Child, Caregiver & Household Well-being Survey Tools for Orphans & Vulnerable Children Programs

MEASURE Evaluation
ANALYSIS GUIDANCE

Cover photograph (c) 2005 Project Concern International, Courtesy of Photoshare:
Zambian orphans huddle together outside the home of their new caretaker after losing both their parents to the AIDS epidemic.

Child, Caregiver, and Household Well-being Survey Tools for Orphan and Vulnerable Children Programs

Analysis Guidance

This manual has been supported by the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) through the U.S. Agency for International Development (USAID) under the terms of MEASURE Evaluation cooperative agreement GHA-A-00-08-00003-00. Views expressed are not necessarily those of PEPFAR, USAID, or the United States government.

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The development of this tool kit was highly participatory. Materials represent the current best practice around the measurement of orphans and vulnerable children (OVC) and caregiver well-being in the context of the U.S. President's Emergency Plan for AIDS Relief (PEPFAR)-funded OVC programs. At USAID, the development of this tool kit was shepherded by Dr. Janet Shriberg and Gretchen Bachman, with key input from the wider PEPFAR Orphans and Vulnerable Children Technical Working Group, especially, Dr. Beverly Nyberg at Peace Corps and Dr. Nicole Benham at the Office of the Global AIDS Coordinator. We thank Dr. Krista Stewart at USAID for her guidance as the MEASURE Evaluation agreement officer representative.

The important contributions of implementing partners, researchers, government staff, and other stakeholders, too numerous to list, cannot be overstated. This is truly a community tool kit, and we are grateful to our colleagues for their generosity of time, resources and experience.

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LIST OF ACRONYMS

AIDS	acquired immune deficiency syndrome
ANOVA	analysis of variance
BMI	body mass index
DDS	Dietary Diversity Score
HDDS	Household Dietary Diversity Score
HH	household
HFIAS	Household Food Insecurity Access Scale
HIV	human immunodeficiency virus
ID	identification
M&E	monitoring and evaluation
MUAC	mid-upper arm circumference
N	number
NGO	nongovernmental organization
OVC	orphans and other vulnerable children
PEPFAR	U.S. President's Emergency Plan for AIDS Relief
Q_	question
SD	standard deviation
USAID	U.S. Agency for International Development
WHO	World Health Organization

LIST OF TERMS AND DEFINITIONS

Orphan	A child who has lost one or both parents to HIV/AIDS.
Residence	A rural or urban area.

MEASURING OVC OUTCOMES: A TOOL KIT

MEASURE Evaluation has produced a set of tools for measuring quantitative child outcomes and caregiver/household outcomes in programs for orphans and vulnerable children (OVC). This tool kit was developed with the support of the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) Orphans and Vulnerable Children Technical Working Group to:

- standardize the production of population-level child and caregiver well-being data beyond what is available from routine surveys;
- produce actionable data to inform programs and enable mid-course corrections; and
- enable comparative assessments of child and caregiver well-being and household economic status across a diverse set of interventions and geographical regions.

Who Will Use the Tool Kit?

The tools will support OVC programs and research institutions with an evaluation agenda. The tool kit may be useful to you if are seeking to answer one of these five questions:

1. Is my program having, or did my program have an impact on the children and households it reached?
2. What are the characteristics of children and their caregivers in my area regarding education, health, protection, and psychosocial status?
3. Where do the children most in need of program support live?
4. Approximately how many children need services or support?
5. What are the needs of my program's registered beneficiaries as an entirety, in terms of education, health, protection, and psychosocial support?

While no single data collection tool can meet all OVC data needs, this set of survey tools responds to distinct information needs related to program planning and evaluation. These tools will help to standardize measures and processes for assessing child, caregiver, and household well-being at the population level.

Tools in the Tool Kit

The tool kit is available at:

http://www.cpc.unc.edu/measure/our-work/ovc/ovc-program-evaluation-tool-kit

The kit includes:

- *Child, Caregiver & Household Well-being Survey Tools for Orphans & Vulnerable Children Programs: Manual* and three questionnaires: Caregiver Questionnaire, Child Questionnaire Ages 0-9 Years, and Child Questionnaire Ages 10-17 Years;
- Child, Caregiver & Household Well-being Survey Tools for Orphans & Vulnerable Children Programs: Protocol Template;

- Core OVC Program Impact Indicators;
- data analysis guide (this document);
- data collector training manual and materials.
- a data management guide;
- a report on a pilot test of the survey tools; and
- a psychosocial well-being measurement supplement.

Manual: The tool kit's manual describes the tools, question by question, and outlines how the tools may be used, and how they should not be used. The manual also includes basic guidance on implementing the tools, such as the following:

- Program outcome data should be collected by trained data collectors external to service delivery.
- A documented research protocol, outlining a technically robust, peer-reviewed study, is required.
- The protocol, including data collection tools, must undergo ethical review in the country of research.
- Tools should be pilot-tested in the research setting.

Protocol Template: A research protocol is a prerequisite to implementing the OVC questionnaires. The process of protocol development facilitates agreement on the implementation strategy, and child protection issues, among other things. This process improves the study design, enables matching of resources to objectives, and ultimately improves the usability of the data generated from the study. Finally, the protocol is a guidance document for all stakeholders throughout the study period, serving as a reminder to all stakeholders of the agreed strategy and timeline. The protocol template has been structured to resemble an actual research protocol, including appendices. For each section, the information that is required has been outlined, as well as issues to consider when developing your own protocol.

Data Analysis Guide: Developing a data analysis plan is the first step in data analysis. A data analysis plan is important as it enables discussion and agreement of the key points of analysis, ensures that the analysis plan will address the research questions, and that the analysis reflects the strengths and limitations of the data. In order to reduce the burden on evaluators, MEASURE Evaluation developed a data analysis guide for the child, caregiver and household well-being survey tools. This guide includes suggested analyses by questions, as well as more general background, refresher information on data analysis.

Data Collectors Training Manual and Materials: The field workers who will seek informed consent and administer these questionnaires must be well trained before data collection begins. MEASURE Evaluation developed a data collectors' training manual and materials to ensure a standard level of competency across data collectors. This manual describes the structure and content for a six-day training (five days for data collectors and one additional day for supervisors). MEASURE Evaluation has also developed Microsoft PowerPoint slides and handouts for the training, included with the manual.

Data Management Guide: This guide provides standardized data management procedures, steps for database design, and describes best practices in data entry and data cleaning.

Report on the Pilot Test of the Survey Tools. The pilot test report presents methods, findings, and lessons learned from pilot testing the OVC survey tools in Zambia and Nigeria.

Psychosocial Well-being Measurement Supplement: The final MEASURE Evaluation OVC Survey Tools include four questions on social support only. In this document, we describe additional questions and scales that we considered and pilot-tested, and our learning around them, providing references for investigators aiming to measure these components.

OVERVIEW OF DATA ANALYSIS GUIDANCE

I.a. Purpose

This data analysis guidance is a part of the PEPFAR orphans and other vulnerable children (OVC) program evaluation tool kit developed by MEASURE Evaluation.

The purpose of this guidance is to:

- familiarize investigators with PEPFAR's expectations of how to analyze data gathered from these tools;
- enable the production of comparative analyses of child and caregiver well-being and household economic status data across a diverse set of interventions and geographical regions; and
- reduce the burden on local and international researchers who want to implement the OVC program evaluation tools. We hope that this guidance will reduce the level of effort needed to develop study-specific analysis plans.

I.b. Description and Audience

As indicated in the tools' manual, the PEPFAR OVC program evaluation tools were developed specifically to support program evaluation but may be adapted for use in intervention evaluations and situation analyses. The purpose for which you have used the tools (program evaluation, intervention evaluation, or situation analysis), your study design (cross-sectional or cohort, with or without a comparison group), whether you are collecting data at one or more points in time (and where you are in your study timeline), and, of course, your study objectives, will determine how you should analyze your data. In this document we give broad guidance focused on areas of interest for program evaluation. In most cases, we demonstrate analyses for data collected at a single point of time without a comparison group. We provide examples of how to present data collected at two or more points of time, with and without a comparison group in Appendix 1: Refresher on Basic Analysis.

The guidance has been written for use by masters-level research and monitoring and evaluation (M&E) staff who have some training or experience in using statistical software such as Microsoft Excel, STATA, or IBM's SPSS.

I.c. Structure and Content

The structure of this guidance reflects the three survey tools: (1) OVC caregivers; (2) children aged 0-9 years; and (3) children aged 10-17 years, in that we present three unique analysis plans. For each of these tools, we provide recommendations on how to conduct the analysis of all questions, following the sequence of questions in the questionnaire. Questions that reflect the core indicators for measuring OVC outcomes (in *Core Impact Program Indicators*, available at

http://www.cpc.unc.edu/measure/publications/ms-13-61) are marked with an asterisk (*) throughout this document. The questionnaires also include optional question sets (modules), which may be added depending on the objectives of your survey.[1] Please see the tool manual (available at http://www.cpc.unc.edu/measure/publications/ms-13-62) for more information on the types and structure of questions in the questionnaires.

When using this manual, consider the following:

After the question number, we include a phrase that summarizes the question, in place of the full question. Numbers in parentheses immediately after the question phrases refer to the other questions relevant for the analyses. Let's consider the example below:

Q103: Sex (Q006, 103)

- Frequency tabs
- Cross tabs by residence (Q006)

To conduct the analysis for question 103, we need data on sex and residence. These data are obtained from the answers to Q103 (sex) and Q006 (residence). In addition, the numbers of the corresponding questions are listed after the names of the variables, e.g., residence (Q006).

Some variables are part of a scale. For these, we have indicated how to analyze data to produce the scale, following the analysis of the questions on their own.

We have included some tables and figures throughout the plans for illustrative purposes. These tables and figures follow the suggested analyses. We provide options on how to present data; however, all tables and figures can be modified as needed, depending on the objectives and research questions of your particular study.

Although these analysis plans have been written for individuals with masters-level training in research or M&E, we could all use a refresher from time to time. We have included brief support information on data analysis and charting in the appendices. The data analysis refresher includes information on the types of variables, hypotheses testing, and some of the statistical tests you may want to use in analyzing data from the OVC survey tools.

I.d. General Recommendations for Conducting the Analyses

We have some overarching guidance for conducting the analyses:

[1] Some optional modules are still in development. We have noted placeholders for these in the analysis plans to which they pertain. As they are finalized, we will revise the analysis plans to include them.

