MANUAL

FOR

INTERVIEWERS

Nigeria, July 2015

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I. INTRODUCTION

The 2015 Nigeria National Nutrition and Health Survey (NNHS) using Standardized Monitoring and Assessment in Relief and Transition (SMART) methods is a second round, national sample survey designed to provide information for monitoring and evaluation (M&E) of health and nutrition programs in the country. The survey will involve selecting a representative sample of households randomly, measuring children under five years of age, and interviewing women between 15 and 49 years of age who live in the selected households. These respondents will be asked questions about their household members, information about child health and use of treatment for common childhood illnesses, their use of mosquito nets, mothers access to antenatal care and preventive treatment during pregnancy, coverage rate of Maternal Newborn and Child Health Week and other questions that will be helpful to policy makers and administrators in monitoring key health and nutrition programs.

You are being trained as an interviewer for the Nigeria NNHS 2015 survey. After the training course, which will take about 1 week to complete, selected interviewers will be working in teams, going to different parts of the country to interview households and women in these households. Depending on the areas assigned to your team and on how well you perform, you may be working on the SMART 2015 survey for up to 2 months on the area that you will be assigned after the training. However, we have recruited more interviewers to participate in the training course than are needed to do the work, and at the end of the course, we will be selecting the best qualified among you to work as interviewers. Those not selected may be retained as stand by to be called in between surveys as alternates.

During the training course, you will listen to lectures about how to fill in the questionnaires correctly and demonstrate on how to do measurements. You will also conduct practice interviews with other trainees and with strangers during the pilot test. You will be given periodic individual and group exercises and be trained on how to use tables for data collection in the field.

Before any field data gathering, it is important for all people involved to be familiar with all set goals and expected results. It is also indispensable to master the definitions of the main concepts, as well as the way to fill in the questionnaire on tablet. This manual is created to help survey teams to effectively undertake field work. Thus, it represents their guide for training and reference in the field. You should study this manual and learn its contents since this will reduce the amount of time needed for training and will improve your chances of being selected as an interviewer.

II. OBJECTIVES

The objectives of the survey are:

- Determine the prevalence of acute malnutrition among children 6 to 59 months of age using WHZ, MUAC and bilateral oedema,
- Determine the prevalence of wasting, chronic malnutrition, underweight and overweight among children 0 to 59 months of age,
- Determine the prevalence of acute malnutrition among women 15 to 49 years of age using MUAC,
- To assess the prevalence of diarrhoea and use of ORS and zinc among children under-five years two weeks preceding the survey,
- Estimate coverage of vitamin A supplementation and deworming among children 6 to 59 and 12 to 59 months of age respectively within the last six months,
- Determine the coverage of DPT3/Penta3 and measles immunization among children 12-23 months of age,
- Determine the proportion of under five children with Acute Respiratory Infection (ARI) symptoms and proportion of children with fever received treatment,
- Determine the ownership and universal access of mosquito nets, and utilization of mosquito nets by children 0-59 months,
- Assess the practice of skilled birth attendants, contraceptive prevalence rate and antenatal care coverage among women 15 to 49 years,
- Determine the proportion of women 15 – 49 years received HIV/AIDS testing and intermittent preventive treatment during antenatal care, and

- Determine the proportion of households reached by MNCHW in the last six months and its mode of delivery.

III. SURVEY ORGANIZATION

The NNHS 2015 is a comprehensive survey involving several agencies and many individuals. It is being conducted at the request of the government of Nigeria which has a primary role in the planning for the survey and in the analysis and dissemination of the survey results. The National Bureau of Statistics (NBS) will serve as the implementing agency for the NNHS 2015. The NBS will take responsibility for operational matters including planning and conducting fieldwork, data, analysis and organizing the writing and distribution of reports.

Rules and Regulations

All persons involved with the NNHS survey must:

- Be concerned the safety of one's own self, that of the team and all persons in the interviewed households, especially the children.
- Participate and pay close attention during the training.
- Not talk on or use the cell phone during the training.
- Demonstrate clear understanding and capacity to complete the tasks defined in the training and field work activities.
- Complete all exercises and/or tests given by the survey coordinators
- Demonstrate honest and transparent working habits.
- Work carefully to collect precise data that represent the current conditions of the states
- Work together in teams to ensure that the daily assignments are completed
- Never falsify information or accept false information during the data collection or face immediate dismissal and never be employed in survey work in the future.

All people working are also responsible to follow the rules of the government and all implementing agencies involved in the surveys.

Summary of Activities

Interviewers will be trained and tested all together at the training site. Teams will be formed of team leaders and anthropometrists (measurer and assistant measurer). The team leaders will receive a list of sampled enumeration areas (EA). The schedule of EA visit and their dates will be decided beforehand at state level together with state level coordinators, supervisors and survey teams. Communications about the survey will be sent to the states before the survey begins to ensure that respondents are available when the interview team visits the area.

Each team will complete interviews of 22 households per day. Team members will weigh and measure children and complete the questionnaires. The team leader will be responsible to enter data into the tablet, make all correction before leaves the field, save and send the data. The data will automatically be stored in the web-based database where the survey coordinators have access to and provide feedbacks on the course of data collection on daily basis.

All children who are identified with severe acute malnutrition, that is a MUAC <115 mm, or bilateral oedema will be referred or transported to an appropriate outpatient therapeutic program (OTP) for immediate and appropriate treatment. Lists of OPT sites will be provided to survey teams by the survey coordinator.

Job Description for Survey Teams

Each survey team should be composed of at least 3 people. Including women in survey teams is highly recommended since they are usually more comfortable interacting with children and interviewing women, particularly of pregnancy and contraception related subjects. In this survey it is recommended to have at least 67% of women as men are not allowed to enter households in certain circumstance in some parts of the country. It is also emphasized that all women should wear culturally appropriate clothes in order not to be refused to undertake the survey by household members. Generally, two surveyors are involved in anthropometric measurements while another one,

the team leader, records the data in the tablet. However, it is strongly suggested that each team member knows how to accomplish the tasks of his team mates, because unexpected events can happen and a change in the staff may be required.

All team members must have the following qualifications:

- They should be able to write, read and speak English and the local languages of the areas where the survey will be conducted.
- They should have sufficient level of education, as they will need to read and write fluently and count accurately.
- They should be physically fit to walk long distances and carry the measuring equipments.

Roles and Responsibilities of the interviewers' team

Interviewers play a central role in the collection of data and the ultimate outcome of the exercise depends on how they conduct the interviews. Success, therefore, depends on the quality of the interviewers' work. It is, therefore, important that you are consistent in the way you ask the questions to the respondent. In case a response is not clear, you should probe further.

Roles and Responsibilities of the Team Leader

- Ensure the high quality household selection and data collection by having read and understood all details of the interviewer's manual;
- Ensure that the anthropometry tools are tested daily and the results are recorded on the standardization form before starting fieldwork;
- Identify all the eligible respondents;
- Ensure that tablets are charged fully and all other necessary materials are ready and available before starting fieldwork;

- Before beginning fieldwork in a cluster, present the team to the village chief and explain the objectives and procedures of the survey to ensure support;
- Update the cluster/enumeration area using listing of all households within the cluster with village representative;
- Know the local Outpatient Therapeutic Programs (OTP). Complete referral forms for children with Severe Acute Malnutrition (SAM);
- Ensure missing data or implausible measures are recollected to secure high data quality and ensures that houses with missing data are revisited before leaving the field the same day;
- Make sure that the data collected are send on timely manner;
- Contact the supervision teams for support when necessary;
- Report and replace any broken or non-functioning equipment;
- Properly use a local events calendar to estimate the age;
- Manages time allocated to measurements, breaks and lunch; and
- Assisting the measurer while performing the measurements.

Role and Responsibilities of Measurers

Skills and required abilities:

To be able to read, write and count; know the area to survey; be reliable and friendly.

Tasks:

- Understand and implement the methods detailed in the interviewer guide.
- Test the anthropometry tools daily and record the results on the standardization form before starting fieldwork.

- Make and record accurate measures of height/length, weight and middle upper arm circumference (MUAC) of women and children.
- Assess the presence of bilateral oedema.
- Identify cases of severe acute malnutrition and ensure referral to treatment centers.
- Protect all equipment (especially the height board and scales) from damage.
- Maintain a respectful work environment by working together carefully as a team.

During the training, all persons will be assigned an identification number. The survey coordinators should make a list of the names of all trainees, contact details, and survey experience. From this list, ID numbers can be assigned. The list with ID numbers should be posted in a public area during the training. The ID number will be used in the testing and standardization procedures.

Not all persons in the training will be hired to conduct the data collection. During the survey training, more persons than necessary are trained to ensure that there are an adequate number of interviewers to complete the field work. Those persons who do not demonstrate adequate knowledge or skills to complete the survey work will not be hired. Some persons who are qualified also may not be hired, but may be asked to join teams after the launch of the survey if there are drop-outs of the interviewer teams.

IV. SURVEY METHODS

Target Population

All children under five years of age in selected households will be measured for height and weight, and all women aged 15 to 49 years and children 6 to 59 months will be measured for MUAC. These two populations represent both the most vulnerable segment of the population and the population whose improved health and nutrition benefits all. For the household composition and household level survey, all selected households, even those with no women or children will be included in the data collection.

Sample Selection of Clusters and Households

The sample population is designed to be representative at the state level. The survey population will be selected randomly and in two steps.

Step1.Cluster Selection:

The survey coordination with support from National Population Commission (NPopC) will randomly choose the clusters or enumeration areas in the survey areas.

Step2. Household Selection:

The team leader is responsible for the random selection of households in the cluster using systematic random sampling. The method is described below in the manual.

Before starting fieldwork, each team will receive a list of assigned clusters within state with respective estimated population size and/or households. At village/cluster level, the team leader is expected to update the number of households by listing all the households within the selected village/cluster with village leader before starting sampling. Each cluster or enumeration area will have a unique number. Often enumeration areas will have a long ID number (8 digits or more). In these cases, it is decided

to start from 0001 to 1200, starting from Adamawa to Zamfara alphabetically. The survey coordinator will provide the list of all selected EA to the supervisors.

Define household

> ***A household is defined as "A person or a group of persons, related or unrelated, who live together and share a common source of food and livelihood, and recognize one person as a head."***

Household Selection using Systematic Random Sampling

Before starting household selection, a team leader must complete the household listing within the selected cluster with the support of a village leader. This exercise should not take more than 20 to 30 minutes.

Once the household listing is completed, the households are selected following a systematic random sampling method. After verifying that all materials are ready for the selection, the team leader will select the household sample only once.

To make a systematic random sample, the team leader will calculate a ***sampling interval (S).*** The number of households in the cluster is divided by the sample household to be selected in the cluster (22 households). The number calculated will be used as the number of households to skip over when selecting households in the cluster.

