data entry, do nothing else.

During editing, if the marriage was before the minimum age at first marriage but after the woman's date of birth, do nothing else. However, if the marriage was before the woman was born, set MA6M equal to 97 and MA6Y equal to 9997.

**1403      W   E   Age at first marriage (%02d) and date of first marriage (%02d/%04d) inconsistent (DOB=%02d/%04d)**

If a woman has a valid year of marriage and an age at first marriage, these two pieces of information must be consistent with one another. Check MA6, MA8, WM6 and WM8 for data-entry errors and correct any that you find. During data entry, do nothing else. During editing, if no data-entry errors are present, set MA6M equal to 97 (inconsistent) and MA6Y equal to 9997.

**1404      W   E   Age at first marriage (%02d) greater than current age (%02d)**

A woman's age at first marriage (MA8) cannot be greater than her current age (WM9). Check MA8 and WM9 for data-entry errors and correct any that you find. During data entry, do nothing else. During editing, if no data-entry errors were made, set MA8 equal to 97.

**1601      W   E   Mother (age=%02d) less than %02d years older than daughter (age at circumcision=%02d)**

The difference between the woman's age and her daughter's age at circumcision should not be less than minimum age at first birth. Check FG4 for data-entry errors and correct any that you find. During data entry do nothing else. During editing, if no data-entry errors were made, change FG14's value to 97 (inconsistent).

**1602      W   E   Number of circumcised daughters (FG9=%02d) greater than number of daughters (CM9=%02d)**

A woman cannot have more circumcised daughters than she has daughters. Check CM9 and FG9 for data-entry errors and correct any that you find. During data entry, do nothing else. During editing, if no data-entry errors were made, change FG9's value to 97 (inconsistent).

**1801      W   E   Woman's age at first sex (SB1=%02d) greater than her current age (WM9=%02d)**

A woman's age at first sex (SB1) cannot be greater than her current age (WM9). Check SB1 and WM9 for data-entry errors and correct any that you find. During data entry, do nothing else. During editing, if no data-entry errors were made, set SB1 equal to 97.

**1802      W   E   Maximum age at last sex (WM9-SB2N=%02d) less than age at first sex (SB1=%02d); (SB2U=4)**

The woman's maximum age at last sex (her current age minus her years since last sex when SB2U = 4) cannot be less than her age at first sex. Check SB1 and SB2 for data-entry errors and correct any that you find. If no such errors were made, set SB2U equal to 9 (special) and SB2N equal to 97 (inconsistent).



## QUESTIONNAIRE FOR CHILDREN UNDER FIVE

### **2000      D      Line number of child incorrect; next questionnaire is %s on line %02d**

After the Household Questionnaire has been entered, the data-entry program requires the data-entry operator to enter the individual questionnaires. In particular, it requires that any women's questionnaire be entered in ascending order of line number, followed by any under-five questionnaires, also in ascending order of line number. If the data-entry operator enters a line number in variable UF4 that is not the line number of the next eligible child, the error message above will be displayed. Check for data-entry errors in UF4 and correct any that you find. If there are no such errors, the physical questionnaires must be incorrectly sorted. Sort them correctly and find the correct questionnaire to enter.

If no questionnaire exists for the child that the data-entry program is expecting, check the Household Listing to make sure that this child is eligible for an under-five interview. If the child is not in fact eligible, you must go back and correct the Household Listing. If the child is eligible, you must create a questionnaire for him/her. On a blank under-five questionnaire, fill out the identification variables using the information on the Household Questionnaire, circle response code '6' and write 'not interviewed' in the space provided.

### **2001      W E    Child either too young or too old to be interviewed**

Children are eligible for the under-five questionnaire if they are aged 0 to 4. Depending on the date of interview, this translates into a minimum and maximum possible date of birth. Occasionally a child's date of birth is outside of this range. If the child's day of birth is invalid, the child's month of birth is the same as the month of interview, the child's year of birth is 5 years before the date of interview, and the age of the child is recorded as four, then leave the data unchanged (the presumption is that the child's day of birth is greater than the day of interview). If the child's age (UM11) is equal to four and only her/his year of birth is given, set her/his year of birth (UF10Y) equal to 9997.

For all other cases, if the child was born outside of the expected range, then the child should be dropped from the sample due to ineligibility. Make a large 'X' on the front cover of the under-five questionnaire (using a green pen) and write 'ineligible' in a prominent place. Correct the child's age and eligibility in the household schedule and the summary variables HH14, HH15, TOHL8. You must also change the cluster control sheet and the cluster tracking form to reflect the change in the number of under-fives.

### **2002      W M    Age of child (UF11=%02d) and age in household different (HL5=%02d)**

The age of the child in variable UF11 and her/his age in the household schedule (HL5) should generally be the same. Check for data-entry errors in UF11 and HL5 and correct any that you find. If no data-entry errors were made, leave the data unchanged.

If there are two or more under-fives in the household, each of the under-five questionnaires should be checked to ensure that the correct questionnaire is being entered. Occasionally the wrong line numbers are written on the cover pages of the questionnaires. If this is the case, the line numbers should be corrected and the questionnaires reordered and then entered in the correct order.

**2003      W   E   Age of child and date of birth inconsistent**

A child's date of birth and her/his age should be consistent. Check UF8, UF10 and UF11 for data-entry errors and correct any that you find. If there are no data-entry errors, check other dates on the child's questionnaire (for example, the dates on which BCG and Polio 0 were given) and see if age, date of birth or date of interview is clearly inconsistent. If this method does not resolve the inconsistency, you must resolve it using one of the methods listed below. The methods are listed in order of precedence, meaning that you should try them in the order in which they are listed, stopping when the inconsistency has been resolved.

If the child's day, month and year of birth are all provided, set the child's reported age equal to the calculated age. If the day of birth is invalid and the month of birth and month of interview are the same and the child's reported age (UF11) is one year smaller than her calculated age, leave the data unchanged. If month and year of birth are provided (and the situation above does not apply), change the reported age to equal the calculated age. If only year of birth is provided, set the child's year of birth equal to 9997.

**2004      W   E   Line number of caretaker (UF6=%02d) must be the same as in the household (HL8=%02d)**

The line number of the child's caretaker must be the same in the Questionnaire for Children Under Five (UF6) and the Household Questionnaire (HL8). Check for data-entry errors and correct any that are found. If there are no data-entry errors, determine which line number is correct by reviewing the Household Listing, particularly variables HL3-HL5, HL10 and HL12. Correct whichever line number is incorrect.

**2301      W   E   Vitamin A received %02d months ago but child is only %02d months old**

A child cannot have received vitamin A before he or she was born. Check for data-entry errors in VA2 and correct any that you find. During data entry, do nothing else. During editing, if no such errors are found, set VA2 equal to 97 (inconsistent).

**2701      W   E   Date of vaccination invalid**

The day, month and year of the vaccination are inconsistent with each other (for example, 31<sup>st</sup> of February) Check for data-entry errors and correct any that you find. During data entry, do nothing else. During editing, use the instructions in 2702 to try to determine the source of the inconsistency and correct it. If you cannot uncover the source of the inconsistency, set the day of the vaccination equal to 97 (inconsistent).

**2702      W   E   Date of vaccination after date of interview**

The date of the vaccination is after the date of interview. Check the date of the vaccination for data-entry errors and correct any that you find. During data entry, do nothing else. During editing, if there are no data-entry errors, follow the instructions below.

Check that the date of vaccination was correctly recorded. Look for recording errors on the questionnaire, such as two vaccinations being recorded on the same day and month, but with a different year. For

example, if Polio 2 is recorded as 12 January 2005 and DPT 2 as 12 January 2006, then the year of one of these is probably incorrect. If there is an obvious error of this type, then correct the vaccination date.

Also check to see that the day and month of immunization have not been reversed. For example, an immunization given on 9 May 2004 should be coded in the *ddmmyy* form as 09052004; however, the day and month may have been reversed, and the date recorded as 05092004. If reversing the month and day codes will allow the date to be consistent with the date of interview (and will not cause an inconsistency between dates of immunization given in a series), reverse the two codes.

In some countries, a date for a return visit for a vaccination may have been recorded on the vaccination card rather than the date of vaccination itself. If this is believed to be the case, then the date of vaccination should be deleted.

In efforts to resolve inconsistencies in the dates of immunizations for a child, attention should be paid to dates of immunization recorded for other children in the household, since children of different ages may have been immunized on the same date (for example, during a national campaign against polio).

If none of the methods above reveals a clear correction and the year of vaccination and interview are the same, set the month of vaccination equal to 97. If the year of vaccination is after the year of interview, set the year of vaccination equal to 9997.

### **2703      W   E   Date of vaccination is before minimum date of birth of child**

No vaccination can be given before a child is born. Check the date of vaccination and date of birth for data-entry errors and correct any that you find. During data entry, do nothing else. During editing, if no data-entry errors are found, look for recording errors on the questionnaire as for message 2702. If this does not resolve the inconsistency and the year of vaccination is the same as the year of birth, set the month of vaccination equal to 97. If the year of vaccination is before the year of birth, set the year of vaccination equal to 9997.

### **2704      E   Date of vaccination is earlier than next vaccine in series**

Certain vaccinations (for example, polio) are actually a series of several vaccinations. The dates of the vaccinations in the series must be consistent. For example, the date of a child's third polio vaccination cannot be before the date of her/his second polio vaccination. Check the dates of the vaccinations for data-entry errors and correct any that you find.

If there are no data-entry errors, look for recording errors on the questionnaire as for message 2702. If this does not resolve the inconsistency, set the day, month and year of the most inconsistent vaccination equal to 97, 97 and 9997, respectively. In the example below, it is clear that the date of the Polio 3 vaccination is inconsistent. In this case, it is possible to correct the year from 2001 to 2002; had this not been possible, the day, month and year would have been set equal to 97, 97 and 9997, respectively.

Polio 1	Polio 2	Polio 3	DPT 1	DPT 2	DPT 3
28012002	27032002	01052001	27032002	24042002	04062002

**2705 M Date of vaccinations are different**

In most countries, polio and DPT vaccinations are given together and the dates of the vaccinations are the same. Check for data-entry errors in the dates of the vaccinations and correct any that you find. If no data-entry errors were made, look for recording errors on the questionnaire as for message 2702. If the vaccinations appear to have been given on different dates, the data should be left unchanged.

Corrections should only be made when there is overwhelming evidence that a mistake has been made. In the table below, for example, it is clear that the year of the DPT2 vaccination should be changed to 2003.

Polio 1	Polio 2	Polio 3	DPT 1	DPT 2	DPT 3
16062003	08082003	13092003	16062003	08082004	13092003

**2706 M Vaccination card, but no vaccinations received**

The child is reported as having a vaccination card, however no date is recorded for any vaccination on the card. Check for data-entry errors and correct any that you find. If no data-entry errors were made, leave the data unchanged.

**2707 M Receipt of other vaccinations inconsistent with vaccinations recorded**

The caretaker of a child who has a vaccination card is asked if that child received any vaccinations that are not recorded on the vaccination card. Any such vaccinations are recorded using the code '66' for the day of the vaccination. If the caretaker says 'yes' (IM9 equals 1), the day of one of the vaccinations should equal 66. If the caretaker says 'no' (IM9 does not equal 1), none of the vaccinations in the table should have a day equal to 66. Check for data-entry errors and correct any that you find. If no data-entry errors are found, leave the data unchanged.

**2801 W M Weight outside range expected**

Expected limits for children's height and weight are given in the next section. Check AN1 for data-entry errors and correct any that you find. If no data-entry errors were made, leave the data unchanged.

**2802 W M Height (length) outside range expected**

Expected limits for children's height and weight are given in the next section. Check AN2 for data-entry errors and correct any that you find. If no data-entry errors were made, leave the data unchanged.

**2803 W M Children under 2 are usually measured lying down, 2+ standing up**

Children under age two are usually measured lying down; children 2 years or older are usually measured standing up. Check AN2 for data-entry errors and correct any that you find. If no data-entry errors were made, leave the data unchanged.

**2804      W   M   Height and weight are outside range expected**

Expected limits for children's height and weight are given in the next section. Check AN1 and AN2 for data-entry errors and correct any that you find. If no data-entry errors were made, leave the data unchanged.

**2805      W   E   Result of measurement inconsistent with measurement recorded**

The result code can be equal to 1 (measured) if and only if there is a weight and height for the child. If either weight or height was not measured, the result cannot be equal to 1. Check AN1, AN2 and AN4 for data-entry errors and correct any that you find. During data entry, do nothing else. During editing, if no data-entry errors were found and either weight or height is not valid, change AN4's value to 7 (inconsistent) and write 'inconsistent' in the space provided on the questionnaire. If both weight and height are valid and AN4 does not equal 1, change its value to 1.

**GENERAL ERROR MESSAGES****9992      D   E      Unit and number inconsistent; check questionnaire's coding instructions**

This error message is for two-part questions in which one part gives the units of the response and the other the number of the response. Check for keying errors and correct any that are found. If no keying errors are found, correct the number and units to be consistent with the instructions on the questionnaire. For example, question MN13 records how long after birth the child was put to the breast. If the response is longer than 23 hours, it must be recorded in days (MN13U equals 2); otherwise it is recorded in hours (MN13U equals 1). If MN13U equals 1 and MN13N equals 26, it means that the child was first put to the breast after 36 hours. Since this is more than 23 hours, the response should be recorded as 1 day (that is, MN13U equals 2 and MN13N equals 1).

**9993      W   M   Please check the value entered**

Certain variables (such as prices) are generally divisible by either 5 or 10. Check the variable for keying errors and correct any that are found. If no keying errors are found, leave the data unchanged.

**9995      D      Response 'No one' inconsistent with other answers**

The current variable is alphanumeric, and one of its responses is 'No one'. If this response is selected, then no other response is permitted. Check for keying errors and correct any that are found. If no keying errors are found, remove the code for 'No one' from the variable.

**9996      D      Response 'Don't know' inconsistent with other answers**

The current variable is alphanumeric, and one of its responses is 'Don't know'. If this response is selected then no other response is permitted. Check for keying errors and correct any that are found. If no keying errors are found, remove the code for 'Don't know' from the variable.

**9998 D Code given for alpha variable not acceptable**

The response to alphanumeric variables must contain only codes that are printed on the questionnaire and these codes must be entered in alphabetic order (and no one code can appear more than once). This error message is always the result of a keying error. Check the questionnaire and resolve the keying error.

**LIMITS FOR LENGTH AND WEIGHT OF CHILDREN**

The following table presents the minimum and maximum expected values for the length and weight of children. The ranges depend on the sex and age of the child. Lengths (height) are given in centimetres and weights are given in kilograms.

Age in months	LENGTH (centimetres)				WEIGHT (kilograms)			
	Males		Females		Males		Females	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
0-2	36.0	74.0	36.0	72.0	0.5	10.0	0.5	9.0
3-5	45.0	83.0	44.0	80.0	1.0	13.0	1.0	12.0
6-8	51.0	87.0	50.0	86.0	2.0	15.0	2.0	14.0
9-11	56.0	91.0	54.0	90.0	3.0	16.5	2.5	15.5
12-14	59.0	96.0	57.0	95.0	4.0	17.5	3.0	16.5
15-17	62.0	100.0	60.0	99.0	4.0	18.5	3.5	17.5
18-20	64.0	104.0	62.0	102.0	4.0	19.5	3.5	18.5
21-23	65.0	107.0	64.0	106.0	4.5	20.5	4.0	19.5
24-26	67.0	108.0	66.0	107.0	4.5	23.0	4.5	21.5
27-29	68.0	112.0	68.0	111.0	5.0	24.0	5.0	23.0
30-32	70.0	115.0	69.0	114.0	5.0	24.5	5.0	24.5
33-35	71.0	118.0	71.0	117.0	5.0	25.5	5.0	25.5
36-38	73.0	121.0	72.0	120.0	5.0	26.0	5.0	27.0
39-41	74.0	124.0	74.0	122.0	5.0	27.0	5.0	28.0
42-44	75.0	127.0	75.0	124.0	5.0	28.0	5.5	29.0
45-47	77.0	129.9	77.0	126.0	5.0	29.0	5.5	30.0
48-50	78.0	132.0	78.0	129.0	5.0	30.0	5.5	31.0
51-53	79.0	134.0	79.0	131.0	5.0	31.0	5.5	32.0
54-56	80.0	136.0	81.0	133.0	5.5	32.0	6.0	33.0
57-60	82.0	139.0	81.0	136.0	5.5	33.0	6.0	34.5

# APPENDIX SEVEN

## TABULATION GUIDELINES

### SURVEY COORDINATORS:

THE TABULATION GUIDELINES PROVIDED IN THIS APPENDIX ARE ACCOMPANIED BY SPSS PROGRAMMING AVAILABLE AT [www.childinfo.org](http://www.childinfo.org) THAT REPRODUCE THE TABLES WHEN RUN WITH MICS3 DATA SETS. SOME COUNTRIES MAY NEED TO DELETE THOSE TABLES ON TOPICS NOT INCLUDED IN THEIR QUESTIONNAIRES, CUSTOMIZE CATEGORIES BASED ON THOSE IN THEIR QUESTIONNAIRES, OR ADD NEW TABLES BASED ON ADDITIONAL TOPICS THEY MAY HAVE INCLUDED IN THEIR SURVEYS.