1. **Always provide the total number (N) when presenting percentages.** In percentage calculations, identify and differentiate between the total number of people who responded to a particular question (N) and the actual denominator of interest. Paying attention to skip patterns will help you to identify the total N for your analysis. For example, the number of children who respond to the question, "Is it possible for a healthy-looking person to have the AIDS virus?" (Q704 in the Child Questionnaire for Ages 10-17 Years) includes only those who have heard of AIDS (Q701). (Note that there is a skip pattern after Q701 in the child questionnaire.) Because we are interested in the percentage of children who know that a healthy-looking person can have the AIDS virus among all respondents, our total N would be the total number of children who respond to Q701 ("Have you ever heard of an illness called AIDS?"). We would not consider the total number of children who responded to Q704 to calculate the percentage unless we are interested only in those people who have heard of AIDS. Please see table I.1.

Table I.1. Example of How to Identify N for the Analysis

	Number	Percentage (%)
Q701. Have you ever heard an illness called AIDS? If No: 801		
Yes	90	60
No	60	40
Total (N)	150	100
Q704. Is it possible for a healthy-looking person to have the AIDS virus?		
Yes	40	44.4
No	50	65.6
Total	90	100
Indicator "Percentage of children who know that it is possible for a healthy-looking person to have the AIDS virus"		26.67 (=number of "Yes" to Q704/total N to Q701*100=40/150*100)

Our conclusion from these data is that approximately 27 percent of the population knows that it is possible for a healthy-looking person to have the AIDS virus. Notice that in table I.1, the total number of children who responded to Q704 (90 respondents) is equal to the number of respondents who answered "yes" to Q701. If we had limited our denominator to the number of respondents to Q704, versus the number of respondents to Q701, our calculation would tell us the percentage of the population that knows that a healthy-looking person can have HIV, among those *who have heard of AIDS*. This latter indicator is less programmatically relevant than the first, because programs do not implement specific activities for people who have heard of AIDS versus those who have not heard of AIDS.

2. **Do not include missing values to the calculations** (*unless indicated otherwise*); instead, **present the total number of people who responded to a particular question**. For example, in a sample of 100 respondents enrolled in school, consider that 25 students reported missing school days during the last school week, 70 did not report missing any school days, and five did not provide an answer to this question (see table I.2 below). If we include missing values in our calculations, our total sample size for this question is 100 respondents. We would report that 25 percent of respondents missed school last week, 70 percent did not and 5 percent did not respond to the question. When we do not include missing to the calculations, we receive different results. In this case, our total sample size (our eligible sample) is 95 respondents. We would report that 26.32 percent (25 respondents out of 95 total) missed school last week and 73.68 percent (70 respondents out of 95 total) did not miss school.

Table I.2. Example of Including and Not Including Missing Values in Calculations

Variable	Missing Values Are Included in Calculations (*Not* Recommended)		Missing Are Not Included in Calculations (Recommended)	
Missed school days last week	Number	Percentage, %	Number	Percentage, %
Yes	25	25	25	26.32
No	70	70	70	73.68
No response	5	5		
Total	100	100	95	100

3. Where applicable, present the survey results:

- for the country as a whole and by province, state, or other sub-national region, sampling permitting;[2]
- by rural vs. urban location (i.e., residence), sampling permitting;
- by age groups;
- by sex (male vs. female); and
- by the type of the caregiver (biological parent vs. non-biological).

4. Present data for one point in time or two points in time, depending on the goals of your analysis. If you are conducting a situation analysis of the general population or a baseline assessment of program beneficiaries, you will present data for one point in time. If you are evaluating a program, you may be analyzing data obtained from at least two surveys conducted at

[2] When sampling is done at the national level, a sample represents the population of the whole country, not the population at sub-national or regional level. The analysis at sub-national or regional level can be conducted only if sampling for the study was done at sub-national or regional level.

two (or more) points in time, and possibly for both intervention and comparison groups. In this case you should present both Time 1 and Time 2 values for each question (and intervention and comparison group values) and test any change for significance, i.e. conduct a statistical test for significance. Please see appendix 1 for more information on tests for significance. Table I.3 provides an example of presenting knowledge of AIDS from two assessments conducted at different times. Please see section D in appendix 1 for more examples of presenting data when there is a comparison group and/or data from a second point in time.

Table I.3. Knowledge of AIDS

Percentage of children who have heard of AIDS by background characteristics, [country, year/assessment/time 1, year/assessment/time 2]				
	Assessment 1		Assessment 2	
Background characteristic	Have heard of AIDS	Number of children	Have heard of AIDS	Number of children
Age				
13-14				
15-17				
Sex				
Male				
Female				
Residence				
Urban				
Rural				
School Enrollment				
Enrolled in school				
Not enrolled in school				
Total				

II DATA ANALYSIS PLAN FOR THE MEASURE EVALUATION CAREGIVER QUESTIONNAIRE

Section 1: Household Schedule[3]

Population by age, sex, and residence (Q006, 101, 103-106)

Cross tabs by age groups (Q106), sex (Q103), and residence (urban vs. rural) (Q006). Show the distribution of the population (persons in the household at the time of the survey or usual residents – please specify) by five-year age groups, and sex and residence. See table II.1 for an example. To create a table like the one shown below, you should follow these steps: (a) create a new variable for age groups using existing data on age (Q106); (b) provide sex frequencies (Q103) by age group for the urban, rural and total population (Q006).

Table II.1. Population Surveyed by Age, Sex, and Residence

Percent distribution of the household population surveyed by five-year age groups, according to sex and residence, [country, year]

	Urban			Rural			All		
Age	Male	Female	Total	Male	Female	Total	Male	Female	Total
<5									
5-9									
10-14									
15-17									
18-24									
25-29									
30-34									
35-39									
40-44									
45-49									
50+									
Don't know/ missing									
Total %	100	100	100	100	100	100	100	100	100
Total N									
Source: MEASURE DHS, 2012									

[3] We suggest entering data for the household (HH) schedule section in a separate data file and setting up the file exactly as shown in the HH schedule section from the HH and caregiver questionnaire. The data from OVC questionnaires can be merged as needed using HH ID.

Household composition (Q006, 101-104, 106, 108-110)

Percent distribution of households by sex of head of household (Q102, 103) and by household size (Q104); mean size of the household (Q104), and percentage of households with orphans and foster children under 18 years of age (Q102, 106, 108-110), by residence (Q006). See Table II.2 for an example.

Table II.2. Household Composition

Percent distribution of households by sex of head of household, and by household size; mean size of household, and percentage of households with orphans and foster children under 18 years of age, according to residence, [country, year]

Characteristic	Residence		
	Urban	Rural	All
Household headship			
Male			
Female			
Missing			
Total	100	100	100
Number of usual members			
1			
2			
3			
4			
5			
6			
7			
8			
9+			
Total, %	100	100	100
Mean size of households			
Percentage of households with orphans and foster children under 18 years of age			
Foster children[1]			
Double orphans			
Single orphans[2]			
Foster and/or orphan children			
Number of households surveyed			

Note: Table is based on de jure household members, i.e., usual residents.
[1] Foster children are those under age 18 living in households with neither their mother nor their father present.
[2] Includes children with one dead parent and an unknown survival status of the other parent.

Source: MEASURE DHS, 2012

The prevalence of orphanhood by age groups and sex (Q006, 102, 103, 106, 108-110)

You may wish to present data on the prevalence of orphanhood in a table. An example of how to present these data is given in Table II.3.

Table II.3. The Prevalence of Orphanhood by Age Group and Sex

The prevalence of orphanhood by age group and sex [country, year]							
Children's orphanhood	Age group	All		Male		Female	
		%	N	%	N	%	N
Single orphans	0-4 <2 2-4 5-9 10-14 15-17 0-17						
Double orphans	0-4 <2 2-4 5-9 10-14 15-17 0-17						

Children's living arrangements and orphanhood (Q006, 102, 103, 106-110)

Please see table II.4 for an example of how to present information on children's living arrangements and orphanhood.

Table II.4. Children's Living Arrangements and Orphanhood

Percent distribution of de jure children under 18 years of age by living arrangements and survival status of parents, the percentage of children not living with a biological parent, and the percentage of children with one or both parents dead, according to background characteristics, [country, year]

Background characteristic	Living with both parents	Living with mother but not with father		Living with father but not with mother		Not living with either parent					Total	Percentage not living with a biological parent	Percentage with one or both parents dead[1]	Number of children
		Father alive	Father dead	Mother alive	Mother dead	Both alive	Only mother alive	Only father alive	Both dead	Missing information on father/mother				
Age														
<2											100.0			
2-4											100.0			
5-9											100.0			
10-14											100.0			
15-17											100.0			
Sex														
Male											100.0			
Female											100.0			
Residence														
Urban											100.0			
Rural											100.0			
Total <15											100.0			
Total <18											100.0			

Note: Table is based on de jure members, i.e., usual residents.
[1] Includes children with father dead, mother dead, both dead, and one parent dead but missing information on survival status of the other parent.

Source: MEASURE DHS, 2012

Q111: Death of any HH members (Q006, 111, Child questionnaire aged 10-17 years Q606, 608, 609)

- Frequency tabs
- Cross tabs by residence (Q006)
- Cross tabs with social support felt by a child (Q606, 608, 609, Child questionnaire aged 10-17 years)

Q112: Number of deaths in HH (Q006, 112)

- Mean and median number of deaths in HH for each of the categories (under 5 years, 5-17 years, 18-59, 60 years or older) by residence (Q006)

Q113: New HH members in the last 12 months (Q006, 113)

- Frequency tabs
- Cross tabs by residence (Q006)
- Optional: Cross tabs with household hunger conditions (Q301, 303, 305) or household hunger scale score (Q301-306). Having new HH members might affect HH food security; therefore, it might be interesting to examine this relationship. Note that you might need to categorize the household hunger scale score to "High" and "Low" to test this relationship.

Q114: Number of new HH members in the last 12 months (Q006, 114)

- Mean and median number of new HH members for each of the categories (under 5 years, 5-17 years, 18-59, 60 years or older) by residence (Q006)

Section 2: Background Information on Caregiver and Household

Q201: Sex of the respondent (Q006, 201)

- Frequency tabs
- Cross tabs by residence (Q006)

Q202: Age (Q006, 201, 202)

You would need to choose between responses to Q202 and Q203 if there is any disagreement in the responses. This should be fixed during data cleaning. Within this analysis plan, in most cases, we will refer to Q203 as the age variable.