For example, there are 120 households in the cluster and 22 households are to be interviewed, the sampling interval will be S = 120/22 =5.4. For the sample interval, simply truncate the digits, leaving the whole number 5 i.e. to choose the 1st HH to visit, you select a number randomly between 1 and the sampling interval that is rounded to the lowest level (e.g. S= 5.4; so, it should be rounded to 5; and the 1st HH will be randomly chosen between 1 and 5 using random number table).

To begin the selection of households within the cluster, start at the beginning of the path through the cluster. Select a random number between 1 and the sampling interval (5), for example 4. This is called a ***random start***. Count from the first household of the cluster to the fourth household. Interview the fourth household. To select the next household add the sampling interval (5.4) to the number of the last selected household (4) equaling 9.4. Identify and interview the 9th household from listing. Continue until all 22 households are identified and interviewed. Household to survey should be rounded (e.g. if calculation led to 9.8; so, we round to 10; if calculation led to 9.4, so, we round to 9; if the calculation led to 9.5, so we round to 10).

If the team leader comes to a compound with several households, the households should be numbered in clockwise order starting from the main entrance. After all the households in the concession are numbered, then the team leader can follow the sampling interval to select the following household.

Important points for household selection

- The team leader has to follow the sample methods for household selection. If the method is not followed the data cannot be considered representative of the area.
- Even if households are far away, all selected households must be visited for an interview.
- As per the methods, there should be ***NO REPLACEMENT HOUSEHOLDS***.
- **Empty houses** are not considered as households.
- Occasionally entire villages move from their households to temporary shelters on the edge of their fields. If this occurs and the temporary shelters are accessible, then the interviewer team should travel to the fields and complete the interviews with the selected households.
- Communication about the survey in the area before the arrival of the interviewer team can greatly facilitate the availability of household members for the interview.

Communication Plan

To ensure that all persons involved are aware of the timing of the survey and household members can be found at home during the days when the interviewer team visits the cluster list of the selected villages/clusters will be sent to state level coordinators though the implementing agency, National Bureau of Statistics (NBS). Alerting village chiefs is critical in order to ensure cooperation and to find respondents at home for the interview.

V. TOOLS AND MATERIALS FOR DATA COLLECTION

Every team should have all of the following materials for data collection activities:

- Cluster assignment form;
- A tablet with inbuilt questionnaire for standardization and data collection
- Interviewer guide for reference on survey implementation;
- Chalk for marking selected households;
- A clipboard;
- Complete calendar of local events for each month;
- Demonstration materials (vitamin A capsules, Mebendazole tablets, ORS, iron tablet/syrup, zinc, contraceptive pills etc….);
- One height board per anthropometry team of two persons;
- Small towel for measuring child length on height board;
- A metal with 110 cm marked at 87 cm for deciding the measurement positions of children and standardization of the height board;
- Digital scale with extra batteries;
- A sufficient number of measuring strips for child and women's MUAC; and
- Identification and any necessary letters of authorization.

VI. CONDUCTING AN INTERVIEW

Successful interviewing is a skill and should not be treated as a mechanical process. Each interview is a new source of information, so make it interesting and pleasant. The art of interviewing develops with practice but there are certain basic principles that are followed by every successful interviewer. In this section you will find a number of general guidelines on how to build rapport with a respondent and conduct a successful interview.

VI.I. Gain rapport with the respondent

As an interviewer, your first responsibility is to establish a good rapport with a respondent. At the beginning of an interview, you and the respondent are strangers to each other. The respondent's first impression of you will influence their willingness to cooperate with the survey. Be sure that your manner is friendly as you introduce yourself.

Introduce yourself by name and show your identification. Explain the survey and why you want to do interview 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.

Make a good first impression

When first approaching the respondent, do your best to make the respondent feel at ease. Open the interview with a smile and greeting and then proceed with your introduction.

Be sure that your appearance is neat and your manner friendly as you introduce yourself. Carry a visible identification, the more official and formal looking is the more seriously you will be taken. It also helps to use uniform like clothing that links the field worker with the health system.

If and when necessary, tell the respondent that the survey will help the development of plans for children and women and that his/her cooperation will be highly appreciated.

Obtain respondent(s) consent to be interviewed.

You must obtain a respondent's informed consent for participation in the survey before you begin an interview. Special statements are included at the beginning of the Household Questionnaire. The statements explain the purpose of the survey. They assure a respondent that participation in the survey is completely voluntary and that it is their right to refuse to answer any questions or stop the interview at any point. Be sure to read the informed consent statement exactly as it is written before asking a respondent to participate in a household or individual interview

Always have a positive approach

Never adopt an apologetic manner, and do not use words, as "Are you too busy?" "Would you spare a few minutes?" or "Would you mind answering some questions?" 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 for a few moments".

Stress confidentiality of responses when necessary

If the respondent is hesitant about responding to the interview or asks what the data will be used for, explain that the information you collect will remain confidential, no individual names will be used for any purpose after the interview and that all information will be pooled together and depersonalized when writing the report. Use a language understandable by the respondent to get this message across.

Probe for adequate responses

You should phrase the question as it is in the questionnaire. If you realize that an answer is not consistent with other responses, then you should seek clarification through asking indirect questions

or some additional questions so as to obtain a complete answer to the original question. This process is called probing.

Ensure the meaning of the original question is not changed. Pause and wait if the respondent is trying to remember difficult items.

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. However, never point out to the respondents inconsistencies that you may have identified in a manner that may be understood as if you are testing the respondent's honesty or integrity.

Answer any questions from the respondent frankly

Before agreeing to be interviewed, the respondent may ask you some questions about the survey or how he/she was selected to be interviewed. Be direct and pleasant when you answer. However, if she asks questions about medical or other issues, tell her that you will try to answer her questions after you have finished the interview. And, if the respondent insists tell them that you are not the one who makes decision and all the decisions are to be made following the analysis of the survey. **Do not promise.**

Interview the respondent alone

The presence of a third person during an interview can prevent you from getting frank, honest answers from a respondent, women age 15 to 49 years in this survey. It is, therefore, very important that the individual interview be conducted privately and that all questions be answered by the respondent.

If other people are present, explain to the respondent that some of the questions are private and ask to interview the person in the best place for talking alone. Sometimes asking for privacy will make

others more curious, so they will want to listen; you will have to be creative. Establishing privacy from the beginning will allow the respondent to be more attentive to your questions.

If it is impossible to get privacy, you may have to carry out the interview with the other people present. However, in such circumstances, it is important that you remember that:

- If there is more than one eligible respondent in the household, you must not interview one in the presence of the other
- Extra effort should be made to gain privacy if the other person is of the opposite sex, particularly the husband.

In all cases where other individuals are present, try to separate yourself and the respondent from the others as much as possible.

VI.II. Tips for Successful Interview

Be neutral throughout the Interview

Most people are polite and will tend to give answers that they think you want to hear. It is therefore very important that you remain absolutely neutral as you ask the questions. Never give the impression by your look or by the tone of your voice to the respondent that she has given the "Right" or "Wrong" answer to the question. Never appear to approve or disapprove of any of the respondent's replies.

If the respondent gives an ambiguous answer, try to probe in a neutral way, asking questions such as: "Can you explain a little more?", "I did not quite hear you, could you please tell me again?", "There is no hurry. Take a moment to think about it".

Never suggest answers to the respondent

If a respondent's answer is not relevant to a question, do not probe her by saying something like "I suppose you mean that ..... Is that right?" In many cases, she will agree with your interpretation of her

answer, even when that is not what she meant. Rather, you should probe in such a manner that the respondent herself comes up with the relevant answer.

Handle hesitant respondents tactfully

There may be situations where the respondent simply says "I don't know", gives an irrelevant answer, acts very bored or detached, contradicts something he/she has already said, or refuses to answer the question. In these cases you must try to re-interest him/her in the conversation. If the respondent refuses, skip to the next question and proceed as if nothing had happened and note this in the observation at the end of the questionnaire. If you have successfully completed the interview, you may try to obtain the missing information at the end, but do not push too hard for an answer. Remember, the respondent cannot be forced to give an answer.

Do not form expectations

You must not form or express any opinions about the ability and knowledge of the respondent because this can influence the interview. The respondent, believing that you are different from her, may be afraid or mistrustful. You should always behave and speak in such a way that she is put at ease and is comfortable talking to you.

VII. SURVEY IMPLEMENTATION

This page gives an overview of the details that the interviewer team must complete in their preparations before data collection, during field work and at the end of the day of field work. More in-depth explanations of how to make correct height, weight and MUAC measures, correct age estimation, how to complete the household composition and other questionnaire are given after this introduction.

Daily preparation before data collection

- Ensure that the tablet (s) is/are fully charged in the evening before the day of data collection.
- Test the scale with a standard weight, the MUAC tapes with a standard plastic tube, and the height boards with a standard metal. Record the results on the standardization form.
- Verify that the team has all necessary equipment and materials.
- Ensure all the preparations with the car and driver are completed in the evening before the day of data collection. Don't lose valuable time fuelling cars and/or repairing tires during day light hours. The itinerary for each day should be discussed with the team to ensure enough time is provided for data collection.

What to do when arriving in the cluster

- Meet with the village chief or other local representative and explain the objectives of the survey.
- Explain that all children found with Severe Acute Malnutrition will be referred to the nearest functioning outpatient therapeutic centre, if available.
- Present the cluster's household information and complete the list of all households within the selected cluster with the help of the representative from the EA.
- If the cluster has more than 200 households, draw a rough map and divide the cluster into roughly equal segments and randomly select one segment, and begin household selection in the randomly selected segment.

What to do in the selected household

- The team leader will indicate the selected household. The interviewer will record the household number on the questionnaire.
- Identify the mother or primary caretaker of the children in the household for interview. If there is no mother or child, identify the head of the household or another appropriate adult to serve as respondent.
- Briefly explain the purpose of the visit and request consent to continue. If the respondent gives consent, confirm exactly what will be considered as a household for the purpose of the survey.
- If there are children under five years of age in the household, request any vaccination cards, health cards, birth registration or identification for the young children in the household.
- Measure the height, weight and MUAC of all children less than five years of age. Check the children for bilateral oedema. Measure the MUAC of all women 15 to 49 years of age and respectfully ask the pregnancy status of the women and subsequent questions
- Carefully record the results, verifying with and between the measurer and assistant as you go along (see section on anthropometric measurement below for further instructions). After the measurement of each child, collect children information.
- Request the vaccination card and review. If the vitamin A supplementation and/or deworming and vaccination have been recorded, enter the code for the corresponding response given.
- For vitamin A, show the respondent the vitamin A samples (red and blue) and ask if the child received a vitamin A supplementation drops in the mouth in the past six months.
- For deworming, show the respondent the deworming tablet and ask if the child received a deworming in the past six months.
- Similarly show the tablets/syrup/sachet for ORS, Zinc, and Iron etc….