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## MICS3 INDICATORS BY TABLE NUMBER

TOPIC	INDICATOR NUMBER	INDICATOR	TABLE
<b>CHILD MORTALITY</b>			
Child mortality	1	Under-five mortality rate	CM.1
	2	Infant mortality rate	CM.1
<b>NUTRITION</b>			
Anthropometry	6	Underweight prevalence	NU.1
	7	Stunting prevalence	NU.1
	8	Wasting prevalence	NU.1
Breastfeeding	45	Timely initiation of breastfeeding	NU.2
	15	Exclusive breastfeeding rate	NU.3
	16	Continued breastfeeding rate	NU.3
	17	Timely complementary feeding rate	NU.3
	18	Frequency of complementary feeding	NU.4
	19	Adequately fed infants	NU.4
Salt iodization	41	Iodized salt consumption	NU.5
Vitamin A	42	Vitamin A supplementation (under-fives)	NU.6
	43	Vitamin A supplementation (post-partum mothers)	NU.7
Low birthweight	9	Low-birthweight infants	NU.8
	10	Infants weighed at birth	NU.8
<b>CHILD HEALTH</b>			
Immunization	25	Tuberculosis immunization coverage	CH.1
	26	Polio immunization coverage	CH.1
	27	DPT immunization coverage	CH.1
	28	Measles immunization coverage	CH.1
	31	Fully immunized children	CH.1
	29	Hepatitis B immunization coverage	CH.1c
	30	Yellow fever immunization coverage	CH.1c
Tetanus toxoid	32	Neonatal tetanus protection	CH.3
Care of illness	33	Use of oral rehydration therapy (ORT)	CH.4
	34	Home management of diarrhoea	CH.5
	35	Received ORT or increased fluids, and continued feeding	CH.5
	23	Care seeking for suspected pneumonia	CH.6
	22	Antibiotic treatment of suspected pneumonia	CH.7
Solid fuel use	24	Solid fuels	CH.8
Malaria	36	Household availability of insecticide-treated nets (ITNs)	CH.10
	37	Under-fives sleeping under insecticide-treated nets	CH.11
	38	Under-fives sleeping under mosquito nets	CH.11
	39	Antimalarial treatment (under-fives)	CH.12
	40	Intermittent preventive malaria treatment (pregnant women)	CH.13
Source and cost of supplies	96	Source of supplies	CH.14, CH.15, CH.16, CH.17
	97	Cost of supplies	CH.14, CH.15, CH.16, CH.17

TOPIC	INDICATOR NUMBER	INDICATOR	TABLE
<b>ENVIRONMENT</b>			
Water and Sanitation	11	Use of improved drinking water sources	EN.1
	13	Water treatment	EN.2
	12	Use of improved sanitation facilities	EN.5, EN.7
	14	Disposal of child's faeces	EN.6
Security of tenure	93	Security of tenure	EN.8
	94	Durability of housing	EN.9
	95	Slum household	EN.10
<b>REPRODUCTIVE HEALTH</b>			
Contraception and unmet need	21	Contraceptive prevalence	RH.1, RH.2
	98	Unmet need for family planning	RH.2
	99	Demand satisfied for family planning	RH.2
Maternal and newborn health	20	Antenatal care	RH.3
	44	Content of antenatal care	RH.4
	4	Skilled attendant at delivery	RH.5
	5	Institutional deliveries	RH.5
Maternal mortality	3	Maternal mortality ratio	RH.6
<b>CHILD DEVELOPMENT</b>			
Child development	46	Support for learning	CD.1
	47	Father's support for learning	CD.1
	48	Support for learning: children's books	CD.2
	49	Support for learning: non-children's books	CD.2
	50	Support for learning: materials for play	CD.2
	51	Non-adult care	CD.3
<b>EDUCATION</b>			
Education	52	Pre-school attendance	ED.1
	53	School readiness	ED.1
	54	Net intake rate in primary education	ED.2
	55	Net primary school attendance rate	ED.3
	56	Net secondary school attendance rate	ED.4
	57	Children reaching grade five	ED.5
	58	Transition rate to secondary school	ED.6
	59	Primary completion rate	ED.6
Literacy	61	Gender parity index	ED.7
	60	Adult literacy rate	ED.8
<b>CHILD PROTECTION</b>			
Birth registration	62	Birth registration	CP.1
Child labour	71	Child labour	CP.2, CP.2w
	72	Labourer students	CP.3
	73	Student labourers	CP.3
Child discipline	74	Child discipline	CP.4

TOPIC	INDICATOR NUMBER	INDICATOR	TABLE
Early marriage and polygyny	67	Marriage before age 15, before age 18	CP.5
	68	Young women aged 15-19 currently married/in union	CP.5
	70	Polygyny	CP.5
	69	Spousal age difference	CP.6
Female genital mutilation/cutting	66	Approval for FGM/C	CP.7
	63	Prevalence of female genital mutilation/cutting (FGM/C)	CP.7
	64	Prevalence of extreme form of FGM/C	CP.7
	65	FGM/C prevalence among daughters	CP.8
Domestic violence	100	Attitudes towards domestic violence	CP.9
Disability	101	Child disability	CP.10
HIV/AIDS, SEXUAL BEHAVIOUR, AND ORPHANED AND VULNERABLE CHILDREN			
HIV/AIDS knowledge and attitudes	82	Comprehensive knowledge about HIV prevention among young people	HA.3
	89	Knowledge of mother- to-child transmission of HIV	HA.4
	86	Attitude towards people with HIV/AIDS	HA.5
	87	Women who know where to be tested for HIV	HA.6
	88	Women who have been tested for HIV	HA.6
	90	Counselling coverage for the prevention of mother-to-child transmission of HIV	HA.7
	91	Testing coverage for the prevention of mother-to-child transmission of HIV	HA.7
Sexual behaviour	84	Age at first sex among young people	HA.8
	92	Age-mixing among sexual partners	HA.8
	83	Condom use with non-regular partners	HA.9
	85	Higher risk sex in the last year	HA.9
Support to orphaned and vulnerable children	75	Prevalence of orphans	HA.10, HA.11
	78	Children's living arrangements	HA.10
	76	Prevalence of vulnerable children	HA.11
	77	School attendance of orphans versus non-orphans	HA.12
	81	External support to children orphaned and made vulnerable by HIV/AIDS	HA.13
	79	Malnutrition among children orphaned and made vulnerable by HIV/AIDS	HA.14
	80	Early sex among children orphaned and made vulnerable by HIV/AIDS	HA.15

## TABLES RECOMMENDED FOR INCLUSION IN THE PRELIMINARY REPORT

The following tables are recommended for inclusion in the preliminary report. Countries may delete tables that are based on indicators not included in their survey.

	Table Number In Preliminary Report
Table HH.1: Results of household and individual interviews .....	1
Table CM.1: Child mortality .....	2
Table NU.1: Child malnourishment .....	3
Table NU.3: Breastfeeding .....	4
Table CH.1: Vaccinations in first year of life .....	5
Table CH.7: Antibiotic treatment of pneumonia .....	6
Table CH.8: Solid fuel use .....	7
Table CH.11: Children sleeping under bednets .....	8
Table CH.12: Treatment of children with anti-malarial drugs .....	9
Table EN.1: Use of improved water sources .....	10
Table EN.5: Use of sanitary means of excreta disposal .....	11
Table RH.1: Use of contraception .....	12
Table RH.5: Assistance during delivery .....	13
Table ED.3: Primary school net attendance ratio .....	14
Table ED.7: Education gender parity .....	15
Table CP.1: Birth registration .....	16
Table CP.5: Early marriage and polygyny .....	17
Table HA.3: Comprehensive knowledge of HIV/AIDS transmission .....	18
Table HA.9: Condom use at last high-risk sex .....	19
Table HA.12: School attendance of orphaned and vulnerable children .....	20

## GENERAL TABULATION NOTES

The model tabulations presented in this appendix are shown with suggested breakdowns by background characteristics such as region, urban-rural residence, ethnicity/language/religion groups and education. It is important to be aware, however, that the sample sizes of some surveys will not be large enough to produce reliable estimates for these breakdowns. For proportions or percentages, **the recommended minimum size of the denominator is 25 unweighted cases**. A percentage with an unweighted denominator less than 25 cases should not be shown in the table, while a percentage based on less than 50 cases should be shown in parentheses. If your sample requires the use of weights, then you will have to run the tabulations both weighted and unweighted in order to determine whether the unweighted denominators are below 50 cases.

Many of the tables related to children contain breakdowns by mother's education. In MICS3 surveys, some information on children whose mothers do not live in the household is collected from the primary caretaker. For these children, the caretaker's education should be used for breakdowns labeled 'mother's education'.

*Missing cases and 'don't know' responses are not shown in the tables, with the exception of those tables that include percentage distributions of responses to a question where 'Don't know' responses were explicitly allowed in the questionnaire; in such cases, 'Don't know' categories are shown. In general, however, missing cases and 'don't know' responses should be included in the actual tabulations as separate categories. If the total of 'missing' and 'don't know' is less than 5 percent, these two categories should be combined into a single category and denoted as 'Don't Know/Missing'. For cases when the combination of these two categories is more than 5 percent, then each should be shown on separate columns, and caution should be exercised in the interpretation of the results.*

The tables are presented in the same order that they will be included in the final reports of MICS3 surveys, and are grouped into the following topics:

Sample and Survey Characteristics.....	Tables HH.1 to HH.5
Child Mortality.....	Tables CM.1 to CM.2
Nutrition.....	Tables NU.1 to NU.8
Child Health.....	Tables CH.1 to CH.17
Environment.....	Tables EN.1 to EN.10
Reproductive Health .....	Tables RH.1 to RH.6
Child Development.....	Tables CD.1 to CD.3
Education .....	Tables ED.1 to ED.8
Child Protection .....	Tables CP.1 to CP.10
HIV-AIDS, Sexual Behaviour and Orphaned and Vulnerable Children .....	Tables HA.1 to HA.15

Each table has footnotes which indicate the MICS and MDG indicators included in the table, if any, as well as algorithms explaining how the indicators in the table are calculated, based on the question numbers in the model MICS3 questionnaires. Footnotes may also be included in the same table to provide simple definitions and descriptions of indicators included.

SPSS syntax files have been written for all of these tables. These files are posted at [www.childinfo.org](http://www.childinfo.org). For a better and more detailed understanding of the algorithms used for the calculation of the tables, these files should be consulted, together with explanations shown in the tables.

**Table HH.1: Results of household and individual interviews**

Number of households, women, and children under 5 by results of the household, women's and under-five's interviews, and household, women's and under-five's response rates, Country, Year

	Residence		Region			Total
	Urban	Rural	Region 1	Region 2	Region 3	
<b>Number of households</b>						
Sampled						
Occupied						
Interviewed						
Response rate						
<b>Number of women</b>						
Eligible						
Interviewed						
Response rate						
Overall response rate						
<b>Number of children under 5</b>						
Eligible						
Mother/Caretaker interviewed						
Response rate						
Overall response rate						

The denominator for the household response rate is the number of households found to be occupied during the field work (HH9 = 1, 2, 3, 6); the numerator is the number of households with complete household questionnaires (HH9 = 1). The denominator for the women's response rate is the number of eligible women enumerated in the household listing (i.e., women aged 15-49 years, HH12); the numerator is the number of women successfully interviewed (HH13). The denominator for the response rate for the questionnaire for children under 5 is the number of under five children identified in the household listing (HH14); the numerator is the number of complete questionnaires for children under five (HH15).

Overall response rates are calculated for individual interviews by multiplying the household response rate with the women's and under-five's response rates, respectively.

**Table HH.2: Household age distribution by sex**

Percent distribution of the household population by five-year age groups and dependency age groups, and number of children aged 0-17 years, by sex, Country, Year

	Males		Females		Total	
	Number	Percent	Number	Percent	Number	Percent
<b>Age</b>						
0-4						
5-9						
10-14						
15-19						
20-24						
25-29						
30-34						
35-39						
40-44						
45-49						
50-54						
55-59						
60-64						
65-69						
70+						
Missing/DK						
<b>Dependency age groups</b>						
< 15						
15-64						
65 +						
Missing/DK						
Children aged 0-17						
Adults 18+/Missing/ DK						
Total		100.0		100.0		100.0



**Table HH.3: Household composition**

Percent distribution of households by selected characteristics, Country, Year

		Number of households	
	Weighted percent	Weighted	Unweighted
<b>Sex of household head</b>			
Male			
Female			
<b>Region</b>			
Region 1			
Region 2			
Region 3			
<b>Residence</b>			
Urban			
Rural			
<b>Number of household members</b>			
1			
2-3			
4-5			
6-7			
8-9			
10+			
<b>Ethnicity/Language/Religion</b>			
Group 1			
Group 2			
Group 3			
Total	100.0		
At least one child aged < 18 years			
At least one child aged < 5 years			
At least one woman aged 15-49 years			

**Table HH.4: Women's background characteristics**

Percent distribution of women aged 15-49 years by background characteristics, Country, Year

	Weighted percent	Number of women	
		Weighted	Unweighted
<b>Region</b>			
Region 1			
Region 2			
Region 3			
<b>Residence</b>			
Urban			
Rural			
<b>Age</b>			
15-19			
20-24			
25-29			
30-34			
35-39			
40-44			
45-49			
<b>Marital/Union status</b>			
Currently married/in union			
Formerly married/in union			
Never married/in union			
<b>Motherhood status</b>			
Ever gave birth			
Never gave birth			
<b>Education</b>			
None			
Primary			
Secondary +			
<b>Wealth index quintiles</b>			
Poorest			
Second			
Middle			
Fourth			
Richest			
<b>Ethnicity/Language/Religion</b>			
Group 1			
Group 2			
Group 3			
Total	100.0		

**Table HH.5: Children's background characteristics**

Percent distribution of children under five years of age by background characteristics, Country, Year

	Weighted percent	Number of under-5 children	
		Weighted	Unweighted
<b>Sex</b>			
Male			
Female			
<b>Region</b>			
Region 1			
Region 2			
Region 3			
<b>Residence</b>			
Urban			
Rural			
<b>Age</b>			
< 6 months			
6-11 months			
12-23 months			
24-35 months			
36-47 months			
48-59 months			
<b>Mother's education</b>			
None			
Primary			
Secondary +			
<b>Wealth index quintiles</b>			
Poorest			
Second			
Middle			
Fourth			
Richest			
<b>Ethnicity/Language/Religion</b>			
Group 1			
Group 2			
Group 3			
Total	100.0		

**Table CM.1: Child mortality**

Infant and under-five mortality rates, Country, Year

	Infant mortality rate*	Under-five mortality rate**
<b>Sex</b>		
Male		
Female		
<b>Region</b>		
Region 1		
Region 2		
Region 3		
<b>Residence</b>		
Urban		
Rural		
<b>Women's education</b>		
None		
Primary		
Secondary +		
<b>Wealth index quintiles</b>		
Poorest		
Second		
Middle		
Fourth		
Richest		
<b>Ethnicity/Language/Religion</b>		
Group 1		
Group 2		
Group 3		
Total		

\* MICS indicator 2; MDG indicator 14

\*\* MICS indicator 1; MDG indicator 13

Note: Many surveys will not have sample sizes that will support regional breakdowns.

The infant and under-five mortality rates are obtained via a calculation which uses as input information in Table CM2: numbers of women, children ever born, and proportion dead, by age of women. Numbers for this table are obtained from the Child Mortality Module.

**Table CM.2: Children ever born and proportion dead**

Mean number of children ever born, children surviving and proportion dead by age of women, Country, Year

	Mean number of children ever born	Mean number of children surviving	Proportion dead	Number of women
<b>Age</b>				
15-19				
20-24				
25-29				
30-34				
35-39				
40-44				
45-49				
<b>Total</b>				

This table provides the basic data needed to calculate indirect estimates of infant and child mortality. The number of children ever born for each woman is obtained by assigning a value of zero to women who have never given birth (CM1=2) and by the response to the question that sums the number of children in the Child Mortality Module for those women who have given birth (CM9). The proportion dead is based on the answers to CM8.

Estimation of mortality rates should be preceded by some basic checks of data quality. Programs to perform data quality analyses are available from UNICEF New York.

The table above will need to be run separately for each background characteristic in table CM.1 to produce the input data needed to estimate the infant and under five mortality rates in table CM.1.

**Table NU.1: Child malnourishment**

Percentage of children aged 0-59 months who are severely or moderately malnourished, Country, Year

	Weight for age		Height for age		Weight for height			Number of children aged 0-59 months
	% below - 2 SD*	% below - 3 SD*	% below - 2 SD**	% below - 3 SD**	% below - 2 SD***	% below - 3 SD***	% above + 2 SD	
<b>Sex</b>								
Male								
Female								
<b>Region</b>								
Region 1								
Region 2								
Region 3								
<b>Residence</b>								
Urban								
Rural								
<b>Age</b>								
< 6 months								
6-11 months								
12-23 months								
24-35 months								
36-47 months								
48-59 months								
<b>Mother's education</b>								
None								
Primary								
Secondary +								
<b>Wealth index quintiles</b>								
Poorest								
Second								
Middle								
Fourth								
Richest								
<b>Ethnicity/Language/Religion</b>								
Group 1								
Group 2								
Group 3								
Total								

\* MICS indicator 6; MDG indicator 4

\*\* MICS indicator 7

\*\*\* MICS indicator 8

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/WHO 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 percent 'below -2 standard deviations' includes those who fall -3 standard deviations below the median.

Children whose height or weight are missing are excluded from the calculations. If height and weight data are missing for more than 10 percent 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.

**Table 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, Country, Year

	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
<b>Region</b>			
Region 1			
Region 2			
Region 3			
<b>Residence</b>			
Urban			
Rural			
<b>Months since birth</b>			
< 6 months			
6-11 months			
12-23 months			
<b>Mother's education</b>			
None			
Primary			
Secondary +			
<b>Wealth index quintiles</b>			
Poorest			
Second			
Middle			
Fourth			
Richest			
<b>Ethnicity/Language/Religion</b>			
Group 1			
Group 2			
Group 3			
Total			

**\* MICS indicator 45**

\* MN13=000 (immediately) OR 100 (less than 1 hour).

\*\* MN13=000 (immediately) OR (MN13 >= 100 and MN13 <= 123). Includes children who started breastfeeding within one hour of birth.

Denominator: Women with a birth in the two years preceding the survey (CM12=Yes).

**Table NU.3: Breastfeeding**

Percentage of living children according to breastfeeding status at each age group, Country, Year

	Children 0-3 months		Children 0-5 months		Children 6-9 months		Children 12-15 months		Children 20-23 months	
	Percent exclusively breastfed	Number of children	Percent exclusively breastfed*	Number of children	Percent receiving breastmilk and solid/ mushy food**	Number of children	Percent breastfed***	Number of children	Percent breastfed***	Number of children
<b>Sex</b>										
Male										
Female										
<b>Region</b>										
Region 1										
Region 2										
Region 3										
<b>Residence</b>										
Urban										
Rural										
<b>Mother's education</b>										
None										
Primary										
Secondary +										
<b>Wealth index quintiles</b>										
Poorest										
Second										
Middle										
Fourth										
Richest										
<b>Ethnicity/Language/Religion</b>										
Group 1										
Group 2										
Group 3										
Total										

**\* MICS indicator 15**

\* Children still breastfed (BF2=1) AND no other food given (answer must be 2 (No) for BF3B, C, D, E, F, G and H; only BF3A =1 is permissible).

**\*\* MICS indicator 17**

\*\* Children still breastfed (BF2=1) AND complementary foods given in the last 24 hours (BF3H=1), even if also given other breast milk substitutes.

**\*\*\* MICS indicator 16**

\*\*\* Children still breastfed (BF2=1)

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 breastmilk, or breastmilk and vitamins, mineral supplements, or medicine (BF2 = 1 and BF3B-BF3H = 2, BF3A can be = 1). Complementary feeding refers to children who receive breastmilk and solid or semi-solid food (BF2 = 1 and BF3H = 1).