- Mean and median by sex (Q201), residence (Q006)
- Frequency tabs for age groups (18-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50+) (Q202)

Q203: Age (Q006, 201, 203)

- Mean and median by sex (Q201), residence (Q006)
- Frequency tabs for age groups (18-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50+) (Q203)

Q204-205: Educational attainment (Q006, 201, 203-205)

Q204: Ever attended school (Q006, 201, 203, 204)

- Frequency tabs
- Cross tabs by sex (Q201), residence (Q006), and age group (Q203)

Q205a: Level of school attended (Q006, 204, 205a)

- Frequency tabs. Note that the total N is the number of caregivers responding to Q204 ("Have you ever attended school?")
- Cross tabs by residence (Q006)

Q205b: Highest grade completed (Q006, 201, 205b)

- Mean and median by sex (Q201), residence (Q006)

Educational attainment

Based on responses to Q204-205, create a new variable called "educational attainment" with the following values: no education, primary, secondary, more than secondary. Data refer to the highest level of education attended, whether or not that level was completed. Please see table II.5 for an example of how to present data on educational attainment.

You may want to present caregivers' education by sex. Please see table II.5.1 and table II.5.2 below for examples of how to present this information. For this, you would need to know the official age for entry into the primary level in the country of study, and number of usual years of primary and secondary education.

Table II.5. Educational Attainment

Percent distribution of caregivers by educational attainment, and median years completed, according to background characteristics, [country, year]								
Background characteristic	No education	Primary	Secondary	More than secondary	Missing	Total	Median years completed	Number of caregivers
Age								
18-24						100.0		
25-29						100.0		
30-34						100.0		
35-39						100.0		
40-44						100.0		
45-49						100.0		
50+						100.0		
Residence								
Urban						100.0		
Rural						100.0		
Sex								
Male						100.0		
Female						100.0		
Total						100.0		

Source: MEASURE DHS, 2012

Table II.5.1 Educational Attainment: Women

Percent distribution of women caregivers by highest level of schooling attended or completed, and median years completed, according to background characteristics, [country, year]

Background characteristic	Highest level of schooling								Median years completed	Number of caregivers
	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary	Missing	Total		
Age										
18-24								100.0		
25-29								100.0		
30-34								100.0		
35-39								100.0		
40-44								100.0		
45-49								100.0		
50+								100.0		
Residence										
Urban								100.0		
Rural								100.0		
Total								100.0		

[1] Completed X grade at the primary level
[2] Completed Y grade at the secondary level

Source: MEASURE DHS, 2012

Table II.5.2 Educational Attainment: Men

Percent distribution of men caregivers by highest level of schooling attended or completed, and median years completed, according to background characteristics, [country, year]

Background characteristic	Highest level of schooling								Median years completed	Number of caregivers
	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary	Missing	Total		
Age										
18-24								100.0		
25-29								100.0		
30-34								100.0		
35-39								100.0		
40-44								100.0		
45-49								100.0		
50+								100.0		
Residence										
Urban								100.0		
Rural								100.0		
Total 15-49								100.0		
Total 50-54 [59]								100.0		
Total 15-54 [59]								100.0		

[1] Completed X grade at the primary level
[2] Completed Y grade at the secondary level

Source: MEASURE DHS, 2012

Q206: Literacy (Q006, 201, 203, 206)

- Frequency tabs. In addition, it would be useful to present the percentage of literate caregivers. For this, you would need to create a variable for literacy: code those who can read a whole sentence or part of a sentence as literate and code those who cannot read at all as illiterate. Exclude from the analysis respondents for whom no card with the required language was available and respondents who are blind/visually impaired because their literacy cannot be gauged.

- Cross tabs by sex (Q201), by residence (Q006), by age groups (18-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50+) (Q203).

Q207: Marital status (Q006, 201, 207)

- Frequency tabs
- Cross tabs by sex (Q201), by residence (Q006)

Q208: Employment status (Q006, 201, 204, 205, 208)

- Frequency tabs
- Cross tabs by sex (Q201), by residence (Q006), by age group (Q203), by education (Q204, 205)

Q209: Working schedule (Q006, 201, 209)

- Frequency tabs. Note that the total N is the number of caregivers responding to Q208 ("Have you done any of these things or any other work?").
- Cross tabs by sex (Q201), by residence (Q006)

Q210: Payment structure (Q006, 201, 210)

- Frequency tabs. Note that the total N is the number of caregivers responding to Q208 ("Have you done any of these things or any other work?").
- Cross tabs by sex (Q201), by residence (Q006)

Q211*: Food related expenses (Q006)

- Frequency tabs
- Cross tabs by residence (Q006).

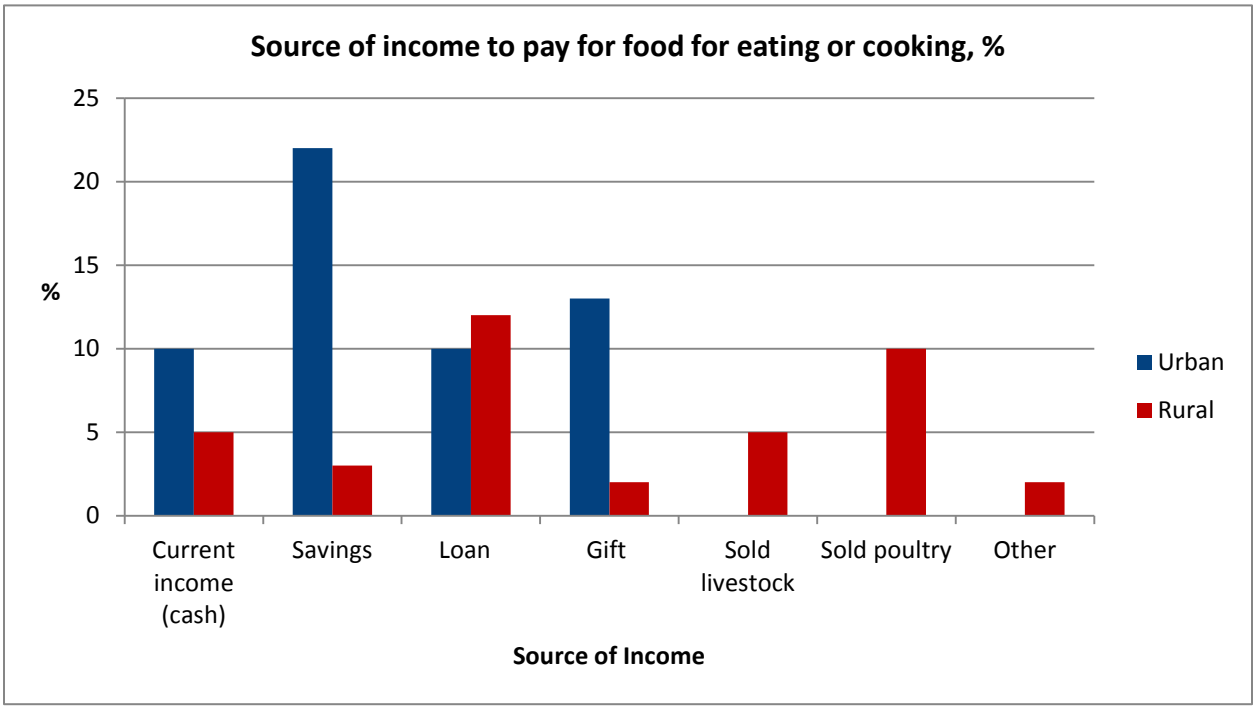


Figure II.1. Sources of income to pay for food for eating or cooking by residence.

Q212*: Able to pay for food related expenses (Q006, 208, 210)

- Frequency tabs. In presenting this indicator, it is useful to remind readers that the indicator value represents only those reporting such expenses in the last four weeks.
- Cross tabs by residence (Q006)
- Optional: cross tabs by employment status (Q208) and payment structure (Q210)

Q213*: Method of payment at last foodstuffs purchase (Q006, 208, 210)

- Frequency tabs
- Cross tabs by residence (Q006). Figure II.1 shows an example of how to present these data in a bar chart.
- Optional: cross tabs by employment status (Q208) and payment structure (Q210)

Q214*: School related expenses (Q006)

- Frequency tabs
- Cross tabs by residence (Q006)

Q215* Able to pay for school related expenses (Q006, 208, 210)

- Frequency tabs. In presenting this indicator, it is useful to remind readers that the indicator value represents only those reporting such expenses in the last four weeks.
- Cross tabs by residence (Q006)
- Optional: cross tabs by employment status (Q208) and payment structure (Q210)

Q216* Method of payment for last school expenses (Q006, 208, 210)

- Frequency tabs
- Cross tabs by residence (Q006). Figure II.2 shows an example of how to present these data in a bar chart.
- Optional: cross tabs by employment status (Q208) and payment structure (Q210)

Q217 Unexpected household related expenses (Q006)

- Frequency tabs
- Cross tabs by residence (Q006)

Q218 Able to pay for unexpected household expenses (Q006, 208, 210)

- Frequency tabs. In presenting this indicator, it is useful to remind readers that the indicator value represents only those reporting such expenses in the last four weeks.
- Cross tabs by residence (Q006)
- Optional: cross tabs by employment status (Q208) and payment structure (Q210)

Q219 Method of payment for last unexpected household expense (Q006, 208, 210)

- Frequency tabs.
- Cross tabs by residence (Q006). Figure II.2 shows an example of how to present these data in a bar chart.
- Optional: cross tabs by employment status (Q208) and payment structure (Q210)

Q220 Shelter (Q006)

- Frequency tabs.
- Cross tabs by residence (Q006).

OPTIONAL MODULE 1: Household Economic Status

Q1.1: Main material of floor (Q006)

- Frequency tabs
- Cross tabs by residence (Q006)

Q1.2: Main material of roof (Q006)

- Frequency tabs
- Cross tabs by residence (Q006)

Q1.3: Main material of exterior walls (Q006)

- Frequency tabs
- Cross tabs by residence (Q006)

Q1.4: Sense of financial security (Q201, Q006)

- Frequency tabs
- Cross tabs by sex (Q201), residence (Q006)

Q1.5: Asset schedule (Q006)

- Frequency tabs
- Cross tabs by residence (Q006)

Q1.6: Transport assets (Q006)

- Frequency tabs
- Cross tabs by residence (Q006)

Q1.7: Animal assets (Q006)

- Frequency tabs
- Cross tabs by residence (Q006)

Q1.8: Agricultural land ownership (Q006)

- Frequency tabs
- Cross tabs by residence (Q006)

Q1.9: Acres of agricultural land owned (Q006)

- Range, mean or median, by residence (Q006). Note: check distribution of values prior to calculating average. If data is highly skewed, use median or another measure of central tendency. Apply difference in means testing for urban/rural values.