What to do before leaving the village

- Ensure that all data collected are send to the central database by clicking the send finalized form function in the tablet.
- Ensure that all absent households were re-visited.
- Gather all survey equipment and store carefully in the car.
- Thank the village chief or responsible authority for their collaboration before leaving.

VIII. SPECIAL CASES

If the home is empty

If the home is empty, ask neighbors of the residents' whereabouts. If they are expected to return before the survey team leaves the village, **the survey team should return to administer the questionnaires on the same day**. If when you return they are still absent, write ABSENT on the questionnaires, and specify how many times you have visited the household at the end of the questionnaire in the tablet. **DO NOT REPLACE THIS HOUSEHOLD BY ANOTHER**.

If the home was completely abandoned, do not consider it as a household and continue with the household selection to complete the required number of households.

It is important for the team to verify for themselves if the home is empty.

Households without children under five or women 15 to 49 years

If a selected household does not have any children under five or women 15 to 49 years of age, **the household composition and other household questionnaire should still be administered.**

Absent children/women

Ask the reason behind the children/women's absence.

If the children/women are close to the home, someone should be sent to bring them back.

If the household members can return before the survey team leaves the village, then the survey team should return to measure the missing household member(s). **The team should complete the household composition questionnaire and measure all eligible women and children present.**

If the children/women cannot be found before the team leaves the village, the children and women should be listed on the anthropometry questionnaire (number of child/woman), age, sex etc… and noted that the child or woman was absent.

Children in nutritional or health centres

It is important to measure the children who are absent and located in nutritional or health centres. The team should go to the health centre if it is located at less than 20 km from the selected cluster.

If it is impossible to visit the health centre, the child or woman should be listed on the anthropometry questionnaire (number of child/woman), age, sex etc… and a note should be taken indicating that, at the time of the survey, the household member was at the health centre.

Disabled children/women

Disabled children/women are to be included in the survey. If a physical deformity prevents the measurement of child's weight or height, the child or woman should be listed on the anthropometry questionnaire (number of child/woman), age, sex and the data should be recorded as **missing. Always write why the measurement was not possible.** (MUAC can be taken from the right arm if the measurement is not possible on the left arm (on the questionnaire, specify **"RIGHT ARM").**

If the presence of bilateral oedema is noted, write it down and refer the individual to a nutritional/health centre.

Homes that cannot be visited

If the residents of the household refuse to participate in the survey or cannot participate because of important reasons, write all the identification information on the questionnaire and record refusal and provide the reason.

Too few households in the cluster

If there are not enough households to complete the cluster, continue to the **closest neighboring village**, select households following the sampling interval and complete the necessary number of households to complete the cluster.

IX. HOUSEHOLD COMPOSITION MODULE

The purpose of the Household Composition Questionnaire is to provide information on general characteristics of the population. You will use it to collect important information to identify eligible women and children under-five years to be included in the survey.

The definition of household can vary from one area to another. It is critical to clearly define household to all the interviewer teams before starting a survey. Interviewers must be able to clearly understand the term and explain it simply to household members during the field work.

If there are particular cases where household definition changes such as in collective households or polygamous marriages, these situations must be clearly addressed to allow the definition to clearly mark where one household ends and the next begins. .

A household is a person or group of persons who usually live and eat together. A household is defined as a person or group of persons

- Who are related or unrelated,
- Who live together in the same dwelling unit,
- Who acknowledge one adult male or female as the head of household,
- Who share the same living arrangements, and
- Who are considered as one unit.

In polygamy situation; if all wives cook together, eat together and live in the same compound, which would be one household. However, if each wife has her own kitchen and prepares food for her own children, those would be separate households.

A household head is a usual resident member of the household acknowledged by the other members of the household as the household head. This person may be acknowledged as the head on the basis

of age (older), sex (generally, but not necessarily, male), economic status (main provider), or some other reason. It is up to the respondents to define who heads the household. You are not required to assess who the household head is, or whether the person stated as the household head has the relevant characteristics to be the household head.

In some cases one may find a group of people living together in the same dwelling, but each person has separate living arrangements; they should be counted as separate one person households. Domestic servants, relatives and other workers living and eating in the household are to be included as household members (even if they spend the weekend elsewhere and stay with the household the rest of the week). Unrelated persons who live and cook meals together would be considered to form one household.

Collective living arrangements (also referred to as institutional populations) such as hostels, army camps, boarding schools, or prisons are **not considered as households**.

You will be assigned specific households to interview. Households that you will visit will be identified after household listing.

One should make a distinction between a family and a household. The first reflects blood descent and marriage. The second is used in this survey to identify an economic/social unit. You must be conscious and use the criteria provided on household membership to determine which individuals make a particular household.

You should begin by saying:

First, please tell me the name of each person who usually lives here.

List all household members their sex, age and whether they spend the last night in the household or not. Then ask: ***Are there any others who live here, even if they are not at home now?***If yes, complete the listing.

HC01. Name

Fill in the name of each household member starting with the head of household (the person who is considered to be the head of the household by the household respondent). The head of the household should not necessarily 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. You do not need to print the full name of each individual. Record the name in a way that will help you and respondents identify each member uniquely.

HC02. Sex

Enter the code for the corresponding response given. Do not try to guess the sex of the household member from the name provided to you. This can lead to mistakes. 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 because of the use of the respondent's relationship ('sister') to Mary. 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.

HC03. Age in complete years

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 years since birth'. With this definition, since a 6-month-

old baby has not completed a full year, his/her age will be entered as '0'. Note that you will be obtaining more accurate estimates of children's ages later in the anthropometric section.

HC04. Is he/she (name) spent the previous night in the household?

Record whether or not the household member stayed in the household the previous night.

X. ANTHROPOMETRY MODULE

X.I: Introduction

This module is intended for all field staff and outlines the required steps that need to be taken during data collection in order to accurately measure and weigh children. It is easy to make errors in measurements when not being careful. Measurers in particular should carry these instructions with them in the field and review them regularly to make sure they are always following the correct procedures. Coordinators and supervisors should also frequently refer to this module in the field when observing the work of measurers.

X.II: Responsibilities

Measurers:

Taking anthropometric measurements of children is the main responsibility of the team measurer and requires that he or she follows the procedures specified in this module and that no steps in the procedures are omitted. Measurers will be assisted by another trained team member however it should be emphasised that the measurer will hold the overall responsibility for determining final measurements and making sure they have been properly recorded on the tablet under the anthropometry session.

The measurer is also responsible for carrying and taking care of the equipment used for anthropometric measurements and reporting to the supervisor immediately if any of the equipment is malfunctioning.

Under no circumstances should an untrained person such as a mother or other caregiver of the child assist in taking the length or height measurement. It is however recommended that a mother or caretaker be near to the child to comfort them and assist in putting the child at ease so that the child can be measured.

Supervisors:

The supervisor is expected to regularly observe the measurer and assistants performing anthropometric measurements. The supervisors will be responsible for ensuring that measurements are taken following the exact steps and procedures outlined in this module. In situations where measurers are routinely making errors in taking and/or reading measurement, in manipulating children and/or equipment, and in reporting the information on the tablet, the supervisor should consult with the coordinators when necessary.

X.III: General precautions for measurers and assistants

1. Placement of the measuring board and electronic scale

Measurers should begin to observe possible places where the electronic scale and board can be positioned as soon as they walk into a sample household. They should be selective about where the measuring board and electronic scale is placed. 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 and ensure you place the equipment on a flat and even surface.

2. When to weigh and measure

Weights and heights of all eligible children age under five living in the household will be measured after all the household level questionnaires are completed. 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.

3. Weigh and measure one child at a time

In cases when there is more than one eligible child in the household, weigh and measure all children one after the other making sure not to be confused. It is very important to complete all the anthropometric measurement; weight, height/length etc… for one child before continuing with the next eligible child.

4. Controlling and taking care of the child

When children are weighed and measured, the measurer and assistant must take care to gently control the child. The strength and mobility of even very young children should not be underestimated. Needless to say, a gentle but firm approach is necessary. Do not apply excessive force on children's limbs to get measurements.

When a child comes into contact with any measuring equipment, that is, a measuring board or electronic scale, children must be held carefully so they do not trip or fall. Children should never be left alone with a piece of equipment; physical contact with the child, except for the few seconds while taking his or her weight, should always be maintained.

Measurers and assistants should keep objects out of their hands when a child is being weighed and measured so that the child will not get hurt due to carelessness. Measures and assistants should not have long fingernails and should remove rings and watches before they weigh and measure children to prevent them from getting in the way. No member of the field team should smoke when in a household or in the process of taking measurements.

5. Coping with stress

Since weighing and measuring requires touching and handling children, normal stress levels for this part of the survey work is higher than for where only verbal information is collected.

Measurers should explain the weighing and measuring procedures to the mother and, to a limited extent, the child, to help minimize possible resistance, fear, or discomfort. It should be determined 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, attempts to calm the child should be made for example

by returning the child to the mother for a moment before proceeding with the weighing and measuring.

If a child is terrified and cries too much this can have a big impact on the other children of the household that need to measured. In this case it may be possible to weigh and measure a distressed child after he or she has seen other children such as his or her siblings in the household being measured.

Do not weigh or measure a child if:

- The mother refuses.
- The child is physically deformed, which will interfere with or give an incorrect measurement.

To be sensitive to the feelings of such a child, its parents, and other children, you may want to measure the child, but do not record the measurements in the tablet. If you couldn't manage to take measurements for the above reasons, please do note that reasons for not taking the measurements.

6. Take good care of the equipment and keep it clean

The equipment needs to be cleaned on a very regular basis as it easily becomes dirty. As a courtesy it is important to clean the wooden height boards in between children as the feet and head are placed on the same spot of the wooden board depending on the age of the child.

7. Strive for improvement

People can become very skilled in taking measurements if they strive for improvement and follow every step of every procedure the same way every time. The quality and speed of measurements will improve with practice. Do not take these procedures for granted, even though they may seem simple and repetitious and do not omit any of the steps.

8. Hygiene

Do not handle children without clean hands. Likewise, cleaning hands after handling a child is recommended. It is advisable to carry soap as water is available in most of households for washing hands.

9. Measure women then children

Measure women first as it will help to reassure the children. It is advisable to measure the less "difficult" child first. Measure one person at a time and use the names of women and children to avoid mistakes during the recording of measures.

10. Do not frighten the child

In order to weigh and measure children, you have to help them onto the board or scale and adjust their bodies before the measurement. Always explain to the mother or the child what you will do. Ensure that the mother and child are not stressed by taking the measures. If a child is distressed, allow the mother to calm the child before taking measurements.