**Table NU.3w. Infant feeding patterns by age**

Percent distribution of children aged under 3 years by feeding pattern by age group, Country, Year

	Infant feeding pattern						Total	Number of children
	Exclusively breastfed	Breastfed and plain water only	Breastfed and non-milk liquids	Breastfed and other milk / formula	Breastfed and other complimentary foods	Weaned (not breastfed)		
<b>Age in months</b>								
0-1								
2-3								
4-5								
6-7								
8-9								
10-11								
12-13								
14-15								
16-17								
18-19								
20-21								
22-23								
24-25								
26-27								
28-29								
30-31								
32-33								
34-35								

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 breastmilk, or breastmilk and vitamins, mineral supplements, or medicine (BF2 = 1 and BF3B-BF3H = 2, BF3A can be = 1).

Breastfed and plain water only: BF2 = 1 and BF3B = 1, and BF3C-BF3H >< 1

Breastfed and non-milk liquids: BF2 = 1 and (BF3C = 1 or BF3D = 1 or BF3G = 1) and BF3E, BF3F and BF3H >< 1

Breastfed and other milk/formula: BF2 = 1 and ((BF3E or BF3F = 1) and BF3H >< 1)

Breastfed and other complimentary foods: BF2 = 1 and BF3H = 1

Weaned (not breastfed): BF1 >< 1 or BF2 >< 1

This table provides the data needed to produce the graph on breastfeeding patterns by age

**Table 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, Country, Year

	Percent of infants					Number of infants aged 0-11 months
	0-5 months exclusively breastfed	6-8 months who received breastmilk and complementary food at least 2 times in prior 24 hours	9-11 months who received breastmilk and complementary food at least 3 times in prior 24 hours	6-11 months who received breastmilk and complementary food at least the minimum recommended number of times per day*	0-11 months who were appropriately fed**	
<b>Sex</b>						
Male						
Female						
<b>Region</b>						
Region 1						
Region 2						
Region 3						
<b>Residence</b>						
Urban						
Rural						
<b>Mother's education</b>						
None						
Primary						
Secondary +						
<b>Wealth index quintiles</b>						
Poorest						
Second						
Middle						
Fourth						
Richest						
<b>Ethnicity/Language/Religion</b>						
Group 1						
Group 2						
Group 3						
Total						

\* **MICS indicator 18**

\* Breastfeeding module, (BF2=1 AND BF5>=2) for 6-8 month olds OR (BF2=1 AND BF5>=3) for 9-11 month olds

\*\* **MICS indicator 19**

\*\* Children 0-5 months still breastfed (Breastfeeding module, BF2=1) AND no other food given (answer must be 2 (No) for BF3B, C, D, E, F, G and H; only BF3A =1 is permissible), plus children 6-11 months who ate complementary foods -- (BF2=1 AND BF5>=2) for 6-8 month olds OR (BF2=1 AND BF5>=3) for 9-11 month olds

**Table NU.5: Iodized salt consumption**

Percentage of households consuming adequately iodized salt, Country, Year

	Percent of households in which salt was tested	Number of households interviewed	Percent of households with			Total	Number of households in which salt was tested or with no salt
			Salt test result				
			No salt	< 15 PPM	15+ PPM*		
Region							
Region 1						100.0	
Region 2						100.0	
Region 3						100.0	
Residence							
Urban						100.0	
Rural						100.0	
Wealth index quintiles							
Poorest						100.0	
Second						100.0	
Middle						100.0	
Fourth						100.0	
Richest						100.0	
Total						100.0	

**\* MICS indicator 41**

*Adequately iodized salt* is defined as salt that contains at least 15 parts per million of iodine.

If a household has salt, but it is not tested (SI1=7), these households are omitted from the denominator of the indicator.

If fewer than 90 percent of households in the survey had their salt tested, caution should be exercised in the interpretation of the results.

**Table NU.6: Children's vitamin A supplementation**

Percent distribution of children aged 6-59 months by whether they have received a high dose vitamin A supplement in the last 6 months, Country, Year

	Percent of children who received vitamin A:			Not sure if received vitamin A	Never received vitamin A	Total	Number of children aged 6-59 months
	Within last 6 months*	Prior to last 6 months	Not sure when				
<b>Sex</b>							
Male						100.0	
Female						100.0	
<b>Region</b>							
Region 1						100.0	
Region 2						100.0	
Region 3						100.0	
<b>Residence</b>							
Urban						100.0	
Rural						100.0	
<b>Age</b>							
6-11 months						100.0	
12-23 months						100.0	
24-35 months						100.0	
36-47 months						100.0	
48-59 months						100.0	
<b>Mother's education</b>							
None						100.0	
Primary						100.0	
Secondary +						100.0	
<b>Wealth index quintiles</b>							
Poorest						100.0	
Second						100.0	
Middle						100.0	
Fourth						100.0	
Richest						100.0	
<b>Ethnicity/Language/Religion</b>							
Group 1						100.0	
Group 2						100.0	
Group 3						100.0	
Total						100.0	

**\* MICS indicator 42**

\* Although the MICS questionnaire includes a question on Vitamin A supplements for all children under age 5, this table is based on data for children aged 6-59 months only. Those who received a Vitamin A supplement 6 months ago or less are included in the first column (VA1 = 1 and VA2 < 6).

Vitamin A supplementation is recommended in countries with an under-five mortality rate of 70 or higher or where Vitamin A deficiency is a public health problem. Capsules are generally given to children on visits to health centers or during National Immunization Day campaigns. If a campaign was held in a country just prior to or after the MICS survey, this will affect the results reported in this table.

**Table NU.7: Post-partum mothers' vitamin A supplementation**

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

	Received vitamin A supplement*	Not sure if received vitamin A	Number of women aged 15-49 years
<b>Region</b>			
Region 1			
Region 2			
Region 3			
<b>Residence</b>			
Urban			
Rural			
<b>Education</b>			
None			
Primary			
Secondary +			
<b>Wealth index quintiles</b>			
Poorest			
Second			
Middle			
Fourth			
Richest			
<b>Ethnicity/Language/Religion</b>			
Group 1			
Group 2			
Group 3			
Total			

**\*MICS indicator 43**

The numerator includes all women who say they received a vitamin A dose in the first two months after their last birth (even if their last birth was less than two months prior to the interview) (MN1 = 1). The denominator includes women who had a live birth in the two years preceding the date of interview.

**Table NU.8: Low birth weight infants**

Percentage of live births in the 2 years preceding the survey that weighed below 2500 grams at birth, Country, Year

	Percent of live births:		Number of live births
	Below 2500 grams*	Weighed at birth**	
<b>Region</b>			
Region 1			
Region 2			
Region 3			
<b>Residence</b>			
Urban			
Rural			
<b>Mother's education</b>			
None			
Primary			
Secondary +			
<b>Wealth index quintiles</b>			
Poorest			
Second			
Middle			
Fourth			
Richest			
<b>Ethnicity/Language/Religion</b>			
Group 1			
Group 2			
Group 3			
Total			

\* MICS indicator 9

\*\* MICS indicator 10

The percentage of births weighing below 2500 grams is estimated from two items in the questionnaire: the mother's assessment of the child's **size** at birth (i.e., very small, smaller than average, average, larger than average, very large) (MN9) and the mother's recall of the child's **weight** if the child was weighed at birth (MN11). First, the two items are cross-tabulated for those children who were weighed at birth to obtain the proportion of births in each category of size who weighed less than 2500 grams (25% of children reported as weighing exactly 2500 grams are treated as weighing less than 2500 grams to adjust for heaping on 2500 grams -- this is based on empirical distributions from DHS surveys). This proportion is then multiplied by the total number of children falling in the size category to obtain the estimated number of children in each size category who were of low birth weight. The numbers for each size category are summed to obtain the total number of low birth weight children. This number is divided by the total number of live births to obtain the percentage with low birth weight.

In the example shown below, the estimated number of births weighing less than 2500 grams is 157.3 and the total number of births is 950 so the percentage with low birth weight is 157.3/950 or 16.6%

**Example: Low birth weight estimation**

	Number of weighed births	Number of births weighing < 2500 g	Number of births weighing exactly 2500 g	Proportion of births weighing < 2500 g	Total number of births	Estimated number < 2500 g
Size at birth	(1)	(2)	(3)	$((2) + ((3) \times 0.25)) / (1) = (4)$	(5)	$(4) \times (5) = (6)$
Very large	100	2	2	0.025	120	3.0
Larger than average	200	6	4	0.035	240	8.4
Average	250	28	18	0.130	300	39.0
Smaller than average	150	35	16	0.260	200	52.0
Very small	50	29	6	0.610	90	54.9
Total	-	-	-	-	950	157.3

Percent with low birth weight is  $157.3 / 950.0 = 16.6\%$

**Table CH.1: Vaccinations in first year of life**

Percentage of children aged 12-23 months immunized against childhood diseases at any time before the survey and before the first birthday, Country, Year

	Percentage of children who received:										Number of children aged 12-23 months
	BCG*	DPT1	DPT2	DPT3**	Polio0	Polio1	Polio2	Polio3***	Measles****	All*****	None
<b>Vaccinated at any time before the survey</b>											
<i>According to:</i>											
Vaccination card											
Mother's report											
Either											
Vaccinated by 12 months of age											

\* MICS indicator 25

\*\* MICS indicator 27

\*\*\* MICS indicator 26

\*\*\*\* MICS indicator 28; MDG indicator 15

\* Total number of 12-23 month olds vaccinated with BCG, (OPV3, DPT3, Measles, HepB, or HiB) before 12 months, as validated by card or mother's recall. To estimate the number of children without a card to have received vaccine before 1<sup>st</sup> 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 1<sup>st</sup> birthday.

\*\*\*\* In countries where measles vaccination is typically given at 15 months of age, such as in Latin America, 18-29 month-old age group is used.

\*\*\*\*\* MICS indicator 31

\*\*\*\*\* Number of 12-23 month-olds receiving DPT1-3, OPV-1-3, BCG and measles before first birthday.

This table is based on information copied onto the questionnaire from a vaccination card (IM2 – IM4C and IM6) AND, in cases for which no card was available, on the mother's or caretaker's reports of the child's vaccination history (IM11 – IM17). The denominator for the vaccination coverage rates includes children age 12-23 months so that only children who are old enough to be fully vaccinated are counted. In the top panel, the numerator includes all children who were vaccinated at any time before the survey according to the vaccination card or the mother's report. In the bottom panel, only those who were vaccinated before their first birthday should be included. For children without vaccination cards, the proportion of vaccinations given before the first birthday is assumed to be the same as for children with vaccination cards.

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



**Table CH.1c: Vaccinations in first year of life (continued)**

Percentage of children aged 12-23 months immunized against childhood diseases at any time before the survey and before the first birthday, Country, Year

	Percentage of children who received:						Yellow fever**	Number of children aged 12-23 months
	HepB1	HepB2	HepB3*	Hib1	Hib2	Hib3		
<b>Vaccinated at any time before the survey</b>								
<i>According to:</i>								
Vaccination card								
Mother's report								
Either								
 Vaccinated by 12 months of age								

\* MICS indicator 29

\*\* MICS indicator 30

This table is based on information copied onto the questionnaire from a vaccination card (IM5A – IM7) AND, in cases for which no card was available, on the mother's or caretaker's reports of the child's vaccination history (IM11 – IM17). The denominator for the vaccination coverage rates includes children age 12-23 months so that only children who are old enough to be fully vaccinated are counted. In the top panel, the numerator includes all children who were vaccinated at any time before the survey according to the vaccination card or the mother's report. In the bottom panel, only those who were vaccinated before their first birthday should be included. For children without vaccination cards, the proportion of vaccinations given before the first birthday is assumed to be the same as for children with vaccination cards.

Note: Columns on Hib are intended for only those countries where Hib is part of the immunization schedule and therefore added to the questionnaire

**Table CH.2: Vaccinations by background characteristics**

Percentage of children aged 12-23 months currently vaccinated against childhood diseases, Country, Year

	Percentage of children who received:											Percent with health card	Number of children aged 12-23 months
	BCG	DPT1	DPT2	DPT3	Polio0	Polio1	Polio2	Polio3	Measles	All	None		
<b>Sex</b>													
Male													
Female													
<b>Region</b>													
Region 1													
Region 2													
Region 3													
<b>Residence</b>													
Urban													
Rural													
<b>Mother's education</b>													
None													
Primary													
Secondary +													
<b>Wealth index quintiles</b>													
Poorest													
Second													
Middle													
Fourth													
Richest													
<b>Ethnicity/Language/Religion</b>													
Group 1													
Group 2													
Group 3													
Total													

In this table, the calculation is the same as the top panel of Table CH.1 (i.e., the child's age at vaccination is not taken into account). Children who were vaccinated at any time before the survey are included in the numerator.

**Table CH.2c: Vaccinations by background characteristics (continued)**

Percentage of children aged 12-23 months currently vaccinated against childhood diseases, Country, Year

	Percentage of children who received:						Yellow Fever	Percent with health card	Number of children aged 12-23 months
	HepB1	HepB2	HepB3	Hib1	Hib2	Hib3			
<b>Sex</b>									
Male									
Female									
<b>Region</b>									
Region 1									
Region 2									
Region 3									
<b>Residence</b>									
Urban									
Rural									
<b>Mother's education</b>									
None									
Primary									
Secondary +									
<b>Wealth index quintiles</b>									
Poorest									
Second									
Middle									
Fourth									
Richest									
<b>Ethnicity/Language/Religion</b>									
Group 1									
Group 2									
Group 3									
Total									

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

Note: Columns on Hib are intended for only those countries where Hib is part of the immunization schedule and therefore added to the questionnaire

**Table CH.3: Neonatal tetanus protection**

Percentage of mothers with a birth in the last 12 months protected against neonatal tetanus, Country, Year

	Percent of mothers with a birth in the last 12 months who:					Protected against tetanus*	Number of mothers
	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		
<b>Region</b>							
Region 1							
Region 2							
Region 3							
<b>Residence</b>							
Urban							
Rural							
<b>Education</b>							
None							
Primary							
Secondary +							
<b>Wealth index quintiles</b>							
Poorest							
Second							
Middle							
Fourth							
Richest							
<b>Ethnicity/Language/Religion</b>							
Group 1							
Group 2							
Group 3							
Total							

**\* MICS indicator 32**

The information contained in the first five columns of this table are calculated in a hierarchical fashion:

- 1) If the mother reports receiving at least two tetanus toxoid injections during the most recent pregnancy (TT3  $\geq$  2), she should be included in the first column.
- 2) If she reports receiving one injection during the last pregnancy (TT3=1) and at least one dose prior to the pregnancy (TT6 $\geq$ 1) or at least two tetanus toxoid injections (TT6  $\geq$  2) the last of which occurred less than 3 years ago (TT2 = 1 or TT8 < 3 years ago) she should be included in the second column.
- 3) If she received at least 3 tetanus toxoid injections over her lifetime (TT6  $\geq$  3), the last of which occurred in the last 5 years (this may include one during her last pregnancy) (TT2 = 1 or TT8 < 5), then she should be included in the third column.
- 4) If she does not report either of the three previous situations but she has received at least 4 tetanus toxoid injections during her lifetime (TT6  $\geq$  4), the last of which was in the last 10 years (TT8 < 10), then she should be included in the fourth column.
- 5) Finally if she has not yet been included in one of the categories, but received five or more tetanus toxoid injections (TT6  $\geq$  5) at any point in her lifetime she falls in the fifth column

All women who fall into one of the first 5 columns are considered 'protected against tetanus' and should be included in the sixth column.

In many surveys, the sample sizes may be too small to present breakdowns by background characteristics.

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.

**Table 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), Country, Year

	Had diarrhoea in last two weeks	Number of children aged 0-59 months	Children with diarrhoea who received:				ORT Use Rate *	Number of children aged 0-59 months with diarrhoea
			Fluid from ORS packet	Recommended homemade fluid	Pre-packaged ORS fluid	No treatment		
<b>Sex</b>								
Male								
Female								
<b>Region</b>								
Region 1								
Region 2								
Region 3								
<b>Residence</b>								
Urban								
Rural								
<b>Age</b>								
0-11 months								
12-23 months								
24-35 months								
36-47 months								
48-59 months								
<b>Mother's education</b>								
None								
Primary								
Secondary +								
<b>Wealth index quintiles</b>								
Poorest								
Second								
Middle								
Fourth								
Richest								
<b>Ethnicity/Language/Religion</b>								
Group 1								
Group 2								
Group 3								
Total								

\* MICS indicator 33

\* Percent under fives with diarrhoea in previous 2 weeks who received oral rehydration salts or an appropriate household solution (ORT)  
In this table, 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 (CA1 = 1 and CA2A = 1 or CA2B = 1 or CA2C=1).

**Table 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, Country, Year

	Children with diarrhoea who:						Received ORT or increased fluids AND continued feeding**	Number of children aged 0-59 months with diarrhoea
	Had diarrhoea in last two weeks	Number of children aged 0-59 months	Drank more	Drank the same or less	Ate somewhat less, same or more	Ate much less or none	Home manage- ment of diarrhoea*	
<b>Sex</b>								
Male								
Female								
<b>Region</b>								
Region 1								
Region 2								
Region 3								
<b>Residence</b>								
Urban								
Rural								
<b>Age</b>								
0-11 months								
12-23 months								
24-35 months								
36-47 months								
48-59 months								
<b>Mother's education</b>								
None								
Primary								
Secondary +								
<b>Wealth index quintiles</b>								
Poorest								
Second								
Middle								
Fourth								
Richest								
<b>Ethnicity/Language/Religion</b>								
Group 1								
Group 2								
Group 3								
Total								

**\* MICS indicator 34**

\* Home management of diarrhoea - Percent of under fives with diarrhoea in previous 2 weeks (CA1=1) who took "more" fluids (CA3=3) AND continued eating somewhat less, the same or more food (CA4 = 3, 4, or 5).

**\*\* MICS indicator 35**

\*\* Received ORT or increased fluids and continued feeding - Percent of under fives with diarrhoea in previous 2 weeks (CA1=1) who received [ORS and/or an appropriate household solution (ORT) or took "more" fluids (CA2A=1 or CA2B=1 or CA2C=1 or CA3=3)] AND who continued eating somewhat less, the same or more food (CA4 = 3,4 or 5).

**Table 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, Country, Year

	Had acute respiratory infection <sup>1</sup>	Number of children aged 0-59 months	Children with suspected pneumonia who were taken to:												Number of children aged 0-59 months with suspected pneumonia	
			Public sources				Private sources				Other source					
			Govt. health centre	Govt. health post	Village health worker	Mobile/ outreach clinic	Other public	Private hospital/ clinic	Private physician	Pharmacy	Mobile clinic	Other private medical	Relative or friend	Shop		Trad. Practitioner
<b>Sex</b>																
Male																
Female																
<b>Region</b>																
Region 1																
Region 2																
Region 3																
<b>Residence</b>																
Urban																
Rural																
<b>Age</b>																
0-11 months																
12-23 months																
24-35 months																
36-47 months																
48-59 months																
<b>Mother's education</b>																
None																
Primary																
Secondary +																
<b>Wealth index quintiles</b>																
Poorest																
Second																
Middle																
Fourth																
Richest																
<b>Ethnicity/ Language/ Religion</b>																
Group 1																
Group 2																
Group 3																
Total																

\* **MICS indicator 23**

\* CA5=1 AND CA6=1 AND (CA7=1 OR 3) AND having seen an appropriate health provider, CA8=1 AND (CA9=A-H, I-J, L-O) (excludes Pharmacy)

<sup>1</sup> Children with acute respiratory infection or suspected pneumonia are those who had an illness with a cough (CA5=1) accompanied by rapid or difficult breathing (CA6=1) and whose symptoms were due to a problem in the chest, or both a problem in the chest and a blocked nose (CA7=1 or 3).