Q1.10: Expenditure on food in the last month (Q006)

- Range, mean or median, by residence (Q006). Note: check distribution of values prior to calculating average. If data is highly skewed, use median or another measure of central tendency. Apply difference in means testing for urban/rural values.
- Optional: Create a new variable for household size. For example, this might be: households with less than 5 members, households with 5-8 members, households with more than 8 members. Check the distribution of the household size data to determine the most appropriate cut-offs. Calculate the average by household size (by location) and apply difference in means testing.

Q1.11: Comparison of food expenditure over time (Q113)

- Frequency tabs
- Cross tabs by new household members (Q113)

Q1.12: Reason for spending more

- Frequency tabs

Q1.13: Reason for spending less

- Frequency tabs

Q1.14: Expenditure on health care in the last month (Q006)

- Range, mean or median, by residence (Q006). Note: check distribution of values prior to calculating average. If data is highly skewed, use median or another measure of central tendency. Apply difference in means testing for urban/rural values.
- Optional: Create a new variable for household size (from the household schedule). For example, this might be: households with less than 5 members, households with 5-8 members, households with more than 8 members. Check the distribution of the household size data to determine the most appropriate cut-offs. Calculate the average by household size (by location) and apply difference in means testing.

Q1.15: Comparison of health care expenditure over time (Q113)

- Frequency tabs
- Cross tabs by new household members (Q113)

Q1.16: Reason for spending more

- Frequency tabs

Q1.17: Reason for spending less

- Frequency tabs

Q1.18: Expenditure on education in the last 12 months

- Range, mean or median, by residence (Q006). Note: check distribution of values prior to calculating average. If data is highly skewed, use median or another measure of central tendency. Apply difference in means testing for urban/rural values.
- Optional: Create a new variable for number of school-age children in household (from the household schedule). For example, this might be: households with 1-2 school-aged children, households with 3-5 school-aged children, households with more than 5 school-aged children. Check the distribution of the number of school-aged children in households to determine the most appropriate cut-offs. Calculate the average by number of school-aged children in household size (by location) and apply difference in means testing.

Q1.19: Comparison of education expenditure over time (Q113)

- Frequency tabs
- Cross tabs by new household members (Q113)

Q1.20: Reason for spending more

- Frequency tabs

Q1.21: Reason for spending less

- Frequency tabs

Q1.22: Expenditure on shelter in the last 12 months (Q006)

- Range, mean or median, by residence (Q006). Note: check distribution of values prior to calculating average. If data is highly skewed, use median or another measure of central tendency. Apply difference in means testing for urban/rural values.

Q1.23: Comparison of shelter over time (Q113)

- Frequency tabs
- Cross tabs by new household members (Q113)

Q1.24: Reason for spending more

- Frequency tabs

Q1.25: Reason for spending less

- Frequency tabs

PLACEHOLDER FOR OPTIONAL MODULE 2: Country-specific progress out of poverty index

Section 3: Household Food Security

OPTIONAL MODULE 3: Food diversity questions

OPTIONAL MODULE 3, Q 3.1: Household food diversity (Q006, 3.1)

To calculate the Household Dietary Diversity Score (HDDS) (FANTA, 2006):

1. Calculate the HDDS *variable* for each household. The value of this variable will range from 0 to 12. Values for A through L will be either "0" or "1" (re-code value "2" ("No") to "0", keep value "1" for "1" ("Yes") in the dataset).

   HDDS = Sum (A + B + C + D + E + F + G + H + I + J + K + L)

2. Calculate the average HDDS ***indicator*** for the sample population

   Average HDDS = Sum (HDDS) / Total number of households

3. Provide average HDDS by residence (Q006)

Q301*: No food to eat of any kind in the household because of lack of resources to get food in the past four weeks (Q006, 301)

- Frequency tabs
- Disaggregate by residence (Q006)
- Optional: cross tabs by number of household members (Q104, HH Schedule). Note that Q104 will need to be re-coded for the crosstabs.
- Optional: cross tabs with data reported by child 10-17 years (Q503, 505, 507, Child 10-17 years questionnaire). This comparison acts as a validity check. If caregiver reports no food to eat in HH (Q301), we'd expect to see children report food insecurity.

Q302: How often no food to eat of any kind in the household because of lack of resources to get food in the past four weeks (Q006, 301, 302)

- Frequency tabs. The denominator is the total number of people responding to Q301.
- Disaggregate by residence (Q006)

Q303: Go to sleep at night hungry because there was not enough food in the past four weeks (Q006, 303)

- Frequency tabs
- Disaggregate by residence (Q006)

- Optional: cross tabs by number of household members (Q104, HH Schedule). Note that Q104 will need to be re-coded for the crosstabs.

Q304: How often go to sleep at night hungry because there was not enough food in the past four weeks (Q006, 303, 304)

- Frequency tabs. The denominator is the total number of people responding to Q303.
- Disaggregate by residence (Q006)

Q305: Go a whole day and night without eating anything in the past four weeks (Q006, 305)

- Frequency tabs
- Disaggregate by residence (Q006)
- Optional: cross tabs by number of household members (Q104, HH Schedule). Note that Q104 will need to be re-coded for the crosstabs.

Q306: How often go a whole day and night without eating anything in the past four weeks (Q006, 305, 306)

- Frequency tabs. The denominator is the total number of people responding to Q305.
- Disaggregate by residence (Q006)

There are many ways in which data from questions 301-306 can be presented. For illustrative purposes, we present fictional data from Q301 in figure II.2 below. The figure below shows data collected at two points in time (e.g., baseline and endline).

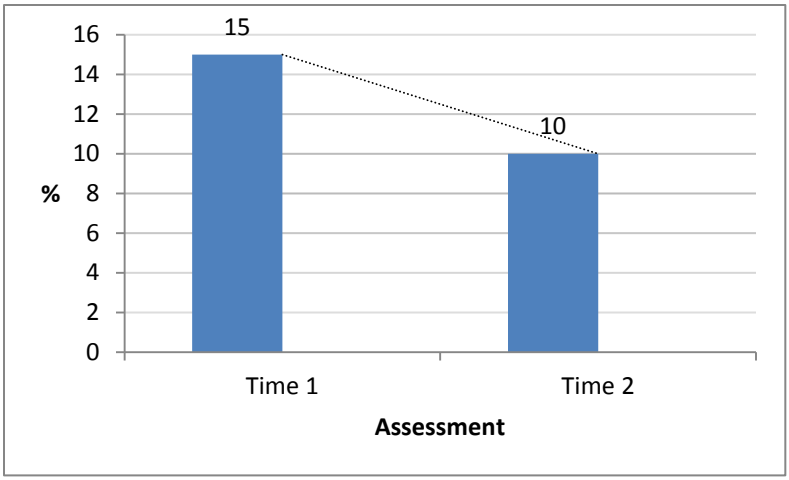


Figure II.2. The percent of households that had no food to eat of any kind in the HH because of lack of resources to get food in the past four weeks, over time.

Another way of presenting data from all questions, at one point in time, is depicted in Figure II.3 below.

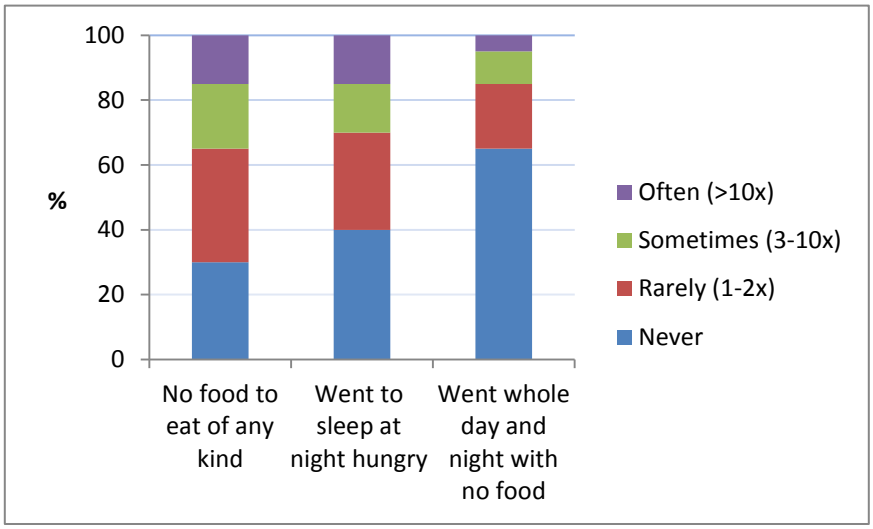


Figure II.3. The percent of households reporting food insecurity in last four weeks.

Also, for questions 301, 303, and 305, in addition to presenting the frequency tabs for each question separately, you may want to present the percentage of households that report one, two, and all three food insecurity conditions in last four weeks.

Household Hunger Scale score[4] (Coates, Swindale & Bilinsky., 2007; Deitchler, Ballard, Swindale & Coates, 2010)

Score Interpretation: A higher Household Hunger Scale score indicates higher HH hunger.

The Household Hunger Scale score is a continuous measure of the degree of household hunger in the past four weeks. To tabulate the Household Hunger Scale score, follow these steps:

1. Code frequency-of-occurrence as 0 for all cases where the answer to the corresponding occurrence question (Q301, 303, 305) was "no" (that is, currently coded as 2) (i.e., if Q301=2 then Q302=0, if Q303=2 then Q304 =0, if Q305=2 then Q306 =0).

2. Calculate a Household Hunger Scale score ***variable*** for each household by summing the frequency-of-occurrence for each question (Q302 + Q304 + Q306). The maximum score for a

[4] The three items, three frequencies (3I 3F) scale is based on the nine items Household Food Insecurity Access Scale (HFIAS). The sub-scale was developed by the Food and Nutrition Technical Assistance Project (FANTA): http://www.fantaproject.org/publications/hhs_2011.shtml.

household is 9 (if the household response to all 3 questions was "often," coded with response code of 3); the minimum score is 0 (if the household responded "no" to all occurrence questions, frequency-of-occurrence questions were skipped by the interviewer and subsequently coded as 0 by the data analyst). The higher the score, the more hunger the household experienced. The lower the score, the less hunger a household experienced (Coates et al., 2007).

3. Calculate the ***indicator***, average Household Hunger Scale score, using the household scores calculated in Step 2.

Average HH Hunger Scale Score = Sum of all Household Hunger Scale scores in the sample/Number of Household Hunger Scale scores in the sample (i.e., households)

4. Provide average HH Hunger Scale score by residence (Q006)

Section 4: Caregiver Well-being

Q401: Gone more than one day when sick or too tired to participate in daily activities in the last month (Q006, 201, 203, 301-306, 401)

- Frequency tabs
- Cross tabs by sex (Q201), by residence (Q006), age group (18-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50+) (Q203)
- Mean Household Hunger Scale score (Q301-306)

Q402: How often too sick or too tired to participate in daily activities (Q006, 201, 203, 402)

- Frequency tabs. Note that the total N is the number of caregivers responding to Q401 (In the last month, have you gone more than one day when you were too sick or too tired to participate in daily activities?)
- Cross tabs by sex (Q201), by residence (Q006), age group (18-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50+) (Q203)

Q403*-406*: Social Support (Q006, 201, 203, 403-406)

For each of the questions 403-406, provide:

- Frequency tabs
- Cross tabs by sex (Q201), by age group (18-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50+) (Q203), by residence (Q006)

You may wish to present data from any of the social support questions in a chart. An example of how to present these data is given in figure II.4.