11. Try to continually improve your anthropometry skills

Your skills will improve if you make an effort to always make correct and accurate measures. As you develop a regular routine, it will become easier to measure even difficult children quickly and accurately.

Questionnaire

CN01: Sex

Enter the code corresponding to the answer given; male or female. Please refer to the household composition module for details.

CN02: Birth date

Enter the date of birth in the day/month/year format. If there is no date of birth written on document such as; vaccination card, family book or other card go to the next question to estimate age in months using local events of calendar.

CN03: Age in months

Child date of birth or age in months is the two 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 household composition and women's interviews, we need to obtain accurate information on the **child's age**. 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.

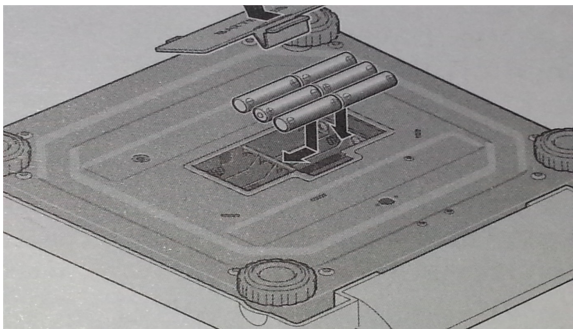
If no written document on the birth date, use local events of calendar to estimate the age of the child in months.

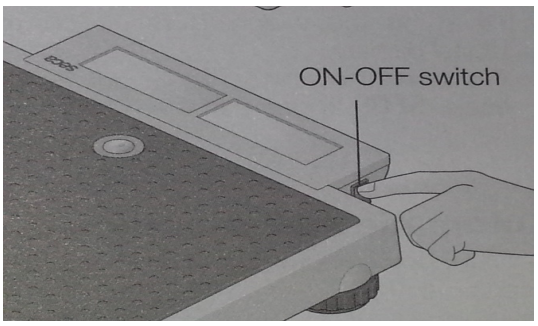
CN04: Measuring a child's weight: Summary of procedures

During the data collection children should only be weighed using the Seca 874 U electronic Scale. If for any reason the scale is not working during field work then the team leader should immediately inform the team supervisor who will contact the fieldwork supervisor to request a new scale.

1. Setting up the scale for use

- To turn on the scale, carefully turn it over so that the base is accessible. Open the battery compartment and insert the supplied batteries. To activate the power supply, push the switch located in the battery compartment in position "ON".





uneven surfaces may cause errors in weighing.

- The scale will not function correctly if it becomes too warm or too cold. 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. Make sure to check the surface if the scale for any reason has been left in direct sunlight, as the black surface can become extremely hot and easily burn bare feet. If it becomes too cold, place it in a warmer area.

- 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.

- No calibration is required, once the standardization is done in the morning and recorded in the standardization form.

2. Switching off the scale

The scale switches off automatically;

- After 3 minutes in normal mode or
- After 2 minutes, if the mother-and-baby functions is switched on.

3. Maintaining and storing the scale

Always 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.

To clean the scale, wipe surfaces with a damp cloth. Never put the scale into water.

Do not store the scale in direct sunlight or other hot places.

The Seca 874 U scale is powered exclusively by batteries. 120,000 weighing operations can be performed with one set of batteries. The scale uses four type AA 1.5 V batteries that are easily replaceable.

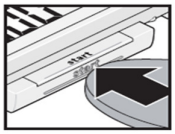
4. Preparing the child for weighing

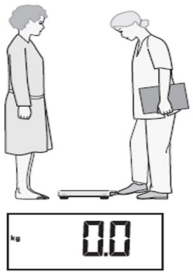
Explain to parents/caretakers that the child needs to remove outer clothing in order to obtain an accurate weight. A wet diaper, or shoes and jeans, can weigh more than 0.5 kg. **Babies should be weighed naked;** wrap them in a blanket to keep them warm until weighing. When using the **2 in** 1 or tared weighing described below, the adult can be weighed holding a blanket, which he/she can then wrap around the naked baby during measurement.

5. Weighing an Infant or Young Child

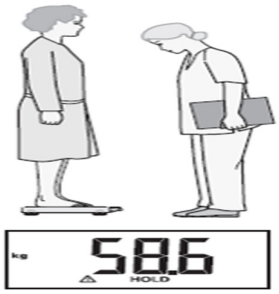
The **2 in 1** function enables the body weight of infants and young children to be determined. The child is held in the arms of the mother/caretaker (or another adult if necessary).

Measurers:





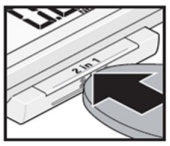
- Switch on the scale with no weight applied.
  - SECA, **8.8.8.8.8 & 0.00** appear consecutively in the display
  - Wait until **0.00** appears on the display



Ask the mother/caretaker to step onto the scale.

The weight is displayed.

Note: The person being weighed on the scale must stand very still.



- Press the **2 in 1** key.

  The weight is stored. **0.00** and the word **NET** appear on the display.

- Ask the mother/caretaker to hold the first baby while standing on the scale and to try not to move.
- Wait until the weight display and the message **HOLD** are no longer flashing.

- Read out the baby's weight to the assistant.
- Confirm the correct weight has been recorded.
- Ask the mother to step off the scale with the baby.
- The baby's weight remains displayed.

- The adult's weight remains stored.
- A new child measurement is automatically taken as soon as any weight is placed on the scale again.
- You can therefore take measurements of other babies in the same way with the same adult. You do not need to reactivate the **2 in 1** function or switch the scale off and on again between measurements. It is important that this person's weight does not change (e.g. by taking off a garment). If no measurements have been taken for two minutes, the **2 in 1** function and the scale automatically switch off and the process needs to begin again.

After each child's weight has been taken, the measurer reads out the value on the display of the scale and the assistant repeats back the value. If the measurer confirms this is correct the team leader records the value on the tablet. The measurer should check the weight that has been recorded after the weight measurement of each child has been completed.

6. Weighing older children

If the child is older and willing to stand still, weigh the child alone.

- Explain to the child that they will need to step on the scale alone and stand very still. Communicate with the child in a sensitive, non-frightening way.

- **Measurer:** Switch on the scale with no weight applied.
- Wait until the display shows **0.00** before asking the child to step on the scale.
- Ask the child to stand in the middle of the scale, feet slightly apart and to remain still until the weight appears on the display. Do not hold or support the child as this will interfere with the measurement.
- Once the value is stable for about 3 seconds, the display is retained. This avoids the display jumping around as a result of the child's movements.
- If the child jumps on the scale or will not stand still, you will need to use the tared weighing procedure instead (please see above).
- Read out loud the child's weight from the display.

- **Assistant**: Repeat the weight that has just been called out.

- **Measurer:** Confirm if this is the correct weight. If it is correct then the team leader will record the weight on the questionnaire.

- **Measurer:** Check the weight recorded in the tablet to confirm that it matches the weight that was on the display.
- The child can then leave the scale.

NOTE: Even though the displays of the Seca 874 U scales show two decimals, the last decimal is set to always show **0**.

CN05: Measuring a child's height: summary of procedures when a child is>=87cm (See illustration1)

Measurer or assistant: Place the measuring board on a hard flat surface against a wall, tree, staircase, etc. Make sure the board is stable. If the only level surface available to place the board does not have a steady structure against where to lean it, and there are no sturdy pieces of furniture that can be moved behind it, have an adult stand behind the board and provide the support for it not to tip over.

Measurer or assistant: Ask the mother/caretaker to remove the child's shoes and socks. Also ask, if necessary, the mother to unbraid any hair that would interfere with the height measurement and add to the child's height. Then ask her/him to walk the child to the board and to kneel in front of the child.

Assistant: Kneel with both knees on the child's right side (Arrow 2).

Measurer: Kneel on your right knee only, for maximum mobility, on the child's left side (Arrow 3).

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.

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 pinch the jaw. 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).

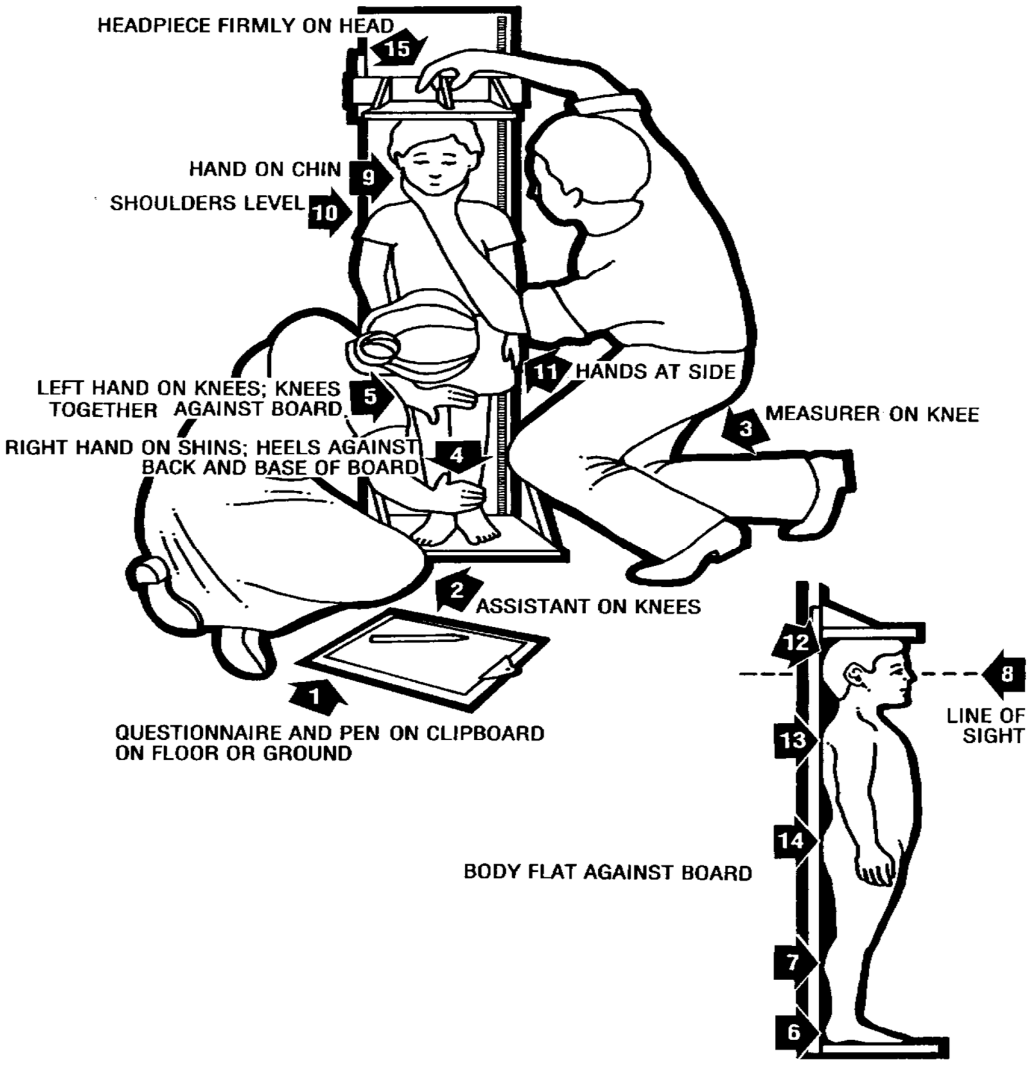
Measurer and assistant: Check the child's position (Arrows 6–14). Repeat any steps as necessary.