In this table, 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.

**Table CH.7: Antibiotic treatment of pneumonia**

Percentage of children aged 0-59 months with suspected pneumonia who received antibiotic treatment, Country, Year

	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
<b>Sex</b>		
Male		
Female		
<b>Region</b>		
Region 1		
Region 2		
Region 3		
<b>Residence</b>		
Urban		
Rural		
<b>Age</b>		
0-11 months		
12-23 months		
24-35 months		
36-47 months		
48-59 months		
<b>Mother's education</b>		
None		
Primary		
Secondary +		
<b>Wealth index quintiles</b>		
Poorest		
Second		
Middle		
Fourth		
Richest		
<b>Ethnicity/Language/Religion</b>		
Group 1		
Group 2		
Group 3		
Total		

**\* MICS indicator 22**

\* Numerator: CA5=1 AND CA6=1 AND (CA7=1 OR 3) AND CA11=A

Children with suspected pneumonia are those who had an illness with a cough (CA5=1) accompanied by rapid or difficult breathing (CA6=1) and whose symptoms were due to a problem in the chest, or both a problem in the chest and a blocked nose (CA7=1 or 3).



**Table 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. Country, Year

	Percentage of mothers/caretakers of children aged 0-59 months who think that a child should be taken immediately to a health facility if the child:							Mothers/caretakers who recognize the two danger signs of pneumonia*	Number of mothers/caretakers of children aged 0-59 months
	Is not able to drink or breastfeed	Becomes sicker	Develops a fever	Has fast breathing	Has difficult breathing	Has blood in stool	Is drinking poorly	Has other symptoms	
<b>Region</b>									
Region 1									
Region 2									
Region 3									
<b>Residence</b>									
Urban									
Rural									
<b>Mother's education</b>									
None									
Primary									
Secondary +									
<b>Wealth index quintiles</b>									
Poorest									
Second									
Middle									
Fourth									
Richest									
<b>Ethnicity/Language/Religion</b>									
Group 1									
Group 2									
Group 3									
Total									

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

\* CA14=D AND E

In this table, the percentages will not add to 100 since some mothers/caretakers may have indicated more than one symptom.

**Table CH.8: Solid fuel use**

Percent distribution of households according to type of cooking fuel, and percentage of households using solid fuels for cooking, Country, Year

Percentage of households using:														
Region	Electricity	Liquified Petroleum Gas (LPG)	Natural Gas	Biogas	Kerosene	Coal, lignite	Charcoal	Wood	Straw, shrubs, grass	Animal dung	Agricultural crop residue	Other source	Solid fuels for cooking*	
													Total	Number of households
Region 1													100.0	
Region 2													100.0	
Region 3													100.0	
Residence														
Urban													100.0	
Rural													100.0	
Education of household head														
None													100.0	
Primary													100.0	
Secondary +													100.0	
Wealth index quintiles														
Poorest													100.0	
Second													100.0	
Middle													100.0	
Fourth													100.0	
Richest													100.0	
Ethnicity/Language/Religion														
Group 1													100.0	
Group 2													100.0	
Group 3													100.0	
Total													100.0	

\* MICS indicator 24; MDG Indicator 29

\* Households that use solid fuels (HC6 = 06, 07, 08, 09, 10, OR 11) as the primary source of domestic energy to cook.

**Table CH.9: Solid fuel use by type of stove or fire**

Percentage of households using solid fuels for cooking by type of stove or fire, Country, Year

	Percentage of households using solid fuels for cooking:					Number of households using solid fuels for cooking
	Closed stove with chimney	Open stove or fire with chimney or hood	Open stove or fire with no chimney or hood	Other stove	Total	
<b>Region</b>						
Region 1					100.0	
Region 2					100.0	
Region 3					100.0	
<b>Residence</b>						
Urban					100.0	
Rural					100.0	
<b>Education of household head</b>						
None					100.0	
Primary					100.0	
Secondary +					100.0	
<b>Wealth index quintiles</b>						
Poorest					100.0	
Second					100.0	
Middle					100.0	
Fourth					100.0	
Richest					100.0	
<b>Ethnicity/Language/Religion</b>						
Group 1					100.0	
Group 2					100.0	
Group 3					100.0	
<b>Total</b>					100.0	

Numerators for columns (1)-(5) are HC6=06-11 AND (1) HC7=3; (2) HC7=1 OR 2 AND HC7A=1; (3) HC7=1 OR 2 AND HC7A<>1; (4) HC7=6. Denominators for each column are households using solid fuels for cooking (see Table CH.8).

**Table CH.10: Availability of insecticide treated nets**

Percentage of households with at least one insecticide treated net (ITN), Country, Year

	Percentage of households with at least one mosquito net	Percentage of households with at least one insecticide treated net (ITN)*	Number of households
<b>Region</b>			
Region 1			
Region 2			
Region 3			
<b>Residence</b>			
Urban			
Rural			
<b>Education of household head</b>			
None			
Primary			
Secondary +			
<b>Wealth index quintiles</b>			
Poorest			
Second			
Middle			
Fourth			
Richest			
<b>Ethnicity/Language/Religion</b>			
Group 1			
Group 2			
Group 3			
Total			

**\*MICS indicator 36**

\*From ITN module, ITN is defined as:

(1) long-lasting net (TN3L1=1 OR TN3L2=1) OR

(2) pre-treated net obtained in the previous 12 months ((TN3P1=1 OR TN3P2=1) AND TN6&lt;12) OR

(3) other net obtained in previous 12 months and pre-treated ((TN3O1=1 OR TN3O2=1 OR TN3O3=1 OR TN3O4=1) AND TN5=1 AND TN6&lt;12) OR

(4) pre-treated or other net treated in the previous 12 months ((TN3P1=1 OR TN3P2=1 OR TN3O1=1 OR TN3O2=1 OR TN3O3=1 OR TN3O4=1) AND TN7=1 AND TN8&lt;12)).

A household is considered to have at least one mosquito net if TN1 = 1.

**Table CH.11: Children sleeping under bednets**

Percentage of children aged 0-59 months who slept under an insecticide treated net during the previous night, Country, Year

	Percentage of children who:						Number of children aged 0-59 months
	Slept under a bednet*	Slept under an insecticide treated net**	Slept under an untreated net	Slept under a net but don't know if treated	Don't know if slept under a net	Did not sleep under a bednet	
<b>Sex</b>							
Male							
Female							
<b>Region</b>							
Region 1							
Region 2							
Region 3							
<b>Residence</b>							
Urban							
Rural							
<b>Age</b>							
0-11 months							
12-23 months							
24-35 months							
36-47 months							
48-59 months							
<b>Wealth index quintiles</b>							
Poorest							
Second							
Middle							
Fourth							
Richest							
<b>Ethnicity/Language/Religion</b>							
Group 1							
Group 2							
Group 3							
Total							

**\* MICS indicator 38**

\* Numerator: ML10 = 1

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

\*\* From Malaria module, those who slept under a net that was: (1) long-lasting net (ML12=11 OR 12) OR (2) pre-treated net obtained in the previous 12 months ((ML12=21 OR 22) AND ML11<12) OR (3) other net obtained in the previous 12 months and already treated (ML11<12 AND ML13=1) OR (4) net was treated within the last 12 months (ML14=1 AND ML15 <12).

**Table 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, Country, Year

Children with a fever in the last two weeks who were treated with:												
	Had a fever in last two weeks	Number of children aged 0-59 months	Anti-malarials:					Other medications:				
			SP/ Fansidar	Chloroquine	Amodiaquine	Quinine	Artemisinin based combinations	Other anti-malarial drug	Any appropriate anti-malarial drug	Paracetamol/ Panadol/ Acetaminophen	Aspirin	Ibuprofen

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

\* The percentages given various drugs will not add to 100 since some children may have been given more than one type of drug. The percentage given an 'appropriate anti-malarial drug within 24 hours of onset of symptoms' includes those who were given (ML4=A-H OR ML7=A-H) AND (ML9=0 OR 1)

In this table, the denominator for the columns on treatment is children who had a fever in the two weeks prior to the interview (ML1 = 1).

**Table 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, Country, Year

	Percentage of pregnant women who took:							Number of women who gave birth in prior two years
	Medicine to prevent malaria during pregnancy	SP/Fansidar only one time	SP/Fansidar two or more times*	SP/Fansidar, number unknown**	Chloroquine	Other medicines	Don't know	
<b>Region</b>								
Region 1								
Region 2								
Region 3								
<b>Residence</b>								
Urban								
Rural								
<b>Education</b>								
None								
Primary								
Secondary +								
<b>Wealth index quintiles</b>								
Poorest								
Second								
Middle								
Fourth								
Richest								
<b>Ethnicity/Language/Religion</b>								
Group 1								
Group 2								
Group 3								
Total								

**\* MICS indicator 40**

\* Intermittent Preventive Therapy (IPT) is defined as pregnant women who received at least 2 doses of SP/Fansidar (MN6B=A AND MN6D>=2) during pregnancy

\*\* If the percentage receiving SP/Fansidar but with the number unknown is less than 1 percent, this column may be omitted from the table.

**Table CH.14: Source and cost of supplies for insecticide treated nets**

Percent distribution of households by source of insecticide treated nets for prevention of malaria, percentage of households obtaining insecticide treated nets for free, and median cost of insecticide treated nets for those paying for the nets, by type of source of net, Country, Year

	Source of insecticide treated net				Number of households with at least one ITN	Percentage free		Median cost for those not free	
	Public*	Private	Other	Total		Public	Private	Public**	Private**
<b>Region</b>									
Region 1				100.0					
Region 2				100.0					
Region 3				100.0					
<b>Residence</b>									
Urban				100.0					
Rural				100.0					
<b>Education of household head</b>									
None				100.0					
Primary				100.0					
Secondary +				100.0					
<b>Wealth index quintiles</b>									
Poorest				100.0					
Second				100.0					
Middle				100.0					
Fourth				100.0					
Richest				100.0					
<b>Ethnicity/Language/Religion</b>									
Group 1				100.0					
Group 2				100.0					
Group 3				100.0					
Total				100.0					

**\* MICS indicator 96**

\* ITN Numerator: TN3A=11-19; Denominator: From ITN module:

(1) long-lasting net (TN3L1=1 OR TN3L2=1) OR

(2) pre-treated net obtained in the previous 12 months ((TN3P1=1 OR TN3P2=1) AND TN6<12) OR

(3) other net obtained in previous 12 months and pre-treated ((TN3O1=1 OR TN3O2=1 OR TN3X=1 OR TN3Z=1) AND TN5=1 AND TN6<12) OR

(4) pre-treated or other net treated in the previous 12 months ((TN3P1=1 OR TN3P2=1 OR TN3O1=1 OR TN3O2=1 OR TN3X=1 OR TN3Z=1) AND TN7=1 AND TN8<12)).

**\*\* MICS indicator 97**



**Table CH.15: Source and cost of supplies for antimalarials**

Percent distribution of children with fever aged 0-59 months who took antimalarials in the two weeks preceding the survey by source of antimalarials, percentage of children for whom antimalarials were obtained for free, and median cost of antimalarials for those paying for antimalarials, Country, Year

	Source of antimalarials				Number of children with fever in prior 2 weeks who were treated with antimalarials	Percentage free		Median cost for those not free	
	Public*	Private	Other	Total		Public	Private	Public**	Private**
<b>Sex</b>									
Male				100.0					
Female				100.0					
<b>Region</b>									
Region 1				100.0					
Region 2				100.0					
Region 3				100.0					
<b>Residence</b>									
Urban				100.0					
Rural				100.0					
<b>Mother's education</b>									
None				100.0					
Primary				100.0					
Secondary +				100.0					
<b>Wealth index quintiles</b>									
Poorest				100.0					
Second				100.0					
Middle				100.0					
Fourth				100.0					
Richest				100.0					
<b>Ethnicity/Language/Religion</b>									
Group 1				100.0					
Group 2				100.0					
Group 3				100.0					
Total				100.0					

\* MICS indicator 96

\* Antimalarials Numerator: ML9A=11-19; Denominator: ML4=A-H or ML7=A-H

\*\* MICS indicator 97

**Table CH.16: Source and cost of supplies for antibiotics**

Percent distribution of children aged 0-59 months with suspected pneumonia during the two weeks preceding the survey by source of antibiotics for treatment of pneumonia, percentage of children aged 0-59 months with suspected pneumonia during the two weeks preceding the survey for whom antibiotics were obtained for free, and median cost of antibiotics for those paying for the antibiotics, by type of source of antibiotics, Country, Year

	Source of antibiotics				Number of children with suspected pneumonia in prior 2 weeks who received antibiotics	Percentage free		Median cost for those not free	
	Public*	Private	Other	Total		Public	Private	Public**	Private**
<b>Sex</b>									
Male				100.0					
Female				100.0					
<b>Region</b>									
Region 1				100.0					
Region 2				100.0					
Region 3				100.0					
<b>Residence</b>									
Urban				100.0					
Rural				100.0					
<b>Mother's education</b>									
None				100.0					
Primary				100.0					
Secondary +				100.0					
<b>Wealth index quintiles</b>									
Poorest				100.0					
Second				100.0					
Middle				100.0					
Fourth				100.0					
Richest				100.0					
<b>Ethnicity/Language/Religion</b>									
Group 1				100.0					
Group 2				100.0					
Group 3				100.0					
Total				100.0					

\* MICS indicator 96

Antibiotic Numerator: CA11B=11-19; Denominator: CA11=A

\*\* MICS indicator 97

**Table CH.17: Source and cost of supplies for oral rehydration salts**

Percent distribution of children aged 0-59 months with diarrhoea during the two weeks preceding the survey by source of oral rehydration salts for treatment of diarrhoea, percentage of children aged 0-59 months with diarrhoea during the two weeks preceding the survey for whom oral rehydration salts were obtained for free, and median cost of oral rehydration salts for those paying for the oral rehydration salts, by type of source of oral rehydration salts, Country, Year

	Source of oral rehydration salts				Number of children with diarrhoea in prior 2 weeks who received oral rehydration salts	Percentage free		Median cost for those not free	
	Public*	Private	Other	Total		Public	Private	Public**	Private**
<b>Sex</b>									
Male				100.0					
Female				100.0					
<b>Region</b>									
Region 1				100.0					
Region 2				100.0					
Region 3				100.0					
<b>Residence</b>									
Urban				100.0					
Rural				100.0					
<b>Mother's education</b>									
None				100.0					
Primary				100.0					
Secondary +				100.0					
<b>Wealth index quintiles</b>									
Poorest				100.0					
Second				100.0					
Middle				100.0					
Fourth				100.0					
Richest				100.0					
<b>Ethnicity/Language/Religion</b>									
Group 1				100.0					
Group 2				100.0					
Group 3				100.0					
Total				100.0					

\* MICS indicator 96

ORS Numerator: CA4B=11-19; Denominator: CA2A=1

\*\* MICS indicator 97

**Table EN.1: Use of improved water sources**

Percent distribution of household population according to main source of drinking water and percentage of household population using improved drinking water sources, Country, Year

	Main source of drinking water														Improved source of drinking water*	Number of household members
	Improved sources							Unimproved sources								
	Piped into dwelling	Piped into yard/plot	Public tap/stand-pipe	Tube-well/bore-hole	Pro-protected well	Pro-protected spring	Rain-water	Bottled water <sup>1</sup>	Unpro-protected well	Unpro-protected spring	Tanker truck	Cart with tank/drum	Surface water	Bottled water <sup>1</sup>		
Region																
Region 1																100.0
Region 2																100.0
Region 3																100.0
Residence																
Urban																100.0
Rural																100.0
Education of household head																
None																100.0
Primary																100.0
Secondary +																100.0
Wealth index quintiles																
Poorest																100.0
Second																100.0
Middle																100.0
Fourth																100.0
Richest																100.0
Ethnicity/Language/Religion																
Group 1																100.0
Group 2																100.0
Group 3																100.0
Total																100.0

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

\* Water and Sanitation Module, WS1=11, 12, 13, 21, 31, 41, 51 OR (WS1=91 AND WS2=11, 12, 13, 21, 31, 41, 51)

<sup>1</sup> For households using bottled water as the main source of drinking water, the source used for other purposes such as cooking and handwashing is used to determine whether to classify the source as improved.

Persons living in households with one of these sources of drinking water are classified as using an improved source of drinking water.

This indicator is obtained by weighting the number of households by the number of household members (HH11).

**Table EN.2: Household water treatment**

Percent 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. Country, Year

	Water treatment method used in the household					All drinking water sources		Improved drinking water sources		Unimproved drinking water sources	
	None	Boil	Strain through a cloth	Use water filter	Solar disinfection	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
<b>Region</b>											
Region 1											
Region 2											
Region 3											
<b>Residence</b>											
Urban											
Rural											
<b>Education of household head</b>											
None											
Primary											
Secondary +											
<b>Wealth index quintiles</b>											
Poorest											
Second											
Middle											
Fourth											
Richest											
<b>Ethnicity/Language/Religion</b>											
Group 1											
Group 2											
Group 3											
Total											

\* **MICS indicator 13**

\* Drinking water is considered treated if one the following methods of treatment are used: boiling; adding bleach or chlorine; using a water filter; or using solar disinfection (WS6=A, B, D, E)

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

**Table EN.3: Time to source of water**

Percent 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, Country, Year

	Time to source of drinking water						Total	Mean time to source of drinking water*	Number of households
	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			
<b>Region</b>									
Region 1							100.0		
Region 2							100.0		
Region 3							100.0		
<b>Residence</b>									
Urban							100.0		
Rural							100.0		
<b>Education of household head</b>									
None							100.0		
Primary							100.0		
Secondary +							100.0		
<b>Wealth index quintiles</b>									
Poorest							100.0		
Second							100.0		
Middle							100.0		
Fourth							100.0		
Richest							100.0		
<b>Ethnicity/Language/Religion</b>									
Group 1							100.0		
Group 2							100.0		
Group 3							100.0		
Total							100.0		

\* The mean time to source of drinking water is calculated based on those households that do not have water on the premises.