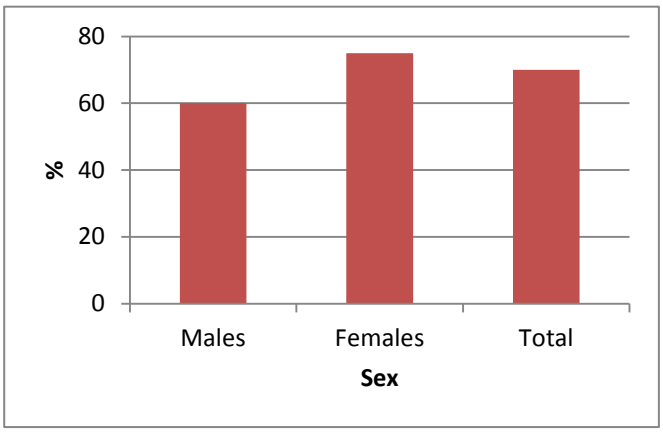


Figure II.4. The percent of caregivers who report having someone in life that shows love and affection, by sex.

Q407: Parental self-assessment of the ability to meet the needs of the children (Q006, 201, 203, 407, HH Schedule Q102, 104, 106, 109-110)

- Frequency tabs
- Cross tabs by sex (Q201), by residence (Q006), age group (18-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50+) (Q203), number of children in household (0, 1-2, 3-4, 5+) (Q104, 106, HH Schedule), whether household includes foster children and/or orphans (Q102, 109-110, HH Schedule)
- Mean by sex (Q201) and residence (Q006) (Note: re-code response items so that higher score indicates higher self-assessment, i.e. 1=5, 2=4, 3=3, 4=2, 5=1). An example of how to present these data is given in Figure II.5.

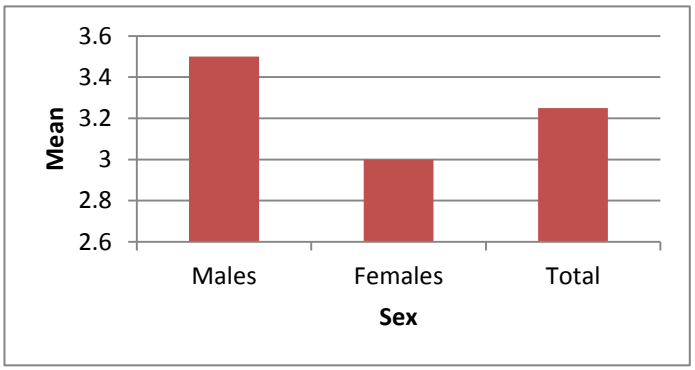


Figure II.5. Parental self-assessment of the ability to meet the needs of the children, by sex of the caregiver.

PLACEHOLDER FOR OPTIONAL MODULE 4: Perceptions and experience of child discipline

OPTIONAL MODULE 5: Gender attitudes

Q5.1: Partnership filter (no analysis)

Q5.2: Sex filter (no analysis)

Q5.3: Control over women's cash earnings (Q006, 203-205, 208, 210)

- Frequency tabs. Note that total N is the number of currently married women who receive cash earnings for employment (Q207, 210).
- Cross tabs by residence (Q006), age group (18-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50+) (Q203), education (Q204, 205). Please see table II.6 for an example of how to present these data.

Table II.6. Control over Women's Cash Earnings

Percent distribution of currently married women who receive cash earnings for employment by person who decides how wife's cash earnings are used, according to background characteristics, [country, year]

	Person who decides how wife's cash earnings are used:					
Background characteristic	Mainly wife	Wife and husband jointly	Mainly husband	Other	Total	Number of women
Age						
18-24					100.0	
25-29					100.0	
30-34					100.0	
35-39					100.0	
40-44					100.0	
45-49					100.0	
50+					100.0	
Residence						
Urban					100.0	
Rural					100.0	
Education						
No education					100.0	
Primary					100.0	
Secondary					100.0	
More than secondary					100.0	
Total					100.0	

Note: Education categories refer to the highest level of education attended, whether or not that level was completed.

Source: MEASURE DHS, 2012

Q5.4-5.7: Women's participation in decision making (Q006, 203-205, 208, 210, HH Schedule Q104, 106)

- Frequency tabs. Note that total N is the number of currently married women (Q207).
- Cross tabs by residence (Q006), age group (18-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50+) (Q203), education (Q204, 205), number of children in the household (Q104, 106, HH Schedule), employment (Q208, 210). Please see table II.7 for an example of how to present data on women's participation in decision making.

Table II.7. Women's Participation in Decision Making by Background Characteristics

Percentage of currently married women who usually make specific decisions either by themselves or jointly with their husband, by background characteristics, [country, year]

Background characteristic	Specific decisions				All four decisions	None of the four decisions	Number of women
	Woman's own health care	Making major household purchases	Making purchases for daily household needs	Visits to her family or relatives			
Age							
18-24							
25-29							
30-34							
35-39							
40-44							
45-49							
50+							
Employment (past 3 months)							
Not employed							
Employed for cash							
Employed, not for cash							
Number of living children							
0							
1-2							
3-4							
5+							
Residence							
Urban							
Rural							
Education							
No education							
Primary							
Secondary							
More than secondary							
Total							

Source: MEASURE DHS, 2012

Q5.8: Control over men's cash earnings (Q006, 203-205, 208, 210)

- Frequency tabs. Note that total N is the number of currently married men who receive cash earnings for employment (Q210).
- Cross tabs by residence (Q006), age group (18-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50+) (Q203), education (Q204, 205). Please see table II.8 for an example of how to present data on control over men's cash earnings.

Table II.8. Control over Men's Cash Earnings

Percent distribution of currently married men who receive cash earnings for employment by person who decides how husband's cash earnings are used, according to background characteristics, [country, year]

Background characteristic	Person who decides how husband's cash earnings are used:				Total	Number of men
	Mainly wife	Wife and husband jointly	Mainly husband	Other		
Age						
18-24					100.0	
25-29					100.0	
30-34					100.0	
35-39					100.0	
40-44					100.0	
45-49					100.0	
50+					100.0	
Residence						
Urban					100.0	
Rural					100.0	
Education					100.0	
No education					100.0	
Primary						
Secondary					100.0	
More than secondary					100.0	
Total					100.0	

Note: Education categories refer to the highest level of education attended, whether or not that level was completed.

Source: MEASURE DHS, 2012

Q5.9: Participation in decision making (Q 201)

- Frequency tabs. Note that total N is the number of respondents in a sample.
- Cross tabs by sex (Q201). Please see table II.9 for an example of how to present these data.

Table II.9. Participation in Decision Making

Percent distribution of women and men by person who they think should have a greater say in making decisions about five kinds of issues, [country, year]					
Decision	Wife	Wife and husband jointly	Husband	Total	Number
WOMEN					
Major household purchases				100.0	
Purchases of daily household needs				100.0	
Visits to wife's family or relatives				100.0	
What to do with the money wife earns				100.0	
How many children to have				100.0	
MEN					
Major household purchases				100.0	
Purchases of daily household needs				100.0	
Visits to wife's family or relatives				100.0	
What to do with the money wife earns				100.0	
How many children to have				100.0	

Source: MEASURE DHS, 2012

Q5.10: Attitude toward wife beating (Q006, 203-205, 208, 210, HH Schedule Q104, 106)

- Frequency tabs. Note that total N is the number of respondents in a sample.
- Cross tabs by residence (Q006), age group (18-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50+) (Q203), employment (Q208, 210), number of children in the household (Q104, 106, HH Schedule), education (Q204, 205).

You may want to present attitudes toward wife beating by sex. Please see table II.10.1 and table II.10.2 below for examples of how to present this information.

Table II.10.1. Attitude toward Wife Beating: Women

Percentage of male caregivers who agree that a husband is justified in hitting or beating his wife for specific reasons, by background characteristics, [country, year]							
	Husband is justified in hitting or beating his wife if she:					Percentage who agree with at least one specified reason	Number of women
Background characteristic	Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses to have sexual intercourse with him		
Age							
18-24							
25-29							
30-34							
35-39							
40-44							
45-49							
50+							
Employment							
Not employed							
Employed for cash							
Employed, not for cash							
Number of living children							
0							
1-2							
3-4							
5+							
Marital status							
Never married							
Married or living together							
Divorced/separated/widowed							
Residence							
Urban							
Rural							
Education							
No education							
Primary							
Secondary							
More than secondary							
Total							

Source: MEASURE DHS, 2012

Table II.10.2. Attitude toward Wife Beating: Men

Percentage of female caregivers who agree that a husband is justified in hitting or beating his wife for specific reasons, by background characteristics, [country, year]							
	Husband is justified in hitting or beating his wife if she:					Percentage who agree with at least one specified reason	Number of men
Background characteristic	Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses to have sexual intercourse with him		
Age							
18-24							
25-29							
30-34							
35-39							
40-44							
45-49							
50+							
Employment							
Not employed							
Employed for cash							
Employed, not for cash							
Number of living children							
0							
1-2							
3-4							
5+							
Marital status							
Never married							
Married or living together							
Divorced/separated/widowed							
Residence							
Urban							
Rural							
Education							
No education							
Primary							
Secondary							
More than secondary							
Total							

Source: MEASURE DHS, 2012

Q501: Heard of AIDS (Q006, 201, 203-205, 207, 501)

- Frequency tabs
- Cross tabs by sex (201), age group (18-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50+) (Q203), by marital status (Q207), by education (Q204, 205), by residence (Q006). An example of how to present these data is given in figure II.11.