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.

Team leader: Immediately record the measurement and show it to the measurer. Alternatively, the team leader could call out the measurement and have the measurer confirm by repeating back.

Measurer: Check the recorded measurement on the tablet for accuracy and legibility. Instruct the team leader to cancel and correct any errors.

Illustration1. Measuring a child's height



CN05: Measuring a child's length: summary of procedures for when a child is<87cm (see illustration 2)

Measurer or assistant: Place the measuring board on a hard flat surface, such as the ground, floor or a steady table.

Assistant: Kneel with both knees behind the base of the board, if it is on the ground or floor (Arrow 2).

Measurer: Kneel on the child's right side so that you can hold the foot piece with your right hand (Arrow 3).

Measurer and assistant: With the mother's/caretaker'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.

Measurer or assistant: Ask the mother/caretaker to kneel on the opposite side of the board facing the measurer to help keep the child calm.

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.

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 foot-piece firmly against the child's heels (Arrow 9).

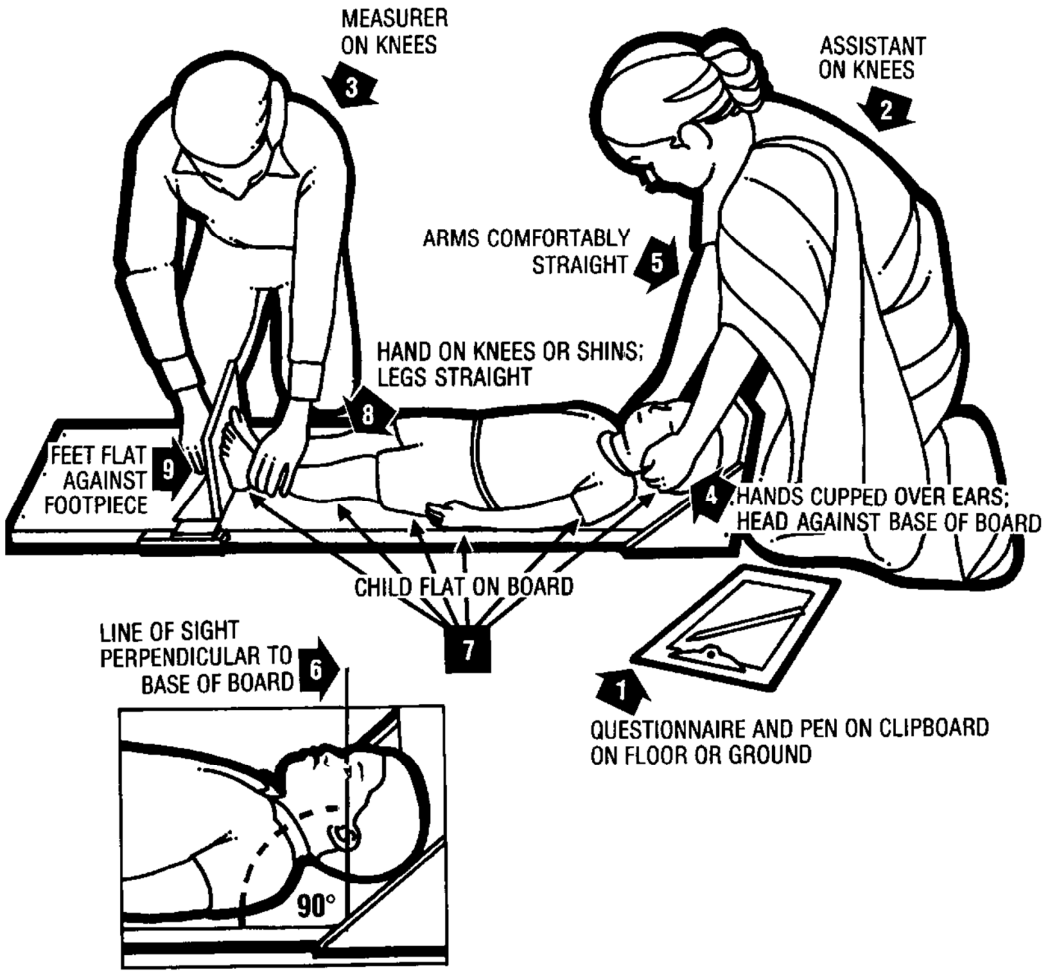
Measurer and assistant: Check the child's position (Arrows 4-9). Repeat any steps as necessary.

Measurer: When the child's position is correct, read and call out the measurement to the nearest 0.1 centimetre. Remove the foot-piece, release your left hand from the child's shins or knees and support the child during the recording.

Team leader: Record the measurement and show it to the measurer. Alternatively, the team leader could call out the measurement and have the measurer confirm by repeating back.

Measurer: Check the recorded measurement on the tablet for accuracy and legibility.

Illustration2. Measuring a child's length



CN06: Bilateral Oedema

After the child has been tested and verified for bilateral oedema, enter the corresponding code to the space provide.

1. Describe to the mother the procedure for the assessment of oedema.
2. Apply pressure (hard pressure is not necessary) with the thumbs to top part of both feet.
3. Hold the feet for three seconds (ex. Count slowly one-thousand-and-one, one-thousand-and-two, one-thousand-and-three).
4. Release both feet and assess if the imprint of the thumbs remains for a few seconds on the top of both feet. Oedema must be present in both feet (Bilateral) for the child to be considered to have nutrition related oedema (Severe Acute Malnutrition).
5. Enter the corresponding code.

Bilateral oedema diagnostic test.

All cases of children with bilateral oedema should be reviewed with the team leader and any medical personnel who may be nearby. Bilateral oedema indicates severe acute malnutrition which demands immediate treatment. If the child has bilateral oedema, fill out the referral form to the management of severe acute malnutrition program and arrange with the mother/caregiver to seek treatment as soon as possible.

CN07: MUAC

Record the MUAC in exact millimeters. For height, weight and MUAC **NEVER** round the measure to the nearest zero or 0.5. Always record the exact measure as specified.

MUAC Measurement Technique

After explaining to the mother about the middle Upper Arm circumference (MUAC) measure, follow the procedure below:

1. **Measurer:** Keep your work at eye level. Sit down when possible. Very young children can be held by their mother during this procedure. Ask the mother to remove clothing that may cover the child's left arm.

2. **Measurer:** Calculate the midpoint of the child's left upper arm by first locating the tip of the child's shoulder (Arrows 1 and 2) with your fingertips. Bend the child's elbow to make a right angle (Arrow 3). Place the tape at zero, which is indicated by two arrows, on the tip of the shoulder (Arrow 4) and pull the tape straight down past the tip of the elbow (Arrow 5). Read the number at the tip of the elbow to the nearest centimeter. Divide this number by two to estimate the midpoint. As an alternative, use a piece of string to measure the arm length and take the half-length as the middle of the upper arm. Either you or an assistant can mark the midpoint with a pen on the arm (Arrow 6).

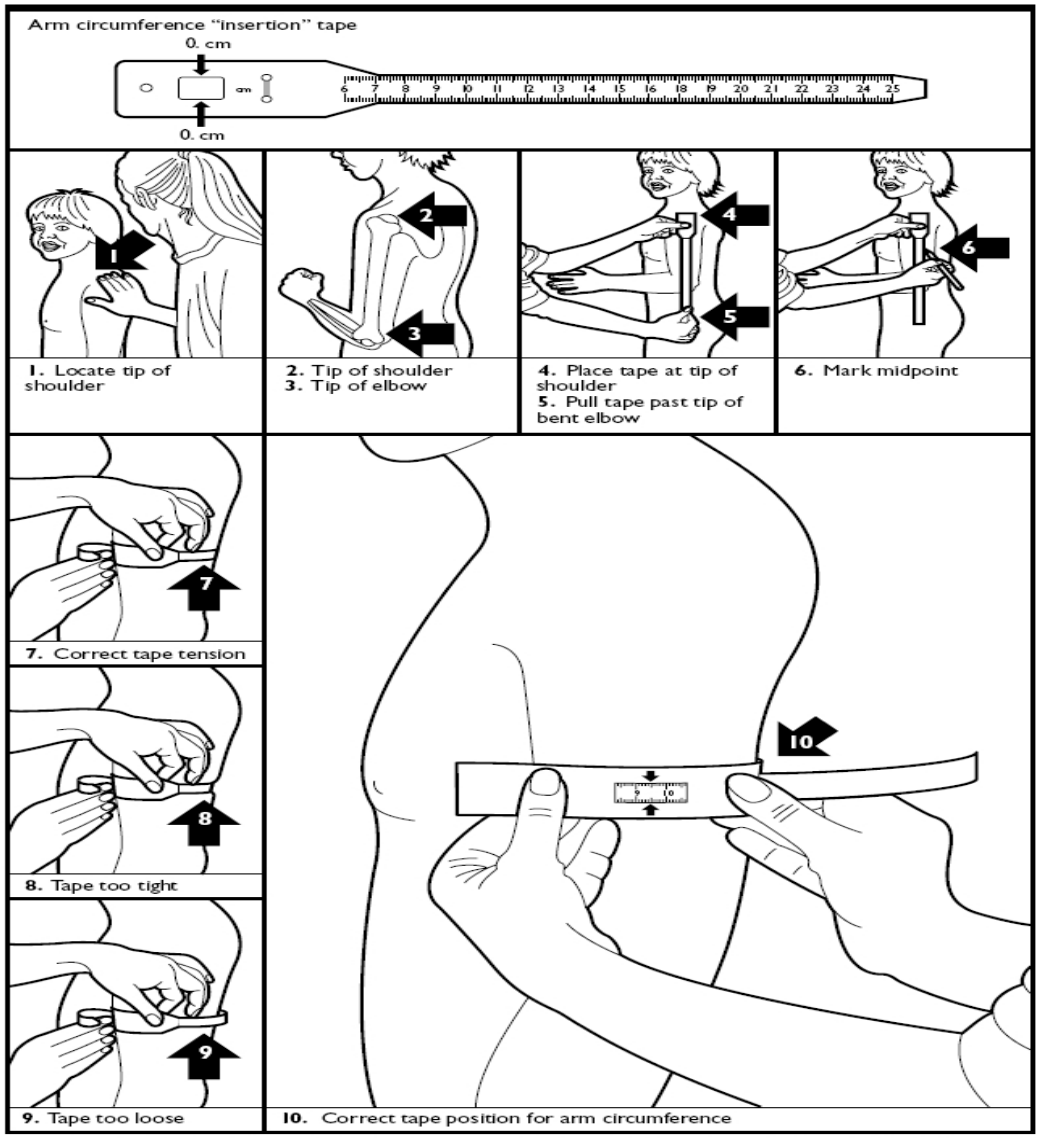
3. **Measurer:** Straighten the child's arm and wrap the tape around the arm at midpoint. Make sure the numbers are right side up. Make sure the tape is flat against the skin (Arrow 7).