**Table EN.4: Person collecting water**

Percent distribution of households according to the person collecting drinking water used in the household, Country, Year

	Person collecting drinking water					Total	Number of households
	Adult woman	Adult man	Female child under age 15	Male child under age 15	Don't know		
<b>Region</b>							
Region 1						100.0	
Region 2						100.0	
Region 3						100.0	
<b>Residence</b>							
Urban						100.0	
Rural						100.0	
<b>Education of household head</b>							
None						100.0	
Primary						100.0	
Secondary +						100.0	
<b>Wealth index quintiles</b>							
Poorest						100.0	
Second						100.0	
Middle						100.0	
Fourth						100.0	
Richest						100.0	
<b>Ethnicity/Language/Religion</b>							
Group 1						100.0	
Group 2						100.0	
Group 3						100.0	
Total						100.0	

**Table EN.5: Use of sanitary means of excreta disposal**

Percent distribution of household population according to type of toilet facility used by the household, and the percentage of household population using sanitary means of excreta disposal, Country, Year

	Type of toilet facility used by household												Percentage of population using sanitary means of excreta disposal*	Number of household members
	Improved sanitation facility						Unimproved sanitation facility							
	Flush/pour flush to:													
	Septic tank		Pit latrine	Ventilated improved pit latrine	Pit latrine with slab	Composting toilet	Flush/pour flush to some-where else		Flush/pour flush to unknown place/not sure/don't know	Pit latrine without slab/ open pit	Bucket hanging toilet/ hanging latrine	Other bush / field		
	Total											Total		
Region														
Region 1													100.0	
Region 2													100.0	
Region 3													100.0	
Residence														
Urban													100.0	
Rural													100.0	
Education of household head														
None													100.0	
Primary													100.0	
Secondary +													100.0	
Wealth index quintiles														
Poorest													100.0	
Second													100.0	
Middle													100.0	
Fourth													100.0	
Richest													100.0	
Ethnicity/Language/Religion														
Group 1													100.0	
Group 2													100.0	
Group 3													100.0	
Total													100.0	

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

\* This indicator is based on responses to WS7. WS7=11, 12, 13, 21, 22, 31.

This indicator is obtained by weighting the number of households by the number of household members (HH11).



**Table EN.5w: Shared use of improved sanitation facilities (working table)**

Percent distribution of household population using improved sanitation facilities by the number of households using the facility, Country, Year

	<b>Number of households using the improved sanitation facility*</b>											Number of household members using improved sanitation facilities
	1**	2	3	4	5	6	7	8	9	10 or more	Don't know	
<b>Type of facility</b>												
Flush/pour flush to piped sewer system												100.0
Flush/pour flush to septic tank												100.0
Flush/pour flush to pit latrine												100.0
Ventilated improved pit latrine												100.0
Pit latrine with slab												100.0
Composting toilet												100.0
<b>Region</b>												
Region 1												100.0
Region 2												100.0
Region 3												100.0
<b>Residence</b>												
Urban												100.0
Rural												100.0
<b>Education of household head</b>												
None												100.0
Primary												100.0
Secondary +												100.0
<b>Wealth index quintiles</b>												
Poorest												100.0
Second												100.0
Middle												100.0
Fourth												100.0
Richest												100.0
<b>Ethnicity/Language/Religion</b>												
Group 1												100.0
Group 2												100.0
Group 3												100.0
<b>Total</b>												100.0

\* Improved sanitation facilities: WS7=11, 12, 13, 21, 22, 31 - see table EN.5.

\*\* Indicates that the sanitation facility is not shared with members of other households.

**Table EN.6: Disposal of child's faeces**

Percent 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, Country, Year

	Place of disposal of child's faeces								Total	Proportion of children whose stools are disposed of safely*	Number of children aged 0-2 years
	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			
<b>Region</b>											
Region 1									100.0		
Region 2									100.0		
Region 3									100.0		
<b>Residence</b>											
Urban									100.0		
Rural									100.0		
<b>Mother's education</b>											
None									100.0		
Primary									100.0		
Secondary +									100.0		
<b>Wealth index quintiles</b>											
Poorest									100.0		
Second									100.0		
Middle									100.0		
Fourth									100.0		
Richest									100.0		
<b>Ethnicity/Language/Religion</b>											
Group 1									100.0		
Group 2									100.0		
Group 3									100.0		
Total									100.0		

\* MICS indicator 14

\* CA13=1 OR 2

**Table EN.7: Use of improved water sources and improved sanitation**

Percentage of household population using both improved drinking water sources and sanitary means of excreta disposal, Country, Year

	Percentage of household population:			Number of household members
	Using improved sources of drinking water*	Using sanitary means of excreta disposal**	Using improved sources of drinking water and using sanitary means of excreta disposal***	
<b>Region</b>				
Region 1				
Region 2				
Region 3				
<b>Residence</b>				
Urban				
Rural				
<b>Education of household head</b>				
None				
Primary				
Secondary +				
<b>Wealth index quintiles</b>				
Poorest				
Second				
Middle				
Fourth				
Richest				
<b>Ethnicity/Language/Religion</b>				
Group 1				
Group 2				
Group 3				
Total				

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

\* Water and Sanitation Module, WS1=11, 12, 13, 21, 31, 41, 51 OR (WS1=91 AND WS2=11, 12, 13, 21, 31, 41, 51)

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

\*\* This indicator is based on responses to WS7. WS7=11, 12, 13, 21, 22, 31.

\*\*\* This indicator is the percentage of household members using both improved sources of drinking water as defined in MICS indicator 11 and sanitary means of excreta disposal as defined in MICS indicator 12.

**Table EN.8: Security of tenure**

Percentage of household members living in households in urban areas (*or in capital city*) which lack formal documentation for their residence in the dwelling or who feel at risk of eviction from the dwelling, and percentage of household members who were evicted from any dwelling in prior 5 years, Country, Year

	Household does not have formal documentation for the residence	Respondent feels there is a risk of eviction	Household does not have security of tenure*	Household members evicted from any dwelling in prior 5 years	Number of household members
<b>Education of household head</b>					
None					
Primary					
Secondary +					
<b>Wealth index quintiles</b>					
Poorest					
Second					
Middle					
Fourth					
Richest					
<b>Ethnicity/Language/Religion</b>					
Group 1					
Group 2					
Group 3					
Total					

**\* MICS indicator 93**

\* Households are considered not to have security of tenure if the household does not have formal documentation for the residence (HC15B<>1 AND HC15C<>A,B AND HC15D<>1), or the household members feel at risk of eviction from the dwelling (HC15F=2)

**Table EN.9: Durability of Housing**

Percentage of households and household members living in dwellings in urban areas (*or in capital city*) that are not considered durable, by background characteristics, Country, Year

	Dwelling has natural floor material	Dwelling is in poor condition	Dwelling is vulnerable to accidents	Dwelling located in hazardous location	Percent of households living in dwellings considered non-durable*	Number of households	Percent of household members living in dwellings considered non-durable	Number of household members
<b>Education of household head</b>								
None								
Primary								
Secondary +								
<b>Wealth index quintiles</b>								
Poorest								
Second								
Middle								
Fourth								
Richest								
<b>Ethnicity/Language/Religion</b>								
Group 1								
Group 2								
Group 3								
Total								

**\* MICS indicator 94**

\* Dwelling is considered non-durable if it, a) Has a natural floor (column 1) and is in poor condition (column 2), or b) is vulnerable to accidents (column 3), or c) is located in a hazardous location (column 4)

Numerators of the columns are constructed as follows:

1. Dwelling has natural floor (HC3=11-19)
2. Dwelling has two or more of the following repair needs: cracks or openings in walls, no windows, broken glass in windows, holes in roof, incomplete roof, insecure door. (two or more of HC15I=A-F)
3. Dwelling has very narrow passages between houses instead of road AND too many power cables connecting to neighborhood's distribution post. (HC15J=A AND B)
4. Dwelling is located near four or more of the following hazards: landslide area, flood prone area, river bank, steep hill, garbage dump, industrial pollution area, railroad, powerplant, flyover. (four or more of HC15H=A-I)

**Table EN.10: Slum housing**

Percentage of households and household members in urban areas (*or in capital city*) that are considered as living in slum housing, by background characteristics, Country, Year

	Dwelling is considered non- durable	Lack of security of tenure	Over- crowding: more than three persons per sleeping room	Lack of use of improved water source	Lack of use of improved sanitation	Percent of households considered to be living in slum housing *	Number of households	Percent of household members considered to be living in slum housing	Number of household members
<b>Education of household head</b>									
None									
Primary									
Secondary +									
<b>Wealth index quintiles</b>									
Poorest									
Second									
Middle									
Fourth									
Richest									
<b>Ethnicity/Language/Religion</b>									
Group 1									
Group 2									
Group 3									
Total									

**\* MICS indicator 95; MDG indicator 32**

\* A household is considered to be living in slum housing if one of the following five conditions exists:

1. Lack of durable housing (see table EN.9)
2. Lack of security of tenure (see table EN.8)
3. Overcrowding, number of persons per sleeping room (HH11/HC2) > 3
4. Lack of use of improved water source (see table EN.1)
5. Lack of use of improved sanitation (see table EN.5)

**Table RH.1: Use of contraception**

Percentage of women aged 15-49 years currently married or in union who are using (or whose partner is using) a contraceptive method, Country, Year

	Percent of women (currently married or in union) who are using:													Number of women currently married or in union			
	Not using any method	Female sterilization	Male sterilization	Pill	IUD	Injections	Implants	Condom	Female condom	Diaphragm/foam/jelly	LAM	Periodic abstinence	Withdrawal		Other	Any modern method	Any traditional method
<b>Region</b>																	
Region 1																	
Region 2																	
Region 3																	
<b>Residence</b>																	
Urban																	
Rural																	
<b>Age</b>																	
15-19																	
20-24																	
25-29																	
30-34																	
35-39																	
40-44																	
45-49																	
<b>Number of living children**</b>																	
0																	
1																	
2																	
3																	
4+																	
<b>Education</b>																	
None																	
Primary																	
Secondary +																	
<b>Wealth index quintiles</b>																	
Poorest																	
Second																	
Middle																	
Fourth																	
Richest																	
<b>Ethnicity/Language/Religion</b>																	
Group 1																	
Group 2																	
Group 3																	
Total																	

\* MICS indicator 21; MDG indicator 19C

\* MA1=1 or 2 and CP2=1

Modern methods of contraception include: female and male sterilization, pill, IUD, injection, implant, male and female condom, diaphragm, and foam/jelly (CP3 = A-J). Traditional methods include: LAM (lactational amenorrhea method), periodic abstinence, withdrawal, and other methods (CP3 = K-M,X). The question allows the respondent to mention current use of more than one method. If more than one method is mentioned, the case should be assigned to only one column of the table, in the order in which the columns are specified. If 1 percent or more of contraceptive users report using a combination of methods, additional categories should be created.

\*\* Grouping should be decided on the basis of unweighted numbers of women in each category

**Table RH.2: Unmet need for contraception**

Percentage of women aged 15-49 years currently married or in union with an unmet need for family planning and percentage of demand for contraception satisfied, Country, Year

	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****			
<b>Region</b>							
Region 1							
Region 2							
Region 3							
<b>Residence</b>							
Urban							
Rural							
<b>Age</b>							
15-19							
20-24							
25-29							
30-34							
35-39							
40-44							
45-49							
<b>Education</b>							
None							
Primary							
Secondary +							
<b>Wealth index quintiles</b>							
Poorest							
Second							
Middle							
Fourth							
Richest							
<b>Ethnicity/Language/Religion</b>							
Group 1							
Group 2							
Group 3							
Total							

\* MICS indicator 21; MDG indicator 19C

\*\*\*\* MICS indicator 98

\*\*\*\*\* MICS indicator 99

\* MA1=1 or 2 and CP2=1

\*\* Unmet need for spacing is defined as women who are fecund and not currently using contraception ((CP1=1 OR CP4E<>2) AND CP2<>1) and want to space their births (CP1=1 AND CP1A=2) OR (CP1<>1 AND CP4A=1 AND (CP4C>=2 years OR CP4C=995)).

\*\*\* Unmet need to limit is defined as women who are fecund and not currently using contraception ((CP1=1 OR CP4E<>2) AND CP2<>1) and want to limit their births (CP1=1 AND CP1A=3) OR (CP1<>1 AND CP4A=2)).

\*\*\*\*\* Proportion of demand satisfied is defined as the proportion of currently married or in union women who are currently using contraception (col.1) of the total demand for contraception (total unmet need plus current use - col.4 + col.1).

The denominator for this table includes women who are currently married or in union (MA1=1 or 2).



**Table RH.3: Antenatal care provider**

Percent distribution of women aged 15-49 who gave birth in the two years preceding the survey by type of personnel providing antenatal care, Country, Year

	Person providing antenatal care**					No antenatal care received	Total	Any skilled personnel*	Number of women who gave birth in the preceding two years
	Medical doctor	Nurse/ midwife	Auxiliary midwife	Traditional birth attendant	Other				
<b>Region</b>									
Region 1							100.0		
Region 2							100.0		
Region 3							100.0		
<b>Residence</b>									
Urban							100.0		
Rural							100.0		
<b>Age</b>									
15-19							100.0		
20-24							100.0		
25-29							100.0		
30-34							100.0		
35-39							100.0		
40-44							100.0		
45-49							100.0		
<b>Education</b>									
None							100.0		
Primary							100.0		
Secondary +							100.0		
<b>Wealth index quintiles</b>									
Poorest							100.0		
Second							100.0		
Middle							100.0		
Fourth							100.0		
Richest							100.0		
<b>Ethnicity/Language/Religion</b>									
Group 1							100.0		
Group 2							100.0		
Group 3							100.0		
Total							100.0		

\* MICS indicator 20

\* Skilled health personnel includes doctors, nurses, midwives, and auxiliary midwives. MN2=A, B, C

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

**Table RH.4: Antenatal care**

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

	Percent of pregnant women receiving ANC one or more times during pregnancy	Percent 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*	
<b>Region</b>					
Region 1					
Region 2					
Region 3					
<b>Residence</b>					
Urban					
Rural					
<b>Age</b>					
15-19					
20-24					
25-29					
30-34					
35-39					
40-44					
45-49					
<b>Education</b>					
None					
Primary					
Secondary +					
<b>Wealth index quintiles</b>					
Poorest					
Second					
Middle					
Fourth					
Richest					
<b>Ethnicity/Language/Religion</b>					
Group 1					
Group 2					
Group 3					
Total					

**\* MICS indicator 44**

\* Proportions calculated separately: Total number of women weighed, blood pressure measured, gave urine sample, gave blood sample: MN3A=1; MN3B=1; MN3C=1; MN3D=1.

**Table RH.4w: Antenatal care content (working table)**

Percentage of pregnant women receiving specific care as part of the antenatal care provided, among women aged 15-49 years who gave birth in two years preceding the survey and received antenatal care, Country, Year

	Percent of pregnant women who had:				Number of women who gave birth in two years preceding survey and received antenatal care
	Blood test taken*	Blood pressure measured*	Urine specimen taken*	Weight measured*	
<b>Region</b>					
Region 1					
Region 2					
Region 3					
<b>Residence</b>					
Urban					
Rural					
<b>Age</b>					
15-19					
20-24					
25-29					
30-34					
35-39					
40-44					
45-49					
<b>Education</b>					
None					
Primary					
Secondary +					
<b>Wealth index quintiles</b>					
Poorest					
Second					
Middle					
Fourth					
Richest					
<b>Ethnicity/Language/Religion</b>					
Group 1					
Group 2					
Group 3					
Total					

\* Proportions calculated separately: Total number of women weighed, blood pressure measured, gave urine sample, gave blood sample: MN3A=1; MN3B=1; MN3C=1; MN3D=1. Denominator includes women who gave birth in the last 2 years AND received antenatal care

**Table RH.5: Assistance during delivery**

Percent distribution of women aged 15-49 with a birth in two years preceding the survey by type of personnel assisting at delivery, Country, Year

	Person assisting at delivery						Total	Any skilled personnel*	Delivered in health facility**	Number of women who gave birth in preceding two years
	Medical doctor	Nurse/ midwife	Auxiliary midwife	Traditional birth attendant	Other	No attendant				
<b>Region</b>										
Region 1							100.0			
Region 2							100.0			
Region 3							100.0			
<b>Residence</b>										
Urban							100.0			
Rural							100.0			
<b>Age</b>										
15-19							100.0			
20-24							100.0			
25-29							100.0			
30-34							100.0			
35-39							100.0			
40-44							100.0			
45-49							100.0			
<b>Education</b>										
None							100.0			
Primary							100.0			
Secondary +							100.0			
<b>Wealth index quintiles</b>										
Poorest							100.0			
Second							100.0			
Middle							100.0			
Fourth							100.0			
Richest							100.0			
<b>Ethnicity/Language/Religion</b>										
Group 1							100.0			
Group 2							100.0			
Group 3							100.0			
Total							100.0			

\* MICS indicator 4; MDG indicator 17

\*\* MICS indicator 5

\* Skilled health personnel includes doctors, nurses, midwives, and auxiliary midwives. MN7=A, B, C

\*\* Health Facility: MN8=21-26 OR 31-36

Denominator is total number of women with a birth in the last 2 years, CM12 = Yes

**Table RH.6: Maternal mortality ratio**

Lifetime risk of maternal death and proportion of dead sisters dying of maternal causes, Country, Year

	Number of adult household respondents	Sisters who reached age 15	Sisters who reached age 15 (adjusted)	Sisters who reached aged 15 and who died	Maternal deaths	Adjustment factor	Sister units of risk exposure	Lifetime risk of maternal death	Proportion of dead sisters dying of maternal causes
<b>Respondent age</b>									
15-19			**			0.107			
20-24			**			0.206			
25-29			**			0.343			
30-34						0.503			
35-39						0.664			
40-44						0.802			
45-49						0.900			
50-54						0.958			
55-59						0.986			
60+						1.000			
Total						-			
<b>Maternal Mortality Ratio*</b>									

**\* MICS indicator 3; MDG indicator 16**

See Graham, W. W. Brass and R. Snow 1989. Estimating maternal mortality: the sisterhood method. *Studies in Family Planning* 20(3):125-135

MMR (Maternal Mortality Ratio) =  $(1 - (1 - \text{LTR})^{(1/\text{TFR})}) * 100000$ , where LTR is Lifetime risk of maternal death and TFR is Total Fertility Rate

\*\* Sisters aged 15+ for the first three age groups are adjusted to be equal to the number of respondents in the age group times the average number of sisters to respondents aged 30+

**Table 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, Country, Year

	Percentage of children aged 0-59 months					Number of children aged 0-59 months
	For whom household members engaged in four or more activities that promote learning and school readiness*	Mean number of activities household members engage in with the child	For whom the father engaged in one or more activities that promote learning and school readiness**	Mean number of activities the father engaged in with the child	Living in a household without their natural father	
<b>Sex</b>						
Male						
Female						
<b>Region</b>						
Region 1						
Region 2						
Region 3						
<b>Residence</b>						
Urban						
Rural						
<b>Age</b>						
0-23 months						
24-59 months						
<b>Mother's education</b>						
None						
Primary						
Secondary +						
<b>Father's education</b>						
None					na	
Primary					na	
Secondary +					na	
Father not in HH			na	na	na	
<b>Wealth index quintiles</b>						
Poorest						
Second						
Middle						
Fourth						
Richest						
<b>Ethnicity/Language/Religion</b>						
Group 1						
Group 2						
Group 3						
Total						

\* MICS indicator 46

\* Any adult has engaged in 4 or more activities to promote learning and school readiness in the past 3 days (BR8A-F=A,B,X)

\*\* MICS Indicator 47

\*\* Father has provided one or more activities to promote learning and school readiness (BR8A-F=B)

**Table CD.2: Learning materials**

Percentage of children aged 0-59 months living in households containing learning materials, Country, Year

	Children living in households with:		Child has:		Child plays with:					3 or more types of playthings ***	Number of children aged 0-59 months
	3 or more non-children's books*	Median number of non-children's books	3 or more children's books**	Median number of children's books	Household objects	Objects and materials found outside the home	Home-made toys	Toys that came from a store	No playthings mentioned		
<b>Sex</b>											
Male											
Female											
<b>Region</b>											
Region 1											
Region 2											
Region 3											
<b>Residence</b>											
Urban											
Rural											
<b>Age</b>											
0-23 months											
24-59 months											
<b>Mother's education</b>											
None											
Primary											
Secondary +											
<b>Wealth index quintiles</b>											
Poorest											
Second											
Middle											
Fourth											
Richest											
<b>Ethnicity/Language/Religion</b>											
Group 1											
Group 2											
Group 3											
Total											

**\* MICS indicator 49**

\* The numerator is based on responses to CE1 (CE1&gt;=3 and CE1&lt;=98). The median is calculated excluding cases where the response is unknown.