Table II.11. Knowledge of AIDS

Percentage of caregivers who have heard of AIDS by background characteristics, [country, year]				
Background characteristic	Women		Men	
	Have heard of AIDS	Number of caregivers	Have heard of AIDS	Number of caregivers
Age				
18-24				
25-29				
30-34				
35-39				
40-44				
45-49				
50+				
Sex				
Male				
Female				
Marital status				
Married				
Cohabiting (but not married)				
Never been married				
Divorced/separated				
Widowed				
Residence				
Urban				
Rural				
Education				
No education				
Primary				
Secondary				
More than secondary				
Total				

Source: MEASURE DHS, 2012

Q502: HIV can be prevented by being faithful to one uninfected partner (Q006, 201, 203, 204, 205, 207, 502)

- Frequency tabs. Note that total N is the number of respondents to Q 501 ("Have you ever heard of an illness called AIDS?"), including those who responded that they have not heard of AIDS. This is programmatically relevant because programs seek to address knowledge gaps among the general population; they do not implement specific activities for people who have heard of AIDS versus those who have not heard of AIDS.
- Cross tabs by sex (Q201), age group (18-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50+) (Q203), by marital status (Q207), by residence (Q006), by education (Q204, 205).

Q503: HIV can be prevented by using a condom during sex (Q006, 201, 203, 204, 205, 207, 503)

- Frequency tabs. Note that total N is the number of respondents to Q 501 ("Have you ever heard of an illness called AIDS?"), including those who responded that they have not heard of AIDS.
- Cross tabs by sex (Q201), age group (18-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50+) (Q203), by marital status (Q207), by residence (Q006), by education (Q204, 205).

Q502, 503: Knowledge of HIV prevention methods (Q006, 201, 203, 204, 205, 207, 502, 503)

Together, questions 502 and 503 provide information on knowledge of HIV prevention methods. Table II.12 below provides an example of how to present these data for male and female caregivers surveyed.

Table II.12. Knowledge of HIV Prevention Methods

Percentage of caregivers who, in response to prompted questions, say that people can reduce the risk of getting the AIDS virus by using condoms every time they have sexual intercourse, and by having one sex partner who is not infected and has no other partners, by background characteristics, [country, year]								
	Women				Men			
	Percentage who say HIV can be prevented by:				Percentage who say HIV can be prevented by:			
Background characteristic	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Using condoms and limiting sexual intercourse to one uninfected partner[1,2]	Number of women	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Using condoms and limiting sexual intercourse to one uninfected partner[1,2]	Number of men
Age								
18-24								
25-29								
30-34								
35-39								
40-44								
45-49								
50+								
Marital status								
Married								
Cohabiting (but not married)								
Never been married								
Divorced/separated								
Widowed								
Residence								
Urban								
Rural								
Education								
No education								
Primary								
Secondary								
More than secondary								
Total								

[1] Using condoms every time they have sexual intercourse
[2] Partner who has no other partners

Source: MEASURE DHS, 2012

Q502-506: Comprehensive knowledge about AIDS (Q006, 201, 203, 205, 207, 502-506)

- Frequency tabs
- Cross tabs by sex (Q201), age group (<18, 18-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75+) (Q203), by marital status (Q207), by residence (Q006), by education (Q204, 205). (See table II.13 for an example.) Note that the total N is the number of respondents who responded to Q501 ("Have you ever heard of an illness called AIDS?"), including those who responded that they have not heard of AIDS.

Table II.13. Comprehensive Knowledge about AIDS

Percentage of caregivers who say that a healthy-looking person can have the AIDS virus and who, in response to prompted questions, correctly reject local misconceptions about transmission or prevention of the AIDS virus, and the percentage with a comprehensive knowledge about AIDS by background characteristics, [country, year]

	Percentage of caregivers who say that:					
Background characteristic	A healthy-looking person can have the AIDS virus	The AIDS virus cannot be transmitted by mosquito bites	A person cannot become infected by sharing food with a person who has AIDS	Percentage who say that a healthy-looking person can have the AIDS virus and who reject the two most common local misconceptions[1]	Percentage with a comprehensive knowledge about AIDS[2]	Number of caregivers
Age						
18-24						
25-29						
30-34						
35-39						
40-44						
45-49						
50+						
Sex						
Male						
Female						
Marital status						
Married						
Cohabiting (but not married)						
Never been married						
Divorced/separated						
Widowed						
Residence						
Urban						
Rural						
Education						
No education						
Primary						
Secondary						
More than secondary						
Total						

[1] Two most common misconceptions: The AIDS virus CAN be transmitted by mosquito bites. A person CAN become infected by sharing food with a person who has the AIDS virus.

[2] Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about transmission or prevention of the AIDS virus.

Source: MEASURE DHS, 2012

Q507: Knowledge of prevention of mother-to-child transmission of HIV (Q006, 201, 203-205, 207, 507)

- Frequency tabs. Note that total N is the number of respondents who responded to Q 501 ("Have you ever heard of an illness called AIDS?"), including those who responded that they have not heard of AIDS.
- Cross tabs by age (18-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50+) (Q203), marital status (Q207), education (Q204, 205), residence (Q006), and:
    1. Percentage of caregivers who know that the virus that causes AIDS can be transmitted from a mother to her baby during pregnancy
    2. Percentage of caregivers who know that the virus that causes AIDS can be transmitted from a mother to her baby during delivery
    3. Percentage of caregivers who know that the virus that causes AIDS can be transmitted from a mother to her baby by breastfeeding
- Percentage of respondents who indicate any one, any two, and all three ways for transmission of HIV from a mother to her baby, by sex (Q201), age group (18-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50+) (Q203) and residence (Q006)

Q508: Ever had HIV test (Q006, 201, 203, 205, 207, 508)

- Frequency tabs. Note that total N is the number of respondents who responded to Q 501 ("Have you ever heard of an illness called AIDS?"), including those who responded that they have not heard of AIDS.
- Cross tabs by sex (Q201), age group (18-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50+) (Q203), by marital status (Q207), by residence (Q006), by education (Q204, 205).

Q509: Know the results of HIV test (Q006, 201, 203-205, 207, 509)

- Frequency tabs. Note: to calculate the percentage of respondents who received an HIV test and who know their results, the numerator (n) is number of respondents who answer "Yes" to this question (those who ever tested and know their results) and the denominator (N) is a total number of respondents in the sample.
- Cross tabs by sex (Q201), age group (18-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50+) (Q203), by marital status (Q207), by residence (Q006), by education (Q204, 205).

Q508, 509: Coverage of prior HIV testing (Q006, 201, 203-205, 207, 508, 509)

Together, questions 508 and 509 provide information on coverage of prior HIV testing. Table II.14 below provides an example of how to present coverage of prior HIV testing for all caregivers surveyed.

Table II.14. Coverage of Prior HIV Testing: Caregivers

Percentage of caregivers who know where to get an HIV test, percent distribution of caregivers by testing status and by whether they received the results of the last test, the percentage of caregivers ever tested, according to background characteristics, [country, year]							
	Percentage who know where to get an HIV test	Percent distribution of caregivers by testing status and by whether they received the results of the last test				Percentage ever tested	Number of caregivers
Background characteristic		Ever tested and received results	Ever tested, did not receive results	Never tested[1]	Total		
Age							
18-24					100.0		
25-29					100.0		
30-34					100.0		
35-39					100.0		
40-44					100.0		
45-49					100.0		
50+					100.0		
Sex							
Male					100.0		
Female					100.0		
Marital status							
Married					100.0		
Cohabiting (but not married)					100.0		
Never been married					100.0		
Divorced/separated					100.0		
Widowed					100.0		
Residence							
Urban					100.0		
Rural					100.0		
Education							
No education					100.0		
Primary					100.0		
Secondary					100.0		
More than secondary					100.0		
Total					100.0		

[1] Includes “don't know/missing”

Source: MEASURE DHS, 2012

Q510: Know of a place where people can go to get tested for the AIDS virus (Q006, 201, 203-205, 207, 510)

- Frequency tabs. Note that total N is the number of respondents who responded to Q 501 ("Have you ever heard of an illness called AIDS?").
- Cross tabs by sex (Q201), age group (18-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50+) (Q203), by marital status (Q207), by residence (Q006), by education (Q204, 205).

Q511: Adult support of education about condom use to prevent AIDS (Q006, 201, 203-205, 207, 511)

- Frequency tabs. Note that total N is the number of respondents who responded to Q 501 ("Have you ever heard of an illness called AIDS?"), including those who responded that they have not heard of AIDS.
- Cross tabs by sex (Q201), age group (<18, 18-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75+) (Q203), by marital status (Q207), by residence (Q006), by education (Q204, 205). Please see table II.15 for an example of how to present these data.

Table II.15. Adult Support of Education about Condom Use to Prevent AIDS

Percentage of caregivers who agree that children age 12-14 years should be taught about using a condom to avoid getting AIDS, by background characteristics [country, year]				
Background characteristic	Women		Men	
	Percentage who agree	Number of women	Percentage who agree	Number of men
Age				
18-24				
25-29				
30-34				
35-39				
40-44				
45-49				
50+				
Marital status				
Married				
Cohabiting (but not married)				
Never been married				
Divorced/separated				
Widowed				
Residence				
Urban				
Rural				
Education				
No education				
Primary				
Secondary				
More than secondary				
Total				

Source: MEASURE DHS, 2012

OPTIONAL MODULE 6: HIV/AIDS Attitudes

Q 6.1-6.4: HIV/AIDS attitudes (Q006, 6.1-6.4, 201, 203-205, 207)

- Frequency tabs. Note that total N is the number of respondents who have heard of AIDS (Q501).
- Cross tabs by sex (Q201), by age group (18-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50+) (Q203), by marital status (Q207), by residence (Q006), by education (Q204, 205). Please see Table II.16 for an example of how to present data on caregivers' attitudes toward people living with HIV/AIDS.

Table II.16. Accepting Attitudes toward People Living with HIV/AIDS

Among caregivers who have heard of AIDS, percentage expressing specific accepting attitudes toward people with HIV/AIDS, by background characteristics, [country, year]

	Percentage of caregivers who:					
Background characteristic	Are willing to care for a family member with AIDS in the respondent's home	Would buy fresh vegetables from shopkeeper who has the AIDS virus	Say that a female teacher who has the AIDS virus but is not sick should be allowed to continue teaching	Would not want to keep secret that a family member got infected with the AIDS virus	Percentage expressing accepting attitudes on all four indicators	Number of caregivers who have heard of AIDS
Age						
18-24						
25-29						
30-34						
35-39						
40-44						
45-49						
50+						
Sex						
Male						
Female						
Marital status						
Married						
Cohabiting (but not married)						
Never been married						
Divorced/separated						
Widowed						
Residence						
Urban						
Rural						
Education						
No education						
Primary						
Secondary						
More than secondary						
Total						

Source: MEASURE DHS, 2012

Section 6: Access to HIV Prevention, Care, and Support

Q601: Access to items or services for anyone in the HH (Q006, 601)

- Mean number of services received by residence (Q006) (Note: if any cash source is indicated, consider item for cash (item a) as "Yes.")