4. **Measurer and assistant:** Inspect the tension of the tape on the child's arm. Make sure the tape has the proper tension (Arrow 7) and is not too tight or too loose (Arrows 8-9). Repeat any steps as necessary.

5. **Measurer:** When the tape is in the correct position on the arm with the correct tension, read and call out the measurement to the nearest 0.1cm (Arrow 10).

6. **Team leader**: Immediately record the measurement on the tablet and show it to the measurer.

7. **Measurer:** Check the recorded measurement on the tablet for accuracy and legibility. Instruct the assistant to cross-out and correct any errors.



Source: How to Weigh and Measure Children: Assessing the Nutritional Status of Young Children, United Nations, 1986.

MUAC Measurement

MUAC tapes can wear and tear quickly. Replace MUAC tapes as necessary during data collection. Please review carefully the MUAC tape in use during the morning standardization exercise before data collection to ensure that they are not stretched or inaccurate before use.

REFERRAL TO THE MANAGEMENT OF SEVERE ACUTE MALNUTRITION PROGRAM

The interviewer teams are obligated to refer all children and women found with the following conditions to a functioning centre for the Management of Severe Acute Malnutrition.

1. If the child's MUAC is less than 115 mm (only for children 6 months of age or older or if no age available – 65 cm of length or longer)
2. If there is evidence of bilateral oedema

To refer a malnourished child to a nutritional centre, you must fill in the referral form with the requested information. The team member or supervisor should also know where the closest functional treatment centre is located and help the caregivers of the child to seek treatment as quickly as possible. On the tablet please indicate that the child is referred for treatment.

CN08: Measurement

It is important to record whether the child was measured in standing or recumbent position. Enter the code corresponding to the measurement taken.

CN01: Vitamin A in the last 6 months

This question asks if the child (at least 6 months old) has received a vitamin A supplement in the last 6 months. Show the capsule you were given to help the caretaker remember. Record the code corresponding to the response.

CN10: Deworming in the last 6 months

This question asks if the child (at least 1 year old) has received an anthelmintic drug in the last 6 months. Show the tablet you were given to help the caretaker remember. Record the code corresponding to the response. Note to use local terminologies for deworming tablets as well.

XI. CHILD HEALTH MODULE

This module aim to find out if the child had diarrhoea, fever or an illness with a cough **in the last two weeks** and, if so, what treatments the child took during the episode.

Diarrhoea

Definition of terms

Dehydration:

Loss of water and dissolved salts from the body, occurring, for instance, as a result of diarrhoea

Rehydration:

The correction of dehydration

Oral Rehydration Therapy (ORT):

The administration of fluid by mouth to prevent or correct the dehydration that is a consequence of diarrhoea

Oral Rehydration Salt (ORS) solution:

Specifically, the complete, new WHO/UNICEF formula

Introduction

Acute diarrhoeal diseases are one of the leading causes of mortality in infants and young children in many developing countries. Most diarrhoea-related deaths in children are due to dehydration – the loss of large quantities of water and electrolytes (sodium, potassium and bicarbonate) from the body in liquid stools. Dehydration from diarrhoea can be prevented by giving extra fluids at home, or it can be treated simply, effectively, and cheaply in all age-groups and in all but the most severe cases by giving patients by mouth an adequate glucose-electrolyte solution. This way of giving fluids to prevent or treat dehydration is called oral rehydration therapy (ORT).

What causes diarrhoea?

Diarrhoea is a common symptom of gastrointestinal infections caused by a wide range of pathogens, including bacteria, viruses and protozoa. Just a handful of organisms are responsible for most acute cases of childhood diarrhoea, however. Rotavirus is the leading cause of acute diarrhoea, and is responsible for about 40 per cent of all hospital admissions due to diarrhoea among under-fives worldwide. Other major bacterial pathogens include E. coli, Shigella, Campylobacter, along with V. cholerae during epidemics.

What are the main forms of childhood diarrhoea?

There are three main forms of childhood diarrhoea, all of which are potentially life-threatening and require different treatment courses:

Acute watery diarrhoea

Acute watery diarrhoea includes cholera and is associated with significant fluid loss and rapid dehydration. It usually lasts for several hours or days. The pathogens that generally cause acute watery diarrhoea include V. cholerae or E. coli, as well as rotavirus. Cholera outbreaks are common in emergency situations.

Bloody diarrhoea

Bloody diarrhoea, often referred to as dysentery, is marked by visible blood in the stools. It is associated with intestinal damage and nutrient losses. The most common cause of bloody diarrhoea is Shigella.

Persistent diarrhoea

Persistent diarrhoea is an episode of diarrhoea, with or without blood that lasts at least 14 days. Undernourished children and those with other illnesses, such as AIDS, are more likely to develop persistent diarrhoea. Diarrhoea, in turn, tends to worsen their condition.

How is diarrhoea prevented?

Many well-known child survival interventions are critical to reducing child deaths due to diarrhoea. These include:

- Immunization (including rotavirus and measles vaccinations)
- Water, sanitation and hygiene
- Nutrition
- Breast milk
- Micronutrient supplementation (including vitamin A and zinc)

How is diarrhoea treated?

- Oral rehydration therapy
- Continued feeding
- Zinc supplements

Oral rehydration therapy (ORT):

ORT is a cornerstone of treatment programmes to prevent life-threatening dehydration associated with diarrhoea. Fluid replacement should begin at home and be administered by the caregiver at the start of the diarrhoea episode. A solution made from **oral rehydration salts (ORS)** is the ***'gold standard'*** of ORT, and a new formula has been developed (known as ***low-osmolarity ORS***) that improves overall outcomes when compared to the original version. *UNICEF and WHO recommend that all children with diarrhoea have access to this new ORS formula;* making it widely available to children in need.

When ORS packets are not available, other fluids will also work to prevent dehydration among children with diarrhoea, although they are not as effective in treating children who have become dehydrated. Such fluids (which many countries have designated as 'recommended home-made fluids') can be prepared using readily available and low-cost ingredients. *Examples of rehydrating fluids include water with sugar and salt, cereal-based drinks made from a thin gruel of rice, maize, potato or other readily available low-cost grain or root crop that families have at home.* Breast milk

is also excellent for fluid replacement and should be given to infants with diarrhoea simultaneously with other oral rehydration solutions. If ORS or other appropriate fluids are not available, increased amounts of almost any fluid can also help to prevent dehydration.

Zinc supplements

A recent and important development in diarrhoea treatment is the addition of zinc to the regimen. A 10 to 14 days treatment course with zinc tablets effectively reduces the duration and severity of diarrhoea episodes as well as the need for advanced medical care. Children receiving zinc often have better appetites and are more active during the diarrhoea episode; its use has also been associated with increased ORS uptake. The provision of zinc tablets by health workers may also reduce the demand from caregivers for other less effective drugs, such as antibiotics and anti-diarrhoeal medications, which should not be routinely administered.

CH05. In the last two weeks, has (name) had diarrhoea?

Diarrhoea is defined as three or more loose or watery stools per day, or more frequently than is normal for the child.

Select the code corresponding to response given. 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 more frequently than is normal for the child**."** 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 CH08.

Note: It is normal for exclusively breastfed babies to have three or more loose stools every day.

CH06. If yes in CH05, during the time (name) had diarrhoea, was (name) given to drink ORS?

We want to know if and what type of oral rehydration solution (ORS) the child took during the last episode of diarrhoea. This includes:

1. A fluid made form a special packet called ORS solution
2. A pre-packaged ORS fluid for diarrhoea

Enter the code corresponding to the answer given.

CH07.If yes in CH05, during the time (name) had diarrhoea, was (name) given zinc tablets/syrup?

Enter the code corresponding to the answer given.

Acute Respiratory Infection (ARI) or Suspected Pneumonia

Introduction

Pneumonia is the leading killer of children. Of the estimated 6.9 million child deaths each year, 18 per cent or 1.2 million are due to pneumonia.

This toll is highly concentrated in the poorest regions and countries and among the most disadvantaged children within these societies. Nearly 90 per cent of deaths due to pneumonia as well as diarrhoea occur in sub-Saharan Africa and South Asia.

Mortality due to childhood pneumonia is strongly linked to poverty-related factors including undernutrition, lack of access to safe water and adequate sanitation, indoor air pollution and inadequate access to health care. Therefore an integrative approach to tackle this important public health issue is an urgent need

Terminology:

Acute respiratory infection (ARI): This includes any infection of the upper or lower respiratory system, as defined by the International Classification of Diseases. Acute lower respiratory infections (ALRI) affect the airways below the epiglottis and include severe infections, such as pneumonia.