**\*\* MICS indicator 48**

\*\* The numerator is based on responses to CE2 (CE2&gt;=3 and CE2&lt;=98). The median is calculated excluding cases where the response is unknown.

**\*\*\* MICS indicator 50**

\*\*\* The numerator is based on CE3 where the responses included 3 or more of A, B, C and D.

**Table CD.3: Children left alone or with other children**

Percentage of children aged 0-59 months left in the care of other children under the age of 10 years or left alone in the past week, Country, Year

	Percentage of children aged 0-59 months			
	Left in the care of children under the age of 10 years in past week	Left alone in the past week	Left with inadequate care in past week*	Number of children aged 0-59 months
<b>Sex</b>				
Male				
Female				
<b>Region</b>				
Region 1				
Region 2				
Region 3				
<b>Residence</b>				
Urban				
Rural				
<b>Age</b>				
0-23 months				
24-59 months				
<b>Mother's education</b>				
None				
Primary				
Secondary +				
<b>Wealth index quintiles</b>				
Poorest				
Second				
Middle				
Fourth				
Richest				
<b>Ethnicity/Language/Religion</b>				
Group 1				
Group 2				
Group 3				
Total				

**\* MICS indicator 51**

\* Inadequate care is defined as children left in the care of other children under the age of 10 years (CE4>0) or left alone (CE5>0) in the past week.



**Table ED.1: Early childhood education**

Percentage of children aged 36-59 months who are attending some form of organized early childhood education programme and percentage of first graders who attended pre-school, Country, Year

	Percentage of children aged 36-59 months currently attending early childhood education*	Number of children aged 36-59 months	Percentage of children attending first grade who attended preschool program in previous year**	Number of children attending first grade
<b>Sex</b>				
Male				
Female				
<b>Region</b>				
Region 1				
Region 2				
Region 3				
<b>Residence</b>				
Urban				
Rural				
<b>Age of child</b>				
36-47 months			na	na
48-59 months			na	na
6 years***	na	na		
<b>Mother's education</b>				
None				
Primary				
Secondary +				
<b>Wealth index quintiles</b>				
Poorest				
Second				
Middle				
Fourth				
Richest				
<b>Ethnicity/Language/Religion</b>				
Group 1				
Group 2				
Group 3				
Total				

**\* MICS indicator 52**

\* The numerator includes children for whom BR6 = 1. The denominator is children aged 36-59 months.

**\*\* MICS indicator 53**

\*\* The numerator includes children for whom: (ED6 Level=1 and ED6 Grade=1) and ED8=0. The denominator is the number of children attending first grade of primary education (ED6 Level=1 and ED6 Grade=1).

\*\*\* 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.

**Table ED.2: Primary school entry**

Percentage of children of primary school entry age attending grade 1\*, Country, Year

	Percentage of children of primary school entry age currently attending grade 1*	Number of children of primary school entry age**
<b>Sex</b>		
Male		
Female		
<b>Region</b>		
Region 1		
Region 2		
Region 3		
<b>Residence</b>		
Urban		
Rural		
<b>Age of child**</b>		
6		
7		
<b>Mother's education</b>		
None		
Primary		
Secondary +		
<b>Wealth index quintiles</b>		
Poorest		
Second		
Middle		
Fourth		
Richest		
<b>Ethnicity/Language/Religion</b>		
Group 1		
Group 2		
Group 3		
Total		

**\* MICS indicator 54**

\* The numerator includes children for whom: HL5=primary school entry age and (ED6 Level=1 and ED6 Grade=1 or 2). The denominator is the number of children of primary school entry age

\*\* Primary school entry age defined at the country level (usually based on UNESCO's ISCED1 classification).

**Table ED.3: Primary school net attendance ratio**

Percentage of children of primary school age\*\* attending primary or secondary school (NAR), Country, Year

	Male		Female		Total	
	Net attendance ratio	Number of children	Net attendance ratio	Number of children	Net attendance ratio*	Number of children
<b>Region</b>						
Region 1						
Region 2						
Region 3						
<b>Residence</b>						
Urban						
Rural						
<b>Age**</b>						
5						
6						
7						
8						
9						
10						
11						
12						
>12						
<b>Mother's education</b>						
None						
Primary						
Secondary +						
<b>Wealth index quintiles</b>						
Poorest						
Second						
Middle						
Fourth						
Richest						
<b>Ethnicity/Language/Religion</b>						
Group 1						
Group 2						
Group 3						
Total						

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

\* 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 (HL5=age group defined at the country level\*\*) currently attending primary or secondary school (ED6A=1 or 2) are included in the numerator. All children of primary school age are included in the denominator.

\*\* The primary school age range of the population to be included in this table should correspond to country-specific primary school ages as indicated by ISCED1

**Table ED.4: Secondary school net attendance ratio**

Percentage of children of secondary school age\*\* attending secondary school or higher (NAR), Country, Year

	Male		Female		Total	
	Net attendance ratio	Number of children	Net attendance ratio	Number of children	Net attendance ratio*	Number of children
<b>Region</b>						
Region 1						
Region 2						
Region 3						
<b>Residence</b>						
Urban						
Rural						
<b>Age**</b>						
11						
12						
13						
14						
15						
16						
17						
18						
>18						
<b>Mother's education</b>						
None						
Primary						
Secondary +						
<b>Wealth index quintiles</b>						
Poorest						
Second						
Middle						
Fourth						
Richest						
<b>Ethnicity/Language/Religion</b>						
Group 1						
Group 2						
Group 3						
Total						

**\* MICS indicator 56**

\* 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 (HL5=age group defined at the country level\*\*) currently attending secondary school or higher (ED6A=2 or 3) are included in the numerator. All children of secondary school age are included in the denominator.

\*\* The secondary school age range of the population to be included in this table should correspond to country-specific secondary school ages.

**Table ED.4w: Secondary school age children attending primary school**

Percentage of children of secondary school age\*\* attending primary school, Country, Year

	Male		Female		Total	
	Percent attending primary school	Number of children	Percent attending primary school	Number of children	Percent attending primary school	Number of children
<b>Region</b>						
Region 1						
Region 2						
Region 3						
<b>Residence</b>						
Urban						
Rural						
<b>Age**</b>						
11						
12						
13						
14						
15						
16						
17						
18						
>18						
<b>Mother's education</b>						
None						
Primary						
Secondary +						
<b>Wealth index quintiles</b>						
Poorest						
Second						
Middle						
Fourth						
Richest						
<b>Ethnicity/Language/Religion</b>						
Group 1						
Group 2						
Group 3						
Total						

\* Children of secondary school age (HL5=age group defined at the country level\*\*) currently attending primary school (ED6A=1) are included in the numerator. All children of secondary school age are included in the denominator.

\*\* The secondary school age range of the population to be included in this table should correspond to country-specific secondary school ages.

This table provides data for reporting on the proportion of children of secondary school age who are attending primary school. This indicator (percentage) should be used to complete the analysis for secondary school age children, including the secondary school net attendance rate and the proportion of children of secondary school age out of school.

**Table ED.5: Children reaching grade 5**

Percentage of children entering first grade of primary school who eventually reach grade 5, Country, Year

	Percent attending 2 <sup>nd</sup> grade who were in 1 <sup>st</sup> grade last year	Percent attending 3 <sup>rd</sup> grade who were in 2 <sup>nd</sup> grade last year	Percent attending 4 <sup>th</sup> grade who were in 3 <sup>rd</sup> grade last year	Percent attending 5 <sup>th</sup> grade who were in 4 <sup>th</sup> grade last year	Percent who reach grade 5 of those who enter 1 <sup>st</sup> grade*
<b>Sex</b>					
Male					
Female					
<b>Region</b>					
Region 1					
Region 2					
Region 3					
<b>Residence</b>					
Urban					
Rural					
<b>Mother's education</b>					
None					
Primary					
Secondary +					
<b>Wealth index quintiles</b>					
Poorest					
Second					
Middle					
Fourth					
Richest					
<b>Ethnicity/Language/Religion</b>					
Group 1					
Group 2					
Group 3					
Total					

**\* MICS indicator 57; MDG indicator 7**

\* The survival rate to grade 5 is the percentage of children entering first grade of primary school who eventually reach grade 5. It is calculated as the product of four probabilities:

- The probability that a child graduates from first grade and enters second grade;
- The probability that a child graduates from second grade and enters third grade;
- The probability that a child graduates from third grade and enters fourth grade; and
- The probability that a child graduates from fourth grade and enters fifth grade.

To calculate the first probability, the number of children who are in second grade of primary school at the time of the survey (ED6A=1, ED6B=02) and who were in the first grade last year (ED8A=1, ED8B=01) are divided by the number of children who were in the first grade last year (ED8A=1, ED8B=01) and graduated to second grade (ED6A=1, ED6B=02) or dropped out of school (ED4=2). The children who repeated first grade do not enter the calculation because it is not known whether they will eventually graduate. The calculation of the other three probabilities is similar: the number who graduated from one grade to another divided by the number who graduated or dropped out of that grade. The four probabilities are then multiplied together to obtain the cumulative probability of reaching fifth grade among those who enter first grade.

**Table ED.6: Primary school completion and transition to secondary education**

Primary school completion rate and transition rate to secondary education, Country, Year

	Net primary school completion rate*	Number of children of primary school completion age	Transition rate to secondary education**	Number of children who were in the last grade of primary school the previous year
<b>Sex</b>				
Male				
Female				
<b>Region</b>				
Region 1				
Region 2				
Region 3				
<b>Residence</b>				
Urban				
Rural				
<b>Mother's education</b>				
None				
Primary				
Secondary +				
<b>Wealth index quintiles</b>				
Poorest				
Second				
Middle				
Fourth				
Richest				
<b>Ethnicity/Language/Religion</b>				
Group 1				
Group 2				
Group 3				
Total				

**\* MICS indicator 59; MDG indicator 7b**

\* The net primary completion rate is the total number of students of primary graduation age who are completing the final year of primary education, expressed as a percentage of the population of the official primary school graduation age. It is calculated as:  $\text{Primary completion rate} = 100 * (\text{number of children of primary graduation age in last primary grade} - \text{repeaters}) / (\text{number of children of primary school graduation age})$ .

Children attending the last grade of primary school are those with ED6A=1, ED6B=the last grade and HL5=primary school graduation age. Repeaters are those in the last grade of primary in both ED6 and ED8 (ED6A=1, ED6B=the last grade and ED8A=1, ED8B=the last grade). The denominator are children whose age (HL5) is equal to the age corresponding to the last grade of primary school.

**\*\* MICS indicator 58**

\*\* The transition rate to secondary education is the percentage of children in the last grade of primary school who attend the first grade of secondary school the following year. It is calculated as:  $\text{Transition rate to secondary education} = 100 * (\text{number of children in first secondary grade who were in last primary grade the previous year}) / (\text{number of children in the last primary grade the previous year})$ .

Children attending secondary school who were in primary school the year before the survey are those with ED6A=2 and ED8A=1, ED8B=the last grade of primary education. The denominator is children who were in the last grade of primary the previous year (ED8A=1, ED8B=the last grade of primary school).

**Table ED.7: Education gender parity**

Ratio of girls to boys attending primary education and ratio of girls to boys attending secondary education, Country, Year

	Primary school net attendance ratio (NAR), girls	Primary school net attendance ratio (NAR), boys	Gender parity index (GPI) for primary school NAR*	Secondary school net attendance ratio (NAR), girls	Secondary school net attendance ratio (NAR), boys	Gender parity index (GPI) for secondary school NAR*
<b>Sex</b>						
Male	na		na	na		na
Female		na	na		na	na
<b>Region</b>						
Region 1						
Region 2						
Region 3						
<b>Residence</b>						
Urban						
Rural						
<b>Mother's education</b>						
None						
Primary						
Secondary +						
<b>Wealth index quintiles</b>						
Poorest						
Second						
Middle						
Fourth						
Richest						
<b>Ethnicity/Language/Religion</b>						
Group 1						
Group 2						
Group 3						
Total						

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

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



**Table ED.8: Adult literacy**

Percentage of women aged 15-24 years that are literate\*, Country, Year

	Percentage literate*	Percentage not known**	Number of women aged 15-24 years
<b>Region</b>			
Region 1			
Region 2			
Region 3			
<b>Residence</b>			
Urban			
Rural			
<b>Education</b>			
None			
Primary			
Secondary +	100.0	0.0	
<b>Age</b>			
15-19			
20-24			
<b>Wealth index quintiles</b>			
Poorest			
Second			
Middle			
Fourth			
Richest			
<b>Ethnicity/Language/Religion</b>			
Group 1			
Group 2			
Group 3			
Total			

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

\* Percentage of women aged 15-24 years who are able to read a short simple statement about every day life (WM14=3) or who attended secondary or higher education (WM11=2 or 3).

\*\* The percentage not known includes those for whom no sentence in the required language was available (WM14=4) or for whom no response was reported. If the percentage of the population for whom literacy status is not known exceeds 10 percent in any category, caution should be exercised in the interpretation of the results.

**Table CP.1: Birth registration**

Percent distribution of children aged 0-59 months by whether birth is registered and reasons for non-registration, Country, Year

	Birth is registered*	Birth is not registered because:							Other	Don't know	Total	Number of children aged 0-59 months without birth registration
		Number of children aged 0-59 months	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					
<b>Sex</b>												
Male											100.0	
Female											100.0	
<b>Region</b>												
Region 1											100.0	
Region 2											100.0	
Region 3											100.0	
<b>Residence</b>												
Urban											100.0	
Rural											100.0	
<b>Age</b>												
0-11 months											100.0	
12-23 months											100.0	
24-35 months											100.0	
36-47 months											100.0	
48-59 months											100.0	
<b>Mother's education</b>												
None											100.0	
Primary											100.0	
Secondary +											100.0	
<b>Wealth index quintiles</b>												
Poorest											100.0	
Second											100.0	
Middle											100.0	
Fourth											100.0	
Richest											100.0	
<b>Ethnicity/Language/Religion</b>												
Group 1											100.0	
Group 2											100.0	
Group 3											100.0	
Total											100.0	

**\* MICS indicator 62**

\* The denominator of this table is all children age 0-59 months. The numerator for this indicator includes children, 0-59 months of age, whose birth certificate was seen by the interviewer (BR1=1) or whose mother or caretaker says the birth has been registered (BR2=1). The distribution of reasons for not registering the birth is based on BR3.

**Table CP.2: Child labour**

Percentage of children aged 5-14 years who are involved in child labour activities by type of work, Country, Year

	<b>Working outside household</b>		Household chores for 28+ hours/ week	Working for family business	Total child labour*	Number of children aged 5-14 years
	Paid work	Unpaid work				
<b>Sex</b>						
Male						
Female						
<b>Region</b>						
Region 1						
Region 2						
Region 3						
<b>Residence</b>						
Urban						
Rural						
<b>Age</b>						
5-11 years						
12-14 years						
<b>School participation</b>						
Yes						
No						
<b>Mother's education</b>						
None						
Primary						
Secondary +						
<b>Wealth index quintiles</b>						
Poorest						
Second						
Middle						
Fourth						
Richest						
<b>Ethnicity/Language/Religion</b>						
Group 1						
Group 2						
Group 3						
Total						

**\* MICS indicator 71**

\* The table is based on the responses to a series of questions in the child labour module which is administered to the mother/caretaker of each child in the household 5-14 years of age. The numerator to estimate the child labour 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 (HL5=5-11 and (CL3=1 or CL3=2 or CL8=1 or CL7>=28)), 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 (HL5=12-14 and ((CL4 + CL9)>=14 or CL7>=28)).

The numerators for the columns of the table are computed as follows:

- 1) CL3=1 and (HL5=5-11 or (HL5=12-14 and CL4>=14))
- 2) CL3=2 and (HL5=5-11 or (HL5=12-14 and CL4>=14))
- 3) CL6=1 and CL7>=28
- 4) CL8=1 and (HL5=5-11 or (HL5=12-14 and CL9>=14))
- 5) (HL5=5-11 and (CL3=1 or CL3=2 or CL8=1 or CL7>=28)) or (HL5=12-14 and (CL4+CL9>=14 or CL7>=28))

**Table CP.2w: Child labour (working table)**

Percentage of children aged 5-14 years who are currently working and the percentage who are involved in child labour activities (to be eliminated), by type of work, Country, Year

	Work outside the household				Household chores		Work for family business		All work		
	Paid work		Unpaid work		Any house-hold	28+ hours/ week	Any child work	Child labour (to be eliminated)	Any child work	Child labour (to be eliminated) / Total child labour*	Number of children aged 5-14 years
	Any child work	Child labour (to be eliminated)	Any child work	Child labour (to be eliminated)							
<b>Sex</b>											
Male											
Female											
<b>Region</b>											
Region 1											
Region 2											
Region 3											
<b>Residence</b>											
Urban											
Rural											
<b>Age</b>											
5-11 years											
12-14 years											
<b>School participation</b>											
Yes											
No											
<b>Mother's education</b>											
None											
Primary											
Secondary +											
<b>Wealth index quintiles</b>											
Poorest											
Second											
Middle											
Fourth											
Richest											
<b>Ethnicity/Language/Religion</b>											
Group 1											
Group 2											
Group 3											
Total											

**\* MICS indicator 71**

\* The table is based on the responses to a series of questions in the child labour module which is administered to the 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 (HL5=5-11 and (CL3=1 or CL3=2 or CL8=1 or CL7>=28)), 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 (HL5=12-14 and ((CL4 + CL9)>=14 or CL7>=28)).