Q601a: Access to items or services for anyone in the HH (Q006, 201, 601a)

- Frequency tabs (cash: Yes, No)
- Cross tabs (cash: Yes, No) by sex (Q201), residence (Q006)
- Frequency tabs for a source of cash (government, nongovernmental organization [NGO], friends/family, other). Note that multiple responses are allowed for this question. Therefore, the responses will not tally to 100 percent. For example, 50 percent of caregivers may indicate that they received cash from friends and family and 60 percent may respond that they received cash from government. The sum of these services is greater than 100 percent.
- If cash is received, calculate total cash received for each of the HHs and present mean cash received among all HHs by residence (Q006).

Q601b-o: Access to items or services for anyone in the HH (Q006, 201, 601b-601o)

- Frequency tabs. Note that multiple responses are allowed for this question. Therefore, the responses will not tally to 100 percent. For example, 50 percent of caregivers may indicate that they received free food or vitamins, 60 percent may respond that they received a mosquito net, and 20 percent may state that they received an HIV test. The sum of these services is greater than 100 percent.
- Cross tabs by sex (Q201), residence (Q006)

III DATA ANALYSIS PLAN FOR THE MEASURE EVALUATION CHILD WELL-BEING QUESTIONNAIRE: AGES 0-9 YEARS

Section 1: Child Health and Protection

Q103*: Sex of the child (Q006, 103)

- Frequency tabs
- Cross tabs by residence (Q006)

Q104: Age (Q006, 103, 104)

You need to choose between responses to Q104 and Q105 if there is any disagreement in the responses (differences should have been resolved during data cleaning). Within this analysis plan, in most cases, we will refer to Q105 for the Age variable.

- Mean and median by sex (Q103), residence (Q006)
- Frequency tabs for age groups (<5, 5-9) (Q104)

Q105*: Age (Q006, 103, 105)

- Mean and median by sex (Q103), residence (Q006)
- Frequency tabs for age groups (<5, 5-9) (Q105)
- Cross tabs by sex (Q103), by residence (Q006). Please see table III.1 for an example of how to present these data.

Table III.1. Demographic Information of Children Aged 0-9

	Urban			Rural			Total		
Age	Male	Female	Total	Male	Female	Total	Male	Female	Total
<5									
5-9									
Total, %	100	100	100	100	100	100	100	100	100
Total, #									

Q106: Reported Health Status (Q006, 103, 105, 106, Household Schedule Q107)

- Frequency tabs
- Cross tabs by sex (Q103), by age group (<5, 5-9) (Q105), by residence (Q006), by type of caregiver (Q107, Household Schedule). Please see table III.2 for an example of how to present these data.

Table III.2 Child Health Status, as Reported by Caregiver

Background characteristic	Child Health Status						
	Excellent	Very good	Good	Fair	Poor	Total	Number of children
Age							
<5						100	
5-9						100	
Sex							
Male						100	
Female						100	
Residence							
Urban						100	
Rural						100	
Type of caregiver							
Biological parent						100	
Not biological parent						100	
Total							

Data from the health status question can be presented in many ways. An example of how to present these data in a pie chart is given in figure III.1.

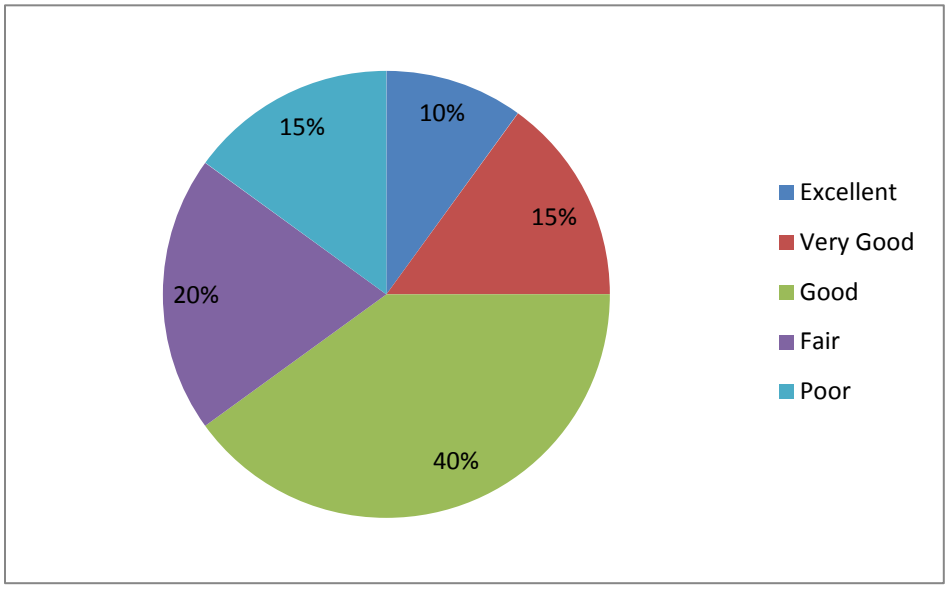


Figure III.1 Child's health status.

An example of how to present data on child's health status by type of caregiver using a bar chart is given in figure III.2.

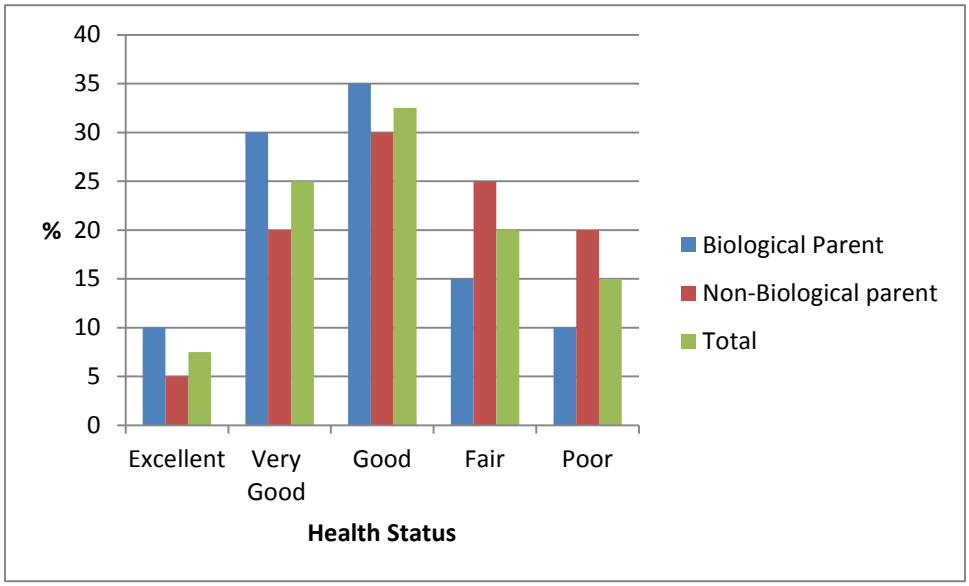


Figure III.2 Child's health status by type of caregiver.

Q107*: Too sick to participate in daily activities in last two weeks (Q006, 103, 105, 107, Household Schedule Q107)

- Frequency tabs
- Cross tabs by sex (Q103), by age group (<5, 5-9) (Q105), by residence (Q006), by type of caregiver (Q107, Household Schedule).Please see table III.3 for an example of how to present these data.

Table III.3. Percent of Children Too Sick to Participate in Daily Activities in the Last Two Weeks

Percentage of children who were too sick to participate in daily activities in last two weeks by background characteristics, [country, year]		
Background characteristic	Percentage	Number of children
Age		
<5		
5-9		
Sex		
Male		
Female		
Residence		
Urban		
Rural		
Type of caregiver		
Biological parent		
Non-biological parent		
Total		

Q108: Have a disability (Q006, 103, 105, 107, 108, Household Schedule Q107)

- Frequency tabs
- Cross tabs by sex (Q103), by age group (<5, 5-9) (Q105), by residence (Q006), by type of caregiver (Q107, Household Schedule)
- Cross tabs with recent ability to participate in daily activities (Q107)

Q109: Type of disability (Q006, 103, 105, 108, 109)

- Frequency tabs. Data may be presented in a pie chart of all people with disabilities (N from Q109) and as a table with the percent of people who are disabled by type (N from Q108).
- Cross tabs by sex (Q103), by age group (<5, 5-9) (Q105), by residence (Q006)

Q110*: Report having a birth certificate (Q006, 110, 103, 105, 111, Household Schedule Q107)

- Frequency tabs
- Cross tabs by sex (Q103), by age group (<5, 5-9) (Q105), by residence (Q006), by type of caregiver (Q107, Household Schedule)
- Cross tabs with Q111 (birth certificate is seen/observed)

Q111*: Birth certificate is seen (Q006, 103, 105, 110, 111, Household Schedule Q107)

- Frequency tabs. Note that total N is the number of respondents who responded to Q110 (Does [name] have a birth certificate?).
- Cross tabs by sex (Q103), by age group (<5, 5-9) (Q105), by residence (Q006), by type of caregiver (Q107, Household Schedule)

Together, questions 110 and 111 provide information on percent of children who have a birth certificate. Table III.4 below provides an example of how to present these data for all children surveyed.

Table III.4. Percent of Children with a Birth Certificate

Percentage of children who have birth certificate by background characteristics, [country, year]			
Background characteristic	Report having birth certificate	Birth certificate is seen[1]	Number of children
Age			
<5			
5-9			
Sex			
Male			
Female			
Residence			
Urban			
Rural			
Type of caregiver			
Biological parent			
Non-biological parent			
Total			

[1] Birth certificate seen is a proportion of all reports, i.e. the column on number of children provides with denominator for this variable in the table.

Q112: Age filter (no analysis)

Q113*: Have a vaccination card (Q006, 103, 113, Household Schedule Q107)

- Frequency tabs
- Cross tabs by sex (Q103), by residence (Q006), by type of caregiver (Q107, Household Schedule)

Q114*: Documented vaccination record (Q006, 103, 114, Caregiver Questionnaire Q204, 205)

- Frequency tabs
- Cross tabs by sex (Q103), by residence (Q006), by caregiver's education (Q204, 205, Caregiver Questionnaire)

Q115*-Q123*: Probing questions for vaccinations (Q006, 103, 115-123, Caregiver Questionnaire Q204, 205)

- Frequency tabs
- Cross tabs by sex (Q103), by residence (Q006), by caregiver's education (Q204, 205, Caregiver Questionnaire)

Please see tables III.5 and III.6 below for examples of how to present information on child vaccinations.