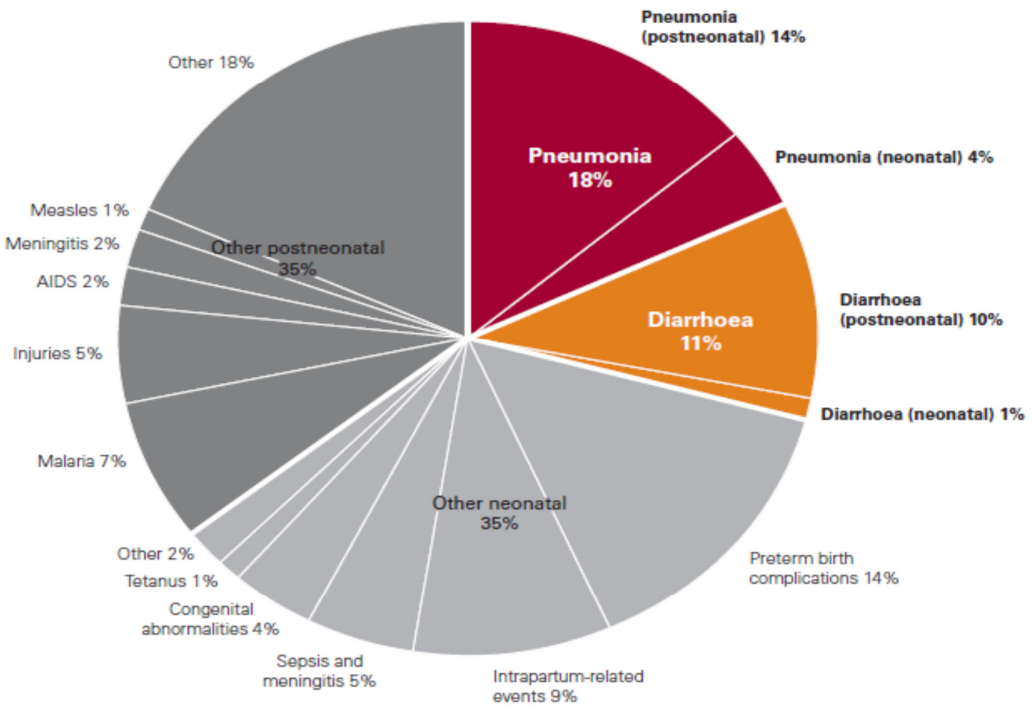
Pneumonia: Pneumonia is a severe form of acute lower respiratory infection that specifically affects the lungs, and accounts for a significant proportion of the ALRI disease burden. The lungs are composed of thousands of tubes (bronchi) that subdivide into smaller airways (bronchioles), which end in small sacs (alveoli). The alveoli contain capillaries where oxygen is added to the blood and carbon dioxide is removed. With pneumonia, pus and fluid fill the alveoli in one or both lungs, and this interferes with oxygen absorption, making breathing difficult.

Suspected pneumonia: Suspected pneumonia refers to children with a combination of respiratory symptoms for which they should seek clinical assessment for pneumonia by an appropriate provider. These respiratory symptoms include 'cough and fast or difficult breathing due to a chest-related problem'. Not all children with suspected pneumonia should receive antibiotic treatment, only those with pneumonia based on a rapid respiratory rate counted by a health worker. It is not possible to measure such pneumonia prevalence among children under age 5 during a household survey interview or to ascertain underlying pneumonia illness for children with these respiratory symptoms. Thus, data collected through national household surveys report pneumonia prevalence based on information regarding whether children have experienced coughing and fast or difficult breathing in the two weeks prior to the survey, and these children have not necessarily been diagnosed by a health professional.

Magnitude of the problem

FIGURE 1 **Pneumonia and diarrhoea are among the leading killers of children worldwide**

Global distribution of deaths among children under age 5, by cause, 2010



Note: Undernutrition contributes to more than a third of deaths among children under age 5. Values may not sum to 100 per cent because of rounding.
Source: Adapted from Liu and others 2012; Black and others 2008.

CH08.At any time in the last two weeks, has (name) had an illness with a cough?

Illness with a cough means a cold or other acute respiratory illness with a cough.

Enter 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. However, if the symptoms started before but continued into the 2-week period, this counts as 'Yes'.

If the answer is 'No' or 'DK', circle the appropriate code and skip to the next module

CH09. If yes in CH08, when (name) had an illness with a cough, did he/she breath faster than usual with short, rapid breaths or have difficulty breathing?

This question is asked only if the child had a cough in the past two weeks. The question aims to find out if the child has or had an illness requiring assessment by a health professional. Short, rapid breathing or difficulty breathing are signs of pneumonia or other acute respiratory infections, which are a principal cause of death among children.

If the respondent asks "What do you mean by 'fast breathing'?" you may say: **"**I mean, noticeably faster than normal when the child is rested.**"** If the respondent asks "What do you mean by 'difficulty breathing'?" you may say **"**I mean, 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. Enter the code corresponding to the response. If the answer is 'Yes', continue to the next question. Otherwise, skip to the next module.

CH10. If yes in CH09, at any time during the illness was (name) given any medicine for the illness?

Enter the code corresponding to the answer given. If the child was not given any medicine for the illness or if the mother/primary caretaker does not know, skip to the next module.

CH11. If yes in CH10, What medicine was (name) given?

Enter the codes corresponding to **all medicines taken by the child to treat the cough.** After the first reply, probe by asking: **"any other medicine?"** until all medicines is mentioned.

If the respondent cannot remember the names of all the medicines the child took, ask to see the package of leftover medicines; some households keep popular medicines at home.

XII. CHILD IMMUNIZATION MODULE

This module is used to obtain information for children under five who have ever received any vaccine, received DTP / Penta (DTP-Hep-Hib) and measles immunizations.

Do you have a vaccination or health card where (name)'s vaccination are written down? If yes: may I see it please

Please request the mother or caretaker to provide you with vaccination or child health card. 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 to check the birth date. 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, enter the corresponding responses from the card.

If the child has a vaccination card or other document but the respondent is unable to show you, you will be asking the respondent to recall the child's vaccinations and enter the corresponding response

Enter the corresponding code to the answer give. 1=yes from card 2=yes, mother recall 8=no

In addition to what is recorded in the vaccination card, did (name) receive any other vaccinations, including vaccinations received in camping or immunization days or child health 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 the child to a National Immunization Day or measles campaign etc…. You may want to go through the immunization card with the respondent to perhaps help trigger memories.

If the answer is 'Yes', check the corresponding box **"yes, mothers recall",** 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. For example, if two doses of DTP/Penta were recorded on the card, and another dose was given but not recorded, the answer for the number of times the child received DTP/Penta should be three.

If children do not have vaccination cards, or vaccination cards were not shown for different reasons, please use recall of mothers/primary caretakers. When mentioning the vaccines or the specific diseases, use **local synonyms** to ensure that they understand the specific vaccine we are referring to.

CH01. Has (name) ever received any vaccinations to prevent him/her from getting disease, including vaccinations received in a campaign or immunization day or child health day?

We are not interested in injections for treating a disease – antibiotics, anti-malarial, etc. – but only in vaccines.

Enter the code corresponding to the response. If the answer is 'Yes', either form the card or mothers/caretakers recall continue to the next question, to start asking about DTP/Penta and Measles vaccines, if the answer is 'No' or 'DK', skip to CH05.

CH02. If yes in CH01, has (name) ever received a DTP/Penta vaccination? That is, an injection in the thigh to prevent him/her from getting DTP-Hib-Hpib

This injection is given to prevent him/her from getting Depthteria, Tetanus, and Pertussis – Hepatitis B & Haemophilus Influenza Type B

Enter the code corresponding to the response. If the answer is 'Yes card/mothers recall', continue to the next question, if 'No' or 'DK', skip to CH05.

CH03: If yes in CH02, how many times was a DTP/Penta vaccine received?

Fill in the number in the space provided.

CH04. Has (name) ever received a measles injection (or an MMR or MR) – That is a shot in the arm at the age of 9 months or older – to prevent him/her from getting measles?

ENTER 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 select 'Yes'.

Note: Indicate that the yellow fever vaccine is **sometimes** given at the same time as the measles vaccine and **a shot in the arm**.

XIII. WOMEN AND NEWBORN HEALTH AND NUTRITION MODULE

The module should be administered to all women age 15-49 years (including women age 15 and age 49). Some of the questions under this module deal with private practice. They are designed to collect the basic information needed to estimate nutritional status of women, contraceptive prevalence rates and types of methods used, skilled attendant at delivery and Iron use during the last pregnancy.

Any other person that may be present during the interview should be asked to leave the interview area to ensure privacy, particularly when asking the question related to contraception. Even in cases where women are being interviewed alone, they will be reluctant to answer these questions. Make sure to emphasize here that the respondent's answers will remain strictly confidential.

W02: Age in years

Rerecord the woman's age in complete years, care should be given not to round off ages to the digit 0 and 5.

W03: Mid Upper Arm Circumference (MUAC)

Record the MUAC in exact millimetres. Never round the measure to the nearest 0 or 5. Always record the exact measure as specified.

W04: Are you pregnant now?

This question is important because questions on contraception in this module will not need to be asked of pregnant women. A woman who is pregnant does not need to use contraception.

Enter the code corresponding to the response given. If she is pregnant, select 'yes' and skip to W08. If the woman is unsure or does not know for certain if she is pregnant, select the code corresponding to the response given.

W05: Are you currently married or living together with a man as if married?

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 months/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.

The options here are currently married, living with a man, or not in union (the woman is neither married nor living with a man as if married). Enter the code corresponding to the respondent's status at the time of the interview. If the woman is currently neither married nor in a union, skip to W08.

W06: If yes in W05, are you currently doing something or using any method to delay or avoid getting pregnant?

Enter the code corresponding to the response given

W07: If yes in W06, which method are you using?

Enter the code corresponding to the response given. Do not prompt the woman. If she mentions more than one method, enter 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 (specify)'.

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 more more depending on the type of IUD.

If the woman has been sterilized, you will select the choice for 'Female sterilization' as the current method. If the woman's current partner has been sterilized, you will select the choice 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) requires a woman to breastfeed frequently (without feeding the child anything else except water) and to know that the method can be used for up to six months after a birth as long as menstruation has not returned.

Questions from [W09 to W11] are to be administered to all women who have had a live birth in the 2 years preceding the date of the interview. Use the 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, skip to the next module.

The purpose of this module is to obtain information on service provided to mother during pregnancy (iron supplementation) and care received during labour and delivery.

W08: Did you give birth in the last two years?

This question is referring only to live births in last 2 years. If the respondent had no live births in last 2 years enter the code to the corresponding response. If she has had a live birth in last 2 years continue with W09 and if no live birth in the last 2 years go to the next module.

It is important that the respondent understands which events to include in her responses. We want to know about all of the woman's live 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.

Do not 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).

W09: If yes in W08, who assisted with the delivery of the last birth (name)?

Enter the code for the person assisted with the delivery. Probe: "Anyone else?" and enter the codes for any other persons assisting with the delivery of this child.

When asking this question, be sure to use the name of the child you are referring to, so that there is no confusion.

Doctors, nurses and midwives are skilled health personnel who have been trained to proficiency in the skills needed to manage normal (uncomplicated) pregnancies and the immediate postnatal period or refer obstetric complications.

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 and try to identify. Enter 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 specify'.

W10: If yes in W08, did you see anyone for antenatal care during your pregnancy with (*name*)?

Antenatal care check-ups help to detect problems associated with pregnancy and delivery. All pregnant women should have routine check-ups. These questions refer to any antenatal care received during the pregnancy – a check specifically for the pregnancy and not for other reasons.

If she saw no one for antenatal checks, mark the appropriate answer and skip to W16. If the woman answers 'Yes' to, continue with W11.

W11: If yes (W10), whom did you see?

Doctors, nurses, midwives, community health workers are skilled health personnel who have been trained to proficiency in the skills needed to manage normal (uncomplicated) pregnancies and the immediate postnatal period or refer obstetric complications. 'Traditional birth attendants' are not considered skilled health personnel even if they have received training.