The numerators for the columns of the table are computed as follows:

- 1) CL3=1
- 2) CL3=1 and (HL5=5-11 or (HL5=12-14 and CL4>=14))
- 3) CL3=2
- 4) CL3=2 and (HL5=5-11 or (HL5=12-14 and CL4>=14))
- 5) CL6=1
- 6) CL6=1 and CL7>=28
- 7) CL8=1
- 8) CL8=1 and (HL5=5-11 or (HL5=12-14 and CL9>=14))
- 9) CL3=1 or CL3=2 or (CL6=1 and CL7>=28) or CL8=1
- 10) (HL5=5-11 and (CL3=1 or CL8=1 or CL7>=28)) or (HL5=12-14 and (CL4+CL9>=14 or CL7>=28))

The analysis of the results found in this table should focus on the columns related to child labour (to be eliminated)

**Table CP.3: Labourer students and student labourers**

Percentage of children aged 5-14 years who are labourer students and student labourers, Country, Year

	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
<b>Sex</b>							
Male							
Female							
<b>Region</b>							
Region 1							
Region 2							
Region 3							
<b>Residence</b>							
Urban							
Rural							
<b>Age</b>							
5-9 years							
10-14 years							
<b>Mother's education</b>							
None							
Primary							
Secondary +							
<b>Wealth index quintiles</b>							
Poorest							
Second							
Middle							
Fourth							
Richest							
<b>Ethnicity/Language/Religion</b>							
Group 1							
Group 2							
Group 3							
Total							

\* 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 (HL5=5-11 and (CL3=1 or CL3=2 or CL8=1 or CL7>=28)), 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 (HL5=12-14 and ((CL4 + CL9)>=14 or CL7>=28)).

**\*\* MICS indicator 72**

\*\* Labourer students: Number of children 5-14 years of age involved in child labour activities that are also attending school (ED4=1) divided by the total number of children 5-14 years of age involved in child labour activities.

\*\*\* Percentage of children 5-14 years of age attending school (ED4=1)

**\*\*\*\* MICS indicator 73**

\*\*\*\* Student labourers: Number of children 5-14 years of age attending school (ED4=1) that are also involved in child labour activities divided by the total number of children 5-14 attending school (ED4=1)

**Table CP.4: Child discipline**

Percentage of children aged 2-14 years according to method of disciplining the child, Country, Year

	Percentage of children 2-14 years of age who experience:						Mother/caretaker believes that the child needs to be physically punished	Number of children aged 2-14 years**
	Only non-violent discipline	Psychological punishment	Minor physical punishment	Severe physical punishment	Any psychological or physical punishment*	No discipline or punishment		
<b>Sex</b>								
Male								
Female								
<b>Region</b>								
Region 1								
Region 2								
Region 3								
<b>Residence</b>								
Urban								
Rural								
<b>Age</b>								
2-4 years								
5-9 years								
10-14 years								
<b>Mother's education</b>								
None								
Primary								
Secondary +								
<b>Wealth index quintiles</b>								
Poorest								
Second								
Middle								
Fourth								
Richest								
<b>Ethnicity/Language/Religion</b>								
Group 1								
Group 2								
Group 3								
Total								

**\* MICS indicator 74**

The columns of the table refer to the following:

- 1) Children 2-14 years of age that experience only non-violent discipline (CD12A=1 OR CD12B=1 OR CD12E=1) AND (CD12C, CD12D, CD12F, CD12G, CD12H, CD12I, CD12J, AND CD12K=2)
- 2) Children 2-14 years of age that experience psychological punishment/discipline (CD12D=1 OR CD12H=1)
- 3) Children 2-14 years of age that experience minor physical punishment/discipline (CD12C=1 OR CD12F=1 OR CD12G=1 OR CD12J=1)
- 4) Children 2-14 years of age that experience severe physical punishment/discipline (CD12I=1 OR CD12K=1)
- 5) Children 2-14 years of age that experience any psychological or physical punishment/discipline (columns 2, 3 or 4)
- 6) Children 2-14 years of age that experience no psychological or physical punishment/discipline (CD12A through CD12K=2)
- 7) Children whose mother/caretaker believes that, in order to bring up the child properly, the child needs to be physically punished (CD13=1)

\*\* 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.

**Table CP.5: Early marriage and polygyny**

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, percentage of women aged 15-19 years currently married or in union, and the percentage of married or in union women in a polygynous marriage or union, Country, Year

	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	Percentage of women aged 15-49 years in polygynous marriage/ union***	Number of women aged 15-49 years currently married/in union
<b>Region</b>								
Region 1								
Region 2								
Region 3								
<b>Residence</b>								
Urban								
Rural								
<b>Age</b>								
15-19			na	na				
20-24					na	na		
25-29					na	na		
30-34					na	na		
35-39					na	na		
40-44					na	na		
45-49					na	na		
<b>Education</b>								
None								
Primary								
Secondary +								
<b>Wealth index quintiles</b>								
Poorest								
Second								
Middle								
Fourth								
Richest								
<b>Ethnicity/Language/Religion</b>								
Group 1								
Group 2								
Group 3								
Total								

**\* MICS indicator 67**

\* Women who were first married/in union (MA1=1 or 2 or MA3=1 or 2) by exact age 15, 18 (MA6-WM8<15,18) or (MA8<15,18), calculated using the Century Month Codes (CMCs).

**\*\* MICS indicator 68**

\*\* Women aged 15-19 currently married or in union (MA1=1 or 2)

**\*\*\* MICS indicator 70**

\*\*\* Women in a polygynous marriage/union (MA2A = 1) as a proportion of the total number of women currently married or in union (MA1=1 or 2).

**Table CP.6: Spousal age difference**

Percent distribution of currently married/in union women aged 15-19 and 20-24 years according to the age difference with their husband or partner, Country, Year

	Percentage of currently married/in union women aged 15-19 years whose husband or partner is:						Number of women aged 15- 19 years currently married/ in union	Percentage of currently married/in union women aged 20-24 years whose husband or partner is:						Number of women aged 20- 24 years currently married/ in union
	Younger	0-4 years older	5-9 years older	10+ years older*	Husband/ partner's age unknown	Total		Younger	0-4 years older	5-9 years older	10+ years older*	Husband/ partner's age unknown	Total	
<b>Region</b>														
Region 1						100.0							100.0	
Region 2						100.0							100.0	
Region 3						100.0							100.0	
<b>Residence</b>														
Urban						100.0							100.0	
Rural						100.0							100.0	
<b>Age</b>														
15-19						100.0		na	na	na	na	na	na	na
20-24	na	na	na	na	na	na	na						100.0	
<b>Education</b>														
None						100.0							100.0	
Primary						100.0							100.0	
Secondary +						100.0							100.0	
<b>Wealth index quintiles</b>														
Poorest						100.0							100.0	
Second						100.0							100.0	
Middle						100.0							100.0	
Fourth						100.0							100.0	
Richest						100.0							100.0	
<b>Ethnicity/Language/Religion</b>														
Group 1						100.0							100.0	
Group 2						100.0							100.0	
Group 3						100.0							100.0	
Total						100.0							100.0	

**\* MICS indicator 69**

\* Currently married or in union (MA1=1 or 2) women aged 15-19 and 20-24 according to the difference in age with their husbands/partners (MA2<>98 AND ((MA2-(WM6-WM8)>=10) OR (MA2-WM9>=10))= <0, 0-4, 5-9, 10+).



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

Percentage of women aged 15-49 years who have had any form of female genital mutilation/cutting (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), and the percent distribution among women who have heard of FGM/C according to attitudes towards whether the practice of FGM/C should be continued, Country, Year

	Percentage of women with FGM/C who:							Number of women aged 15-49 years who have heard of FGM/C	Percent distribution of women who believe the practice of FGM/C should:					
	Had any form of FGM/C*	Number of women aged 15-49 years	Had flesh removed	Were nicked	Were sewn closed	Form of FGM/C not determined	Total		Had an extreme form of FGM/C**	Number of women with FGM/C	Continue ***	Be discontinued	Depends on situation	Don't know
<b>Region</b>														
Region 1							100.0							100.0
Region 2							100.0							100.0
Region 3							100.0							100.0
<b>Residence</b>														
Urban							100.0							100.0
Rural							100.0							100.0
<b>Age</b>														
15-19							100.0							100.0
20-24							100.0							100.0
25-29							100.0							100.0
30-34							100.0							100.0
35-39							100.0							100.0
40-44							100.0							100.0
45-49							100.0							100.0
<b>Education</b>														
None							100.0							100.0
Primary							100.0							100.0
Secondary +							100.0							100.0
<b>FGM/C experience</b>														
No FGM/C	na	na	na	na	na	na	na	na	na					100.0
Had FGM/C	na	na	na	na	na	na	na	na	na					100.0
<b>Wealth index quintiles</b>														
Poorest							100.0							100.0
Second							100.0							100.0
Middle							100.0							100.0
Fourth							100.0							100.0
Richest							100.0							100.0
<b>Ethnicity/Language/Religion</b>														
Group 1							100.0							100.0
Group 2							100.0							100.0
Group 3							100.0							100.0
Total							100.0							100.0

**\* MICS indicator 63**

\* Women aged 15-49 reporting they had any type of female genital mutilation/cutting (FG3=1). Individual forms of FGM/C include the removal of flesh from the genital area (FG4=1), the nicking of the flesh of the genital area (FG5=1) and sewing closed the genital area (FG6=1)

**\*\* MICS indicator 64**

\*\* Extreme form of FGM/C (infibulation) is defined as both the removal of flesh from the genital area AND sewing closed the genital area (FG4=1 and FG6=1)

**\*\*\* MICS indicator 66**

\*\*\* Women who believe that the practice of FGM/C should be continued (FG16=1).

The column for form of FGM/C not determined is for those women who respond that they had been circumcised (FG3=1), but then do not respond 'yes' to any of the three following questions concerning the removal of flesh (FG4), nicking of the genital area (FG5) or whether the genital area was sewn closed (FG6)

**Table 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, Country, Year

	Percentage of women whose daughters:							Number of women aged 15-49 years with at least one living daughter who had FGM/C	
	Daughter had any form of FGM/C*	Number of women aged 15-49 years	Had flesh removed	Were nicked	Were sewn closed	Form of FGM/C not determined	Total	Daughter had an extreme form of FGM/C	
<b>Region</b>									
Region 1									
Region 2									
Region 3									
<b>Residence</b>									
Urban									
Rural									
<b>Age of woman</b>									
15-19									
20-24									
25-29									
30-34									
35-39									
40-44									
45-49									
<b>Age of daughter</b>									
0-4									
5-9									
10-14									
15-19									
20-24									
25-29									
30+									
<b>Education</b>									
None									
Primary									
Secondary +									
<b>Mother's FGM/C experience</b>									
No FGM/C									
Had any FGM/C									
Flesh removed									
Nicked									
Sewn closed									
Extreme form of FGM/C									
<b>Wealth index quintiles</b>									
Poorest									
Second									
Middle									
Fourth									
Richest									
<b>Ethnicity/Language/Religion</b>									
Group 1									
Group 2									
Group 3									
Total									

**\*MICS indicator 65**

\* Women reporting at least one daughter who had FGM/C (FG9 > 0). Individual forms of FGM/C include the removal of flesh from the genital area (FG11=1), the nicking of the flesh of the genital area (FG12=1) and sewing closed the genital area (FG13=1). Extreme form of FGM/C (infibulation) is defined as both the removal of flesh from the genital area AND sewing closed the genital area (FG11=1 and FG13=1).

The column for form of FGM/C not determined is for those women who respond that their daughters had been circumcised (FG9>0), but then do not respond 'yes' to any of the three following questions concerning the removal of flesh (FG11), nicking of the genital area (FG12) or whether the genital area was sewn closed (FG13)

**Table CP.9: Attitudes toward domestic violence**

Percentage of women aged 15-49 years who believe a husband is justified in beating his wife/partner in various circumstances, Country, Year

	Percentage of women aged 15-49 years who believe a husband is justified in beating his wife/partner:						Number of women aged 15-49 years
	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*	
<b>Region</b>							
Region 1							
Region 2							
Region 3							
<b>Residence</b>							
Urban							
Rural							
<b>Age</b>							
15-19							
20-24							
25-29							
30-34							
35-39							
40-44							
45-49							
<b>Marital/Union status</b>							
Currently married/in union							
Formerly married/in union							
Never married/in union							
<b>Education</b>							
None							
Primary							
Secondary +							
<b>Wealth index quintiles</b>							
Poorest							
Second							
Middle							
Fourth							
Richest							
<b>Ethnicity/Language/Religion</b>							
Group 1							
Group 2							
Group 3							
Total							

\* MICS indicator 100

\* Women that consider that a husband/partner is justified in hitting or beating his wife if: (a) She goes out without telling him (DV1A=1), (b) She neglects the children (DV1B=1), c) She argues with him (DV1C=1), (d) She refuses sex with him (DV1D=1), or (e) She burns the food (DV1E=1), (f) For any of these reasons (DV1A=1 or DV1B=1 or DV1C=1 or DV1D=1 or DV1E=1)

**Table CP.10: Child disability**

Percentage of children aged 2-9 years with disability reported by their mother or caretaker according to the type of disability, Country, Year

	Percentage of children aged 2-9 years with reported disability by type of disability										Percentage of children aged 2-9 years with at least one reported disability <sup>1</sup>		3-9 years		2 years	
	Delay in sitting, standing or walking	Difficulty seeing, either in the daytime or at night	Appears to have difficulty hearing	No under- standing of instructions	Difficulty in walking, moving arms, weakness or stiffness	Have fits, become rigid, lose consciousness	Not learning to do things like other children his/her age	Not speaking / cannot be understood in words	No speaking / cannot be understood in words	Appears mentally backward, dull, or slow	Number of children aged 2-9 years	Number of children aged 2-9 years with at least one reported disability <sup>1</sup>	Speech is not normal	Number of children aged 3-9 years	Cannot name at least one object	Number of children aged 2 years
<b>Region</b>																
Region 1																
Region 2																
Region 3																
<b>Residence</b>																
Urban																
Rural																
<b>Age of child</b>																
2-4																
5-6																
7-9																
<b>Mother's education</b>																
None																
Primary																
Secondary +																
<b>Wealth index quintiles</b>																
Poorest																
Second																
Middle																
Fourth																
Richest																
<b>Ethnicity/Language/Religion</b>																
Group 1																
Group 2																
Group 3																
Total																

**\* MICS indicator 101**

The numerators for each of the columns are calculated based on the questions in the disability module: (1) DA3=1 (2) DA4=1 (3) DA5=1 (4) DA6=2 (5) DA7=1 (6) DA8=1 (7) DA9=2 (8) DA10=2 (9) DA13=1 (10) Any of columns 1-9, (11) DA11=1 (3-9 year olds) (12) DA12=2 (2 year olds). Note that in some questions in this module a "yes" indicated a possible disability, and in others a "no" indicated a possible disability.

<sup>1</sup> Percent is based on children 3-4 years of age

<sup>2</sup> Percent is based on children 2 years of age only

**Table HA.1: Knowledge of preventing HIV transmission**

Percentage of women aged 15-49 years who know the main ways of preventing HIV transmission, Country, Year

	Percentage who know transmission can be prevented by:						Number of women
	Heard of AIDS	Having only one faithful uninfected sex partner	Using a condom every time	Abstaining from sex	Knows all three ways	Knows at least one way	
<b>Region</b>							
Region 1							
Region 2							
Region 3							
<b>Residence</b>							
Urban							
Rural							
<b>Age</b>							
15-19							
20-24							
25-29							
30-34							
35-39							
40-44							
45-49							
<b>Education</b>							
None							
Primary							
Secondary +							
<b>Wealth index quintiles</b>							
Poorest							
Second							
Middle							
Fourth							
Richest							
<b>Ethnicity/Language/Religion</b>							
Group 1							
Group 2							
Group 3							
Total							

The denominator of the columns includes all women, including those who have not heard of AIDS. Columns 1, 2, and 3 are based on the responses to HA1, HA2, HA4, and HA6, respectively.

**Table HA.2: Identifying misconceptions about HIV/AIDS**

Percentage of women aged 15-49 years who correctly identify misconceptions about HIV/AIDS, Country, Year

	Percent who know that:			Reject two most common misconceptions and know a healthy-looking person can be infected	Percent who know that:		Number of women
	HIV cannot be transmitted by:		Option 3: HIV cannot be transmitted by sharing food		Option 4: HIV can be transmitted by sharing needles		
	Option 1: Supernatural means	Option 2: Mosquito bites	A healthy looking person can be infected				
Region							
Region 1							
Region 2							
Region 3							
Residence							
Urban							
Rural							
Age							
15-19							
20-24							
25-29							
30-34							
35-39							
40-44							
45-49							
Education							
None							
Primary							
Secondary +							
Wealth index quintiles							
Poorest							
Second							
Middle							
Fourth							
Richest							
Ethnicity/Language/Religion							
Group 1							
Group 2							
Group 3							
Total							

Not all misconceptions will be included in all surveys. Those questions that are excluded should be dropped from the table.

The denominator of the columns includes all women, including those who have not heard of AIDS.

Two most common or relevant misconceptions from among the 4 options shown in the table should be moved to columns 1 and 2. Any other remaining misconceptions which are asked about should be included in columns 5 and 6.

Column 3 concerning a healthy looking person having AIDS includes all who respond positively to question HA8 (HA8=1).

The numerator for column 4 "Rejected two most common misconceptions and know a healthy looking person can be infected" includes all those who reject two most common misconceptions (so any two of the options HA3=2, HA5=2, HA7=2 or HA7A=1) and respond correctly that a healthy-looking person can be infected (HA8=1).

**Table HA.3: Comprehensive knowledge of HIV/AIDS transmission**

Percentage of women aged 15-49 years who have comprehensive knowledge of HIV/AIDS transmission, Country, Year

	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
<b>Region</b>				
Region 1				
Region 2				
Region 3				
<b>Residence</b>				
Urban				
Rural				
<b>Age</b>				
15-19				
20-24				
15-24				
25-29				
30-34				
35-39				
40-44				
45-49				
<b>Education</b>				
None				
Primary				
Secondary +				
<b>Wealth index quintiles</b>				
Poorest				
Second				
Middle				
Fourth				
Richest				
<b>Ethnicity/Language/Religion</b>				
Group 1				
Group 2				
Group 3				
Total				

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

\* This table combines information from two previous tables. The numerator of the third column includes women who know the 2 ways to prevent HIV transmission (having one faithful uninfected partner (HA2=1) and using a condom every time (HA4=1)) AND correctly identify 3 misconceptions about HIV transmission (rejecting the two most common misconceptions (two of HA3=2, HA5=2, HA7=2 or HA7A=1) and accepting that a healthy looking person can have AIDS (HA8=1)). All women are included in the denominator including those who have not heard of AIDS.

**Table 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, Country, Year

	Know AIDS can be transmitted from mother to child	Percent who know AIDS can be transmitted:			Did not know any specific way	Number of women
		During pregnancy	At delivery	Through breastmilk		
<b>Region</b>						
Region 1						
Region 2						
Region 3						
<b>Residence</b>						
Urban						
Rural						
<b>Age</b>						
15-19						
20-24						
25-29						
30-34						
35-39						
40-44						
45-49						
<b>Education</b>						
None						
Primary						
Secondary +						
<b>Wealth index quintiles</b>						
Poorest						
Second						
Middle						
Fourth						
Richest						
<b>Ethnicity/Language/Religion</b>						
Group 1						
Group 2						
Group 3						
Total						

**\* MICS indicator 89**

\* The denominator includes all women, even those who have not heard of AIDS. In the first column, the numerator includes women who answered 'yes' when asked if they think AIDS can be transmitted from mother to child in any of the three specific ways (HA9A=1 or HA9B=1 or HA9C=1). The MICS indicator includes in the numerator women who answered 'yes' to all three ways (HA9A=1 and HA9B=1 and HA9C=1). The column labeled 'Did not know any specific way' should include women who did not respond 'yes' to any specific way (including those who responded "Don't know") (HA9A<>1 and HA9B<>1 and HA9C<>1).



**Table 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, Country, Year

	Percent 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
<b>Region</b>							
Region 1							
Region 2							
Region 3							
<b>Residence</b>							
Urban							
Rural							
<b>Age</b>							
15-19							
20-24							
25-29							
30-34							
35-39							
40-44							
45-49							
<b>Education</b>							
None							
Primary							
Secondary +							
<b>Wealth index quintiles</b>							
Poorest							
Second							
Middle							
Fourth							
Richest							
<b>Ethnicity/Language/Religion</b>							
Group 1							
Group 2							
Group 3							
Total							

**\* MICS indicator 86**

\* Those expressing acceptance on the four questions addressing discriminatory statements are those responding 'yes' to HA10, HA11 and HA13 and 'no' to HA12 (HA10=1 and HA11=1 and HA12=2 and HA13=1). For each of the individual columns, the tests should be as follows: (1) HA13=2 (2) HA12=1 (3) HA10=2 (4) HA11=2. The column for those agreeing with at least one discriminatory statement includes those in at least one of the first four columns.

The denominator only includes women who have heard of AIDS.

**Table 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, Country, Year

	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
<b>Region</b>					
Region 1					
Region 2					
Region 3					
<b>Residence</b>					
Urban					
Rural					
<b>Age</b>					
15-19					
20-24					
25-29					
30-34					
35-39					
40-44					
45-49					
<b>Education</b>					
None					
Primary					
Secondary +					
<b>Wealth index quintiles</b>					
Poorest					
Second					
Middle					
Fourth					
Richest					
<b>Ethnicity/Language/Religion</b>					
Group 1					
Group 2					
Group 3					
Total					

**\* MICS indicator 87**

\* Women who know of a place to get tested for HIV includes those women who have already been tested, including those tested during antenatal care (HA18=1 or HA15=1 or MN5=1).

**\*\* MICS indicator 88**

\*\* Women who have been tested for HIV includes those tested during antenatal care (HA15=1 or MN5=1)

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 (HA15=1 or MN5=1) and the numerator consists of women who have been told the results (HA16=1 or MN6=1).

**Table HA.7: HIV testing and counselling 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 counselling with their antenatal care, Country, Year

	Percent of women who:				Number of women who gave birth in the 2 years preceding the survey
	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**	
<b>Region</b>					
Region 1					
Region 2					
Region 3					
<b>Residence</b>					
Urban					
Rural					
<b>Age</b>					
15-19					
20-24					
25-29					
30-34					
35-49					
<b>Education</b>					
None					
Primary					
Secondary +					
<b>Wealth index quintiles</b>					
Poorest					
Second					
Middle					
Fourth					
Richest					
<b>Ethnicity/Language/Religion</b>					
Group 1					
Group 2					
Group 3					
Total					

The numerator in column 1 is all women who received antenatal care for the last pregnancy (MN2 = A, B or C).

**\* MICS indicator 90**

\* The numerator for column 2 is the number of women who received counselling during the last pregnancy in the two years preceding the survey (MN4=1).

The numerator for column 3 is the number of women who received an HIV test during antenatal care (MN5=1).

**\*\* MICS indicator 91**

The numerator for column 4 is the number of women who received the results of an HIV test (MN6=1) during antenatal care for the last live birth in the two years preceding the survey.

**Table HA.8: Sexual behaviour that increases risk of HIV infection**

Percentage of young women aged 15-19 years who had sex before age 15, percentage of young women aged 20-24 who had sex before age 18, and percentage of young women aged 15-24 who had sex with a man 10 or more years older, Country, Year

	Percentage of women aged 15-19 who had sex before age 15*	Number of women aged 15-19 years	Percentage of women aged 20-24 who had sex before age 18	Number of women aged 20-24 years	Percentage who had sex in the 12 months preceding the survey with a man 10 or more years older**	Number of women who had sex in the 12 months preceding the survey
<b>Region</b>						
Region 1						
Region 2						
Region 3						
<b>Residence</b>						
Urban						
Rural						
<b>Age</b>						
15-19			na	na		
20-24	na	na				
<b>Education</b>						
None						
Primary						
Secondary +						
<b>Wealth index quintiles</b>						
Poorest						
Second						
Middle						
Fourth						
Richest						
<b>Ethnicity/Language/Religion</b>						
Group 1						
Group 2						
Group 3						
Total						

**\* MICS indicator 84**

\* Women aged 15-19 who had sex before age 15 is calculated based on responses to SB1 (SB1<>0 AND SB1<15). If the response was that the first time she had sex was when she started living with her first husband or partner, then her age at first sex is calculated from the date of first union or age at first union given in MA6 and MA8 (SB1=95 AND ((MA6-WM8)<15 OR MA8<15)). These calculations should be done with Century Month Codes (CMC). Percentage of women aged 20-24 who had sex before age 18 should be calculated similarly, but only for women aged 20-24

**\*\* MICS indicator 92**

\*\* This indicator is calculated only for women who had sex in the 12 months preceding the survey (SB1<>0 and SB2U<>4). The age difference between sexual partners is calculated using the age of the spouse or cohabiting partner (SB4=1) if that is the last partner (MA2) or with the age of the partner as reported in SB5 (SB4>1). If the respondent had more than one partner in the 12 months preceding the survey, responses relating to this partner are also used (SB8, SB9). The age of the partner is calculated as being 10 or more years older than the woman if any of the following three conditions is true:

- if (SB4=1 or SB8=1) and MA2<98 and (MA2-WM9)>=10
- if SB4>1 and SB5<98 and (SB5-WM9)>=10
- if SB8>1 and SB9<98 and (SB9-WM9)>=10

**Table HA.9: Condom use at last high-risk sex**

Percentage of young women aged 15-24 years who had high risk sex in the previous year and who used a condom at last high risk sex, Country, Year

	Ever had sex	Had sex in the last 12 months	Had sex with more than one partner in last 12 months	Number of women aged 15-24 years	Percent who had sex with non-marital, non-cohabiting partner*	Number of women aged 15-24 years who had sex in last 12 months	Percent who used a condom at last sex with a non-marital, non-cohabiting partner**	Number of women aged 15-24 years who had sex in last 12 months with a non-marital, non-cohabiting partner
<b>Region</b>								
Region 1								
Region 2								
Region 3								
<b>Residence</b>								
Urban								
Rural								
<b>Age</b>								
15-19								
20-24								
<b>Education</b>								
None								
Primary								
Secondary +								
<b>Wealth index quintiles</b>								
Poorest								
Second								
Middle								
Fourth								
Richest								
<b>Ethnicity/Language/Religion</b>								
Group 1								
Group 2								
Group 3								
Total								

\* MICS indicator 85

\*\* MICS indicator 83; MDG indicator 19a

The numerators and denominators are as follows:

- 1) Numerator - Women who have ever had sex (SB1<>0). Denominator - column 4
- 2) Numerator - Women who had sex in the last 12 months (SB1<>0 and SB2U<4). Denominator - column 4
- 3) Numerator - Women who had more than one partner SB6=1. Denominator - column 4
- 5) Numerator - Women who had sex in the last 12 months with a non-marital, non-cohabiting partner (SB4>1 or SB8>1). Denominator - column 6
- 7) Numerator - Women who used a condom at last sex with a non-marital, non-cohabiting partner ((SB4>1 and SB3=1) or (SB4=1 and SB8>1 and SB7=1)). Denominator - column 8

Note: Check the sample sizes for each column to ensure that there are sufficient numbers of cases to calculate the indicator.

**Table HA.10: Children's living arrangements and orphanhood**

Percent distribution of children aged 0-17 years according to living arrangements, percentage of children aged 0-17 years in households not living with a biological parent and percentage of children who are orphans, Country, Year

	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
	Living with both parents	Only father alive	Only mother alive	Both are alive	Both are dead	Father alive	Father dead	Mother alive	Mother dead					
<b>Sex</b>														
Male											100.0			
Female											100.0			
<b>Region</b>														
Region 1											100.0			
Region 2											100.0			
Region 3											100.0			
<b>Residence</b>														
Urban											100.0			
Rural											100.0			
<b>Age</b>														
0-4 years											100.0			
5-9 years											100.0			
10-14 years											100.0			
15-17 years											100.0			
<b>Wealth index quintiles</b>														
Poorest											100.0			
Second											100.0			
Middle											100.0			
Fourth											100.0			
Richest											100.0			
<b>Ethnicity/Language/Religion</b>														
Group 1											100.0			
Group 2											100.0			
Group 3											100.0			
Total											100.0			

**\* MICS indicator 78**

\* Children who are not living with at least one biological parent, either because the parents live elsewhere or because the parents are dead (HL9=2 or HL10=00) and (HL11=2 or HL12=00)

**\*\* MICS indicator 75**

\*\* Children for whom one or both biological parents are dead (HL9=2 or HL11=2).

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

**Table HA.11: Prevalence of orphanhood and vulnerability among children**

Percentage of children aged 0-17 years who are orphaned or vulnerable due to AIDS, Country, Year

	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
<b>Sex</b>							
Male							
Female							
<b>Region</b>							
Region 1							
Region 2							
Region 3							
<b>Residence</b>							
Urban							
Rural							
<b>Age</b>							
0-4 years							
5-9 years							
10-14 years							
15-17 years							
<b>Wealth index quintiles</b>							
Poorest							
Second							
Middle							
Fourth							
Richest							
<b>Ethnicity/ Language/ Religion</b>							
Group 1							
Group 2							
Group 3							
Total							

**\* MICS indicator 76**

\* See (4) below

**\*\* MICS indicator 75**

\*\* See (5) below.

The columns of the table are produced as follows:

- 1) Either parent has been chronically ill for 3 of the 12 months preceding the survey (HL10A=1 or HL12A=1 for the specific child)
- 2) Adult death in the household after a chronic illness of 3 of the 12 months preceding the survey (OV4=1)
- 3) Any adult in the household has been sick for 3 of the 12 months preceding the survey (HL5=15-59 and HL8A=1 for any household member).
- 4) A vulnerable child is defined as a child who lives in a household where any of the preceding 3 conditions is true.
- 5) A child is an orphan if one or both of his/her biological parents is dead (HL9=2 or HL11=2 for the specific child).
- 6) Orphaned or vulnerable children are those defined in columns 4 or 5.
- 7) Total number of children aged 0-17 years as enumerated in the household listing.

Note: Drop background characteristics if sample sizes are too small.

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

**Table HA.12: School attendance of orphaned and vulnerable children**

School attendance of children aged 10-14 years by orphanhood and vulnerability due to AIDS, Country, Year

	Percent of children whose mother and father have died	School attendance rate of children whose mother and father have died	Percent 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 school attendance ratio*	Percent of children who are orphaned or vulnerable	School attendance of children who are orphaned or vulnerable	Percent of children who are <u>not</u> orphaned or vulnerable	School attendance of children who are <u>not</u> orphaned or vulnerable	OVC vs non-OVC school attendance ratio	Total number of children aged 10-14 years
<b>Sex</b>											
Male											
Female											
<b>Region</b>											
Region 1											
Region 2											
Region 3											
<b>Residence</b>											
Urban											
Rural											
<b>Wealth index quintiles</b>											
Poorest											
Second											
Middle											
Fourth											
Richest											
Total											

\* MICS indicator 77; MDG indicator 20

\* See (5) below

The columns are calculated as follows:

- 1) Children whose mother and father have died (HL9=2 and HL11=2)
- 2) School attendance for children whose parents have died (HL9=2 and HL11=2 and ED4=1)
- 3) Children whose parents are both alive and the child is living with at least one of them (HL9=1 and HL11=1 and (HL10>0 or HL12>0))
- 4) School attendance for children whose parents are both alive and who lives with at least one of them (HL9=1 and HL11=1 and (HL10>0 or HL12>0) and ED4=1)
- 5) The orphan to non-orphan school attendance ratio is calculated by dividing column (2) by column (4).
- 6) Children who are orphaned or vulnerable are defined as in column (6) of table HA.11.
- 7) School attendance rate for children orphaned or vulnerable (ED4=1 for children included in column (6))
- 8) Children who are not orphaned or vulnerable are all children except those defined in column (6).
- 9) School attendance rate for children who are not orphaned or vulnerable (ED4=1 for children included in column 8)
- 10) The orphaned and vulnerable children (OVC) to non-orphaned and vulnerable (non-OVC) school attendance ratio is calculated by dividing column (7) by column (9).

Note: Check the sample sizes for each column to ensure that they are sufficiently large to calculate the indicator.

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.



**Table 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, Country, Year

	Percent of orphans and vulnerable children whose households received:							Number of children orphaned or vulnerable aged 0-17 years
	Medical support (in last 12 months)	Emotional and psychosocial support (in last 3 months)	Social/ material support (in last 3 months)	Educational support (in last 12 months)	Any support*	All types of support	No support at all	
<b>Sex</b>								
Male								
Female								
<b>Region</b>								
Region 1								
Region 2								
Region 3								
<b>Residence</b>								
Urban								
Rural								
<b>Age</b>								
0-4 years				na				
5-9 years								
10-14 years								
15-17 years								
<b>Wealth index quintiles</b>								
Poorest								
Second								
Middle								
Fourth								
Richest								
<b>Ethnicity/Language/Religion</b>								
Group 1								
Group 2								
Group 3								
Total								

**\* MICS indicator 81**

\* Support for children orphaned and made vulnerable by AIDS is defined based on the preceding 4 columns:

Each of the columns of the table are calculated as follows:

- 1) Medical support within the past 12 months, OV10=1
- 2) Emotional support within the past 3 months, OV12=1
- 3) Material or social support, within the past 3 months, OV14=1 or OV16=1
- 4) School-related assistance within the past 12 months, OV18=1
- 5) Any support is based on any of the 4 types of support for children aged 5-17, and on 3 types of support (excluding educational support) for children aged 0-4 years.
- 6) All type of support is based on all 4 types of support for children aged 5-17, and on 3 types of support (excluding educational support) for children aged 0-4 years.
- 7) No support is based on children in households receiving none of the 4 types of support.

The denominator for all columns is the number of children aged 0-17 years orphaned and made vulnerable by AIDS as defined in column (6) of table HA.11.

Note: Drop background characteristics if sample sizes are too small.

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.

**Table HA.14: Malnutrition among orphans and vulnerable children**

Percent of children aged 0-4 years who are moderately or severely underweight, stunted or wasted by orphanhood and vulnerability due to AIDS, Country, Year

	Percentage of children aged 0-4 years who are moderately or severely:			Number of children aged 0-4 years
	Underweight	Stunted	Wasted	
<b>Status</b>				
Orphaned				
Vulnerable				
Orphaned or vulnerable				
Not orphaned or vulnerable				
Total				
Ratio OVC to non-OVC*				-

**\* MICS indicator 79**

\* The ratio of orphaned and vulnerable children (OVC -- row 3) to non-orphaned and vulnerable children (non-OVC -- row 4) is calculated by dividing the percentage of orphaned or vulnerable children who are underweight, stunted or wasted by the percentage of non-orphaned or vulnerable children who are underweight, stunted or wasted, respectively.

Note: Review the sample sizes for the orphaned or vulnerable children category to ensure sufficient sample size to produce a reliable estimate.

The orphaned or vulnerable child status is calculated as defined in column (6) of table HA.11

The definitions of moderately or severely underweight, stunted or wasted are as in table NU.1

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.

An orphan is a child aged 0-17 years who has lost one or both parents. Children who are both orphaned and vulnerable will appear in the vulnerable column.

Vulnerable children due to AIDS includes children 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.

**Table HA.15: Sexual behaviour among young women by orphanhood and vulnerability status due to AIDS**

Percentage of young women aged 15-17 years who had sex before age 15 by vulnerability status and survival status of parents, Country, Year

	Percentage of young women aged 15-17 years who had sex before age 15	Number of young women aged 15-17 years
<b>Status</b>		
Orphaned		
Vulnerable		
Orphaned or vulnerable		
Not orphaned or vulnerable		
Total		
Ratio OVC to non-OVC*		-

**\* MICS indicator 80**

\* The ratio of orphaned and vulnerable children (OVC -- row 3) to non-orphaned and vulnerable (non-OVC -- row 4) is calculated by dividing the percentage of orphaned or vulnerable children who had sex before age 15 by the percentage of non-orphaned or vulnerable children who had sex before age 15.

Note: Review the sample sizes for the orphaned or vulnerable children category to ensure sufficient sample size to produce a reliable estimate.

The orphaned or vulnerable child status is calculated as defined in column (6) of table HA.11

Children 15-17 years of age who had sex before age 15 is calculated as defined in column (1) of table HA.8

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

An orphan is a child aged 0-17 years who has lost one or both parents. Children who are both orphaned and vulnerable will appear in the vulnerable column.

Vulnerable children due to AIDS includes children 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.