Mark the code for the person seen for antenatal care. Probe to learn if she saw more than one person by asking "ANYONE ELSE?" and mark the codes for any other persons seen for antenatal care during this pregnancy. If you are unsure how to code a person mentioned, mark 'Other'.

W12: If yes (W10), How many times did you receive antenatal care during this pregnancy?

Ask the respondent how many times she saw someone for antenatal care during her last pregnancy (i.e., she was pregnant with her last child). This refers to care related to her pregnancy and would not include seeing a doctor or nurse for other reasons.

Probe to identify the number of times antenatal care was received. If a range is given, record the minimum number of times antenatal care received. For example, after probing, if a woman still says that she received antenatal care 5-10 times, record '5'.

W13: If yes (W10), during (any of) your antenatal visit(s) for the pregnancy with (*name*), did you take any medicine in order to prevent you from getting malaria?

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 maternal anaemia, low birthweight in newborns, and even death. 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 from early in the second trimester until the time of delivery. 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 but other brand names can exist. Other anti-malarial medicines can be used as a preventive measure as well.

Mark 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, or if she does not know whether she received treatment to prevent malaria during her last pregnancy, mark respective answers and skip to the following question.

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, mark 'No' and skip to other question.

W14: If yes (W13), which medicines did you take to prevent malaria?

Mark the codes corresponding to all medicines reported taken to prevent malaria during the pregnancy. 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 anti-malarials 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, Mark on the assumption that she took SP/Fansidar. If she took another medicine, select 'Other', If she doesn't know the name of the medicine she took to prevent malaria, select don't know.

W15: If yes (W14=1), during your pregnancy with (*name*), how many times did you take SP/Fansidar in total?

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 'times' taken (three tablets taken at the same time = '1 dose' = '1 time') when the woman was pregnant and did not have a fever.

W16: If yes (W10), were you offered a test for the AIDS virus as part of your antenatal care?

We want to know if someone spoke with the respondent about AIDS or the AIDS virus during any of her antenatal care visits during this pregnancy. 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.

W17: If yes (W16), I don't want to know the results, but were you tested for the AIDS virus 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. Mark the code corresponding to the response..

W18: If yes (W17), 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. Mark the code corresponding to the response.

XIV. MALARIA MODULE

Definition of some key terms

Malaria:

A group of diseases caused by any of four different microorganisms called plasmodia (Plasmodium falciparum, vivax, ovale, and malariae), which are transmitted by certain species of mosquitoes. Malaria is found mostly in tropical and subtropical regions of the world. It can cause anaemia due to haemolysis of red blood cells.

Insecticide-treated net (ITN):

An insecticide-treated net is a mosquito net that repels, disables, and/or kills mosquitoes coming into contact with insecticide on the netting material. There are two categories of ITNs: conventionally treated nets and long-lasting insecticidal nets.

Conventionally treated net:

A conventionally treated net is a mosquito net that has been treated by dipping in a WHO approved-insecticide treatment. It should be re-treated after three washes, or at least once a year with recommended insecticide to ensure its continued insecticidal effect.

Long-lasting insecticidal net (LLIN):

WHO defines a long-lasting insecticidal net as a factory-treated mosquito net made with netting material that has insecticide incorporated within or bound around the fibres. The net must retain its effective biological activity without re-treatment for at least 20 WHO standard washes under laboratory conditions and three years of recommended use

Universal Coverage (UC):

All people at risk from malaria are protected, thanks to locally appropriate vector control methods such as insecticide-treated nets (ITNs) , and, where appropriate, indoor residual spraying (IRS) and, in some settings, other environmental and biological measures; . In the case of ITNs, coverage refers to all at risk populations sleeping under an ITN.

Utilisation Rate:

The proportion of persons who slept under a mosquito net the previous night, this can be calculated for the sub-groups of children under 5 and pregnant women.

Ownership Rate:

The number of households that own one or more mosquito nets, this can be reported for all mosquito nets and the sub-groups of ITNs and LLINs.

ML01: Does your household have any mosquito nets that can be used while sleeping?

Enter the code corresponding to the response given. If 'No', skip to ML04. Note that the question asks whether the household has mosquito nets that ***can be*** used while sleeping. In short, even if there is a mosquito net which is actually not used or set up, we consider that the household owns it and include this net in the total number of mosquito nets. If there is a local term for mosquito net, please use this to describe.

Purpose/rationale: this indicator measures household mosquito nets ownership.

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.

ML02: How many mosquito nets does your household have?

Enter the number of mosquito nets that the household has. Remember that if a mosquito net is owned but not used, we include this net in the total number of mosquito nets. Since 2007, the WHO has recommended that ITNs be made available to all people at risk, regardless of age, i.e. universal access. In assessing universal access, it is assumed that two people can sleep under one ITN. Given the new focus on achieving universal access to and utilization of ITNs, this indicator has been recommended.

Please ask the respondent to show you the nets in the household. There are various types and brands of mosquito nets. However, in this survey you are requested only to count the number and observe the net, not to look in details of the brand or type of nets.

Purpose/rationale: Measures the proportion of households that have a sufficient number of mosquito nets to cover all individuals who spent the previous night in surveyed households, assuming each mosquito net is shared by two people. It is useful for determining what proportion of households has achieved universal coverage with mosquito nets. In comparison with the indicator ML01, it describes the intra-household ownership gap, i.e., households which own at least one mosquito net, but have not achieved universal coverage. It also provides an estimate of the proportion of the population that could have slept under a mosquito net assuming each mosquito net is used by two people.

ML03: If yes (ML01), did the child (name) sleep under the mosquito net last night?

Enter the code corresponding to the answer given (1=yes 2=no 8= don't know).

Purpose/Rationale: Measures the level of mosquito net use of children under five years old.

ML04: In the last two weeks, has (name) been ill with a fever any time?

Fever is a symptom of malaria, and in areas where malaria is endemic, mothers are advised to take action as soon as fever begins (i.e. by getting their children tested to confirm malaria infection and then provide appropriate treatment based on the results).

Enter the code corresponding to the answer given (1=yes 2=no 8=don't know). Enter 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, go to next module.

ML05: If yes in ML04, at any time during the illness, did (name) have blood for testing?

Enter the code corresponding to the response given. 1= yes 2= no 8=don't know

Purpose/rationale: This indicator measures the extent to which children with fever obtain a parasitological diagnosis. Only a minority of fever cases that present to a health facility have evidence of malaria parasitaemia when tested and should be treated with antimalarial medicines.

Note: A child with fever cases that test negative should not be treated with antimalarial medicines because;

(i) the true cause of fever should be ascertained and treated appropriately,

(ii) treatment of patients with negative test results causes wastage of high-cost, ACT, and

(iii) Treatment patients with negative test results causes increased selective pressure for drug resistance, thereby accelerating the onset of drug resistance.

Note 2: A blood sample from figure may not have been taken to diagnose malaria (for instance, these methods are also used to diagnose anaemia). However, the most likely purpose for this age group is malaria testing, especially when the child has a fever, so this should not be of considerable concern.

This indicator provides a proxy measure of the level of access of children under five years old to diagnostic testing for malaria infection.

ML06: If yes in ML04, at any time during the illness was (name) given any medicine for the illness?

Enter the code corresponding to the answer given. If the child was not given any medicine for the illness or if the mother/primary caretaker does not know, skip to the next module.

ML07: If yes in ML04, what medicine was (name) given?

Enter the codes corresponding to all medicines taken by the child to treat the fever, both anti-malarial and other types of medicines such as acetaminophen that were provided or prescribed at the health facility. Enter all brand name(s) of all medicines that was given. After the first reply, probe by asking: **"ANY OTHER MEDICINE?"** until all medicines are mentioned.

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 anti-malarial and other types of medicines taken:

1. Ask to see the package of leftover medicines; some households keep popular anti-malarial and other medicines at home.
2. Show the respondent a sample of each common anti-malarial – from both public and private source – in the original packages, in case some respondents remember the containers.
3. Use common brand names when asking the respondent about anti-malarial medicines.

If the medicine is an anti-malarial but is not listed, select other antimalarial and fill in the name in the space provided. If the mother/primary caretaker still doesn't know, select the code corresponding to the answer.

Purpose/Rationale (ACT): This indicator assesses what proportion of antimalarial treatment received by children under five are in accordance with national malaria treatment policy. Understanding which antimalarial drugs are provided is an important component for monitoring access to effective treatment.

Note: This indicator measures the extent to which ACT or other first-line treatments are used to treat malaria as a proportion of all antimalarial treatments and, thus, is a measure of effective treatment. Ideally, ACTs or other first-line treatments should represent almost all antimalarial treatments.

XV. MNCHW MODULE

Definition of some key terms

The rate of reduction in maternal mortality ratio and under-five mortality rates over the last decade in Nigeria is not sufficient to attain the MDGs 4 & 5 that the country pledge to meet by 2015. The Nigeria Demographic Health Survey 2013 estimated maternal mortality ratio 576/100,000 live births and under-five mortality 128/1,000 live births. This is far from the goal for 2015, which is maternal mortality ratio 250/100,000 live births and under-five mortality rate 67/1,000 live births. Coverage of high impact interventions such as skill birth attendant, family planning, preventive treatment of malaria and child survival interventions such as immunization, vitamin A supplementation, and use of ORS and Zinc for diarrhoeal treatment coverages are generally low. However, there is a significant difference in the coverage of these services across different regions/zones and states.

A weeklong Maternal Newborn and Child Health (MNCH) program was launched by the Federal Government of Nigeria in 2010 in response to such low coverage of high impact intervention in the country with main objective to mobilize the population for increased uptake of routine services at health facility level. The goal of the program is to improve the quality and uptake of heath service to reduce child mortality and improve maternal health.

The MNCHW program is delivering an integrated highly cost-effective preventive and curate services twice a year across the whole country. The week-long events are provided to strengthen the delivery of routine service at health facility level. The MNCH week program delivers a wide range of interventions including: Vitamin A supplementation, de-worming, Lo-ORS/zinc, immunization,

nutritional assessment, LLIN distribution, health promotion, birth registration and family planning services.

MN01: Was there a Maternal New-born and Child Health week (MNCHW) campaign in the last 6 months?

Mark the code corresponding to the answer given.

MN02: If yes (MN01), did anyone from this household receive any services (such as vitamin A supplementation) during this MNCHW campaigns?

Mark the code corresponding to the answer given.

MN03: If yes (MN02), where did they receive services during the MNCH week campaign?

This question is to know whether the MNCHW program was delivered though fixed health facility, mobile site or using house to house method. Mark the code corresponding to the answer given.

Ending of Questionnaire

Thank the respondent for his/her cooperation

Observations

The last page of the household questionnaire has been reserved for the interviewers to write any notes or observations regarding this particular household interview. Please do write any observations on this page.