Table III.5. Child Vaccinations, by Source of Information

Percentage of children aged 12 months and older who received specific vaccines at any time before the survey, by source of information (confirmed with card or not), [country, year]												
Source of information	BCG	DPT			Polio[1]				Measles	All basic vaccinations[2]	No vaccinations	Number of children
		1	2	3	0	1	2	3				
Vaccinated at any time before survey												
Received, confirmed with card												
Received, unconfirmed												
Either source												

[1] Polio 0 is the polio vaccination given at birth
[2] BCG, measles, and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth)

Source: MEASURE DHS, 2012

Table III.6. Child Vaccinations, by Background Characteristics

Percentage of children aged 12 months and older who received specific vaccines at any time before the survey (confirmed with card as well as not), and percentage with a vaccination card, by background characteristics, [country, year]													
Background characteristic	BCG	DPT			Polio[1]					All basic vaccinations[2]	No vaccinations	Percent- age with a vaccination card seen	Number of children
		1	2	3	0	1	2	3	Measles				
Sex													
Male													
Female													
Residence													
Urban													
ural													
Caregiver's education													
No education													
Primary													
Secondary													
More than secondary													
Total													

[1] Polio 0 is the polio vaccination given at birth
[2] BCG, measles, and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth)

Source: MEASURE DHS, 2012

Q124*: Prevalence of diarrhea (Q006, 103, 104, 124, Household Schedule Q107, Caregiver Questionnaire Q204, 205)

- Frequency tabs
- Cross tabs by sex (Q103), by age group in months (<6, 6-11, 12-23, 24-35, 36-47, 48-59) (Q104), by residence (Q006), by caregiver's education (Q204, 205, Caregiver Questionnaire), by type of caregiver (Q107, Household Schedule). Please see table III.7 below for an example of how to present information on prevalence of diarrhea.

Table III.7. Prevalence of Diarrhea among Children under 5 Years

Percentage of children under age five who had diarrhea in the two weeks preceding the survey, by background characteristics, [country, year]		
Background characteristic	Diarrhea in the two weeks preceding the survey	Number of children
Age in months		
<6		
6-11		
12-23		
24-35		
36-47		
48-59		
Sex		
Male		
Female		
Residence		
Urban		
Rural		
Caregiver's education		
No education		
Primary		
Secondary		
More than secondary		
Total		

Source: MEASURE DHS, 2012

An example of how to present data on prevalence of diarrhea at two points in time is given in figure III.3.

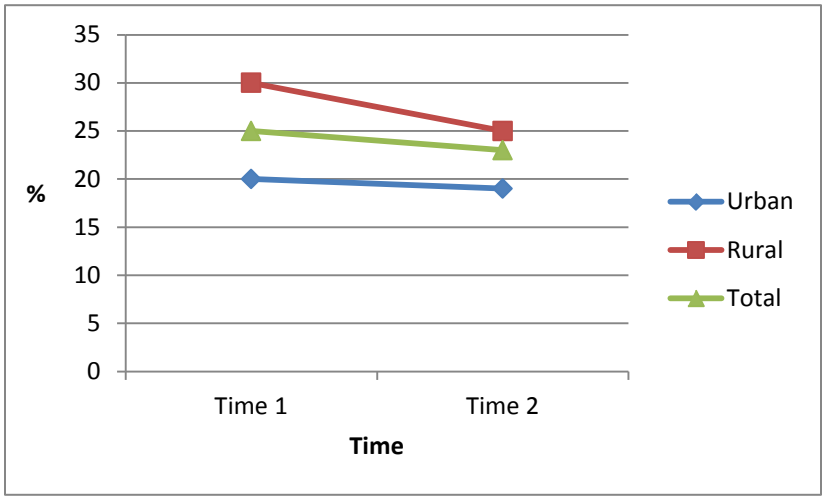


Figure III.3. Prevalence of diarrhea among children under 5, over time.

OPTIONAL MODULE 1: Diarrhea (extended)

Q1.1: Treatment sought for diarrhea (Q006, 1.1, 103, 124, Household Schedule Q107, Caregiver Questionnaire Q204, 205)

- Frequency tabs
- Cross tabs by sex (Q103), by residence (Q006), by caregiver's education (Q204, 205, Caregiver Questionnaire), by type of caregiver (Q107, Household Schedule)

Q1.2: From where treatment sought for diarrhea (Q006, 1.1, 1.2, 103, 124, Household Schedule Q107, Caregiver Questionnaire Q204, 205)

- Frequency tabs. Note that total N is the number of respondents who responded to Optional Module 1 Q1.1.
- Cross tabs by sex (Q103), by residence (Q006), by caregiver's education (Q204, 205, Caregiver Questionnaire), by type of caregiver (Q107, Household Schedule)

Q1.3: Fluids taken (Q006, 1.3, 103, 124, Household Schedule Q107, Caregiver Questionnaire 204, 205)

- Frequency tabs
- Cross tabs by sex (Q103), by residence (Q006), by caregiver's education (Q204, 205, Caregiver Questionnaire), by type of caregiver (Q107, Household Schedule)

Q125*: Prevalence of fever (Q006, 103, 104, 125, Household Schedule Q107, Caregiver Questionnaire Q204, 205)

- Frequency tabs
- Cross tabs by sex (Q103), by age group in months (<6, 6-11, 12-23, 24-35, 36-47, 48-59) (Q104), by residence (Q006), by caregiver's education (Q204, 205, Caregiver

Questionnaire), by type of caregiver (Q107, Household Schedule). Please see figure III.4 for an example of how to present these data.

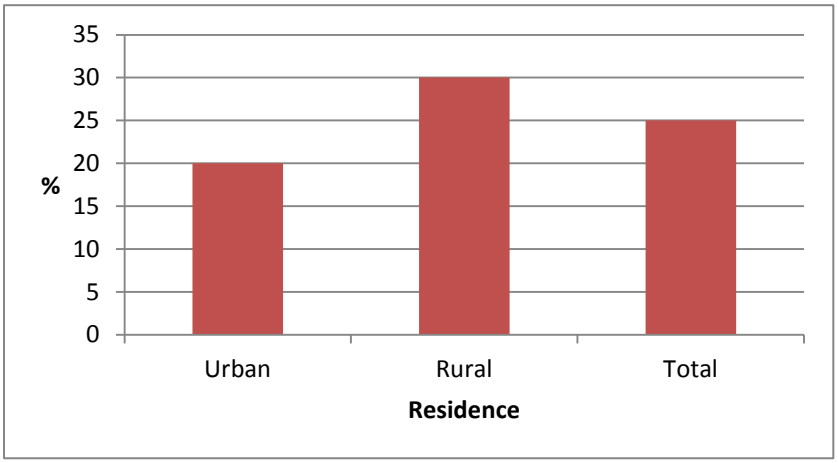


Figure III.4. Percent of children <5 years with fever in the two weeks preceding the survey, by residence.

OPTIONAL MODULE 2: Fever (extended)

Q2.1: Treatment sought for fever (Q006, 2.1, 103, 125, Household Schedule Q107, Caregiver Questionnaire Q204, 205)

- Frequency tabs
- Cross tabs by sex (Q103), by residence (Q006), by caregiver's education (Q204, 205, Caregiver Questionnaire), by type of caregiver (Q107, Household Schedule)

Q2.2: From where treatment sought for fever (Q006, 2.1, 2.2, 103, 125, Household Schedule Q107, Caregiver Questionnaire Q204, 205)

- Frequency tabs. Note that total N is the number of respondents who responded to Module 2 Q2.1.
- Cross tabs by sex (Q103), by residence (Q006), by caregiver's education (Q204, 205, Caregiver Questionnaire), by type of caregiver (Q107, Household Schedule)

Q2.3: Drugs taken for fever (Q006, 2.3, 103, 125, Household Schedule Q107, Caregiver Questionnaire 204, 205)

- Frequency tabs
- Cross tabs by sex (Q103), by residence (Q006), by caregiver's education (Q204, 205, Caregiver Questionnaire), by type of caregiver (Q107, Household Schedule)

Q126: Number of days a child left alone for more than one hour in the past week (Q006, 103, 126, Household Schedule Q107)

- Range and mean number of days by sex (Q103), by residence (Q006), by type of caregiver (Q107, Household Schedule)

Q127: Number of days a child left in the care of another child for more than one hour in the past week (Q006, 103, 127, Household Schedule Q107)

- Range and mean number of days by sex (Q103), by residence (Q006), by type of caregiver (Q107, Household Schedule)

Q128: Slept under a mosquito net last night (Q006, 103, 105, 128, Household Schedule Q107)

- Frequency tabs
- Cross tabs by sex, by age group (<5, 5-9), by residence (Q006), by type of caregiver (Q107, Household Schedule)

Q129: Child ever had HIV test (Q006, 103, 105, 129, Household Schedule Q107, Caregiver Questionnaire Q204, 205)

- Frequency tabs

- Cross tabs by sex (Q103), by age group (<5, 5-9) (Q105), by residence (Q006), by caregiver's education (Q204, 205, Caregiver Questionnaire), by type of caregiver (Q107, Household Schedule)

Q130: Caregiver knows the results of child's HIV test (Q006, 103, 105, 129, 130, Household Schedule Q107, Caregiver Questionnaire Q204, 205)

- Frequency tabs. Note, to calculate the percentage of children who received an HIV test and whose caregiver knows their results, the numerator (n) is number of respondents who answer "Yes" to Q130 and the denominator (N) is the total number of children aged 0-9 years in the sample.
- Cross tabs by sex (Q103), by age group (<5, 5-9) (Q105), by residence (Q006), by caregiver's education (Q204, 205, Caregiver Questionnaire), by type of caregiver (Q107, Household Schedule)

Q129, 130: Coverage of HIV testing (Q006, 103, 105, 129, 130)

Together, questions 129 and 130 provide information on coverage of HIV testing. Table III.8 below provides an example of how to present coverage of HIV testing for all children surveyed. In addition, we have included two charts (figure III.5, figure III.6) to show some of the ways to present data on prior HIV testing.

Table III.8. Coverage of Prior HIV Testing among Children Aged 0-9 Years

Percent distribution of children by testing status and by whether caregiver received the results of the last test, the percentage of children ever tested, according to background characteristics, [country, year]						
Background characteristic	Percent distribution of children by testing status and by whether caregiver received the results of the last test				Percentage ever tested	Number of children
	Ever tested and received results	Ever tested, did not receive results	Never tested[1]	Total		
Age						
<5				100.0		
5-9				100.0		
Sex						
Male				100.0		
Female				100.0		
Residence						
Urban				100.0		
Rural				100.0		
Total				100.0		

[1] Includes "don't know/missing."

Source: MEASURE DHS, 2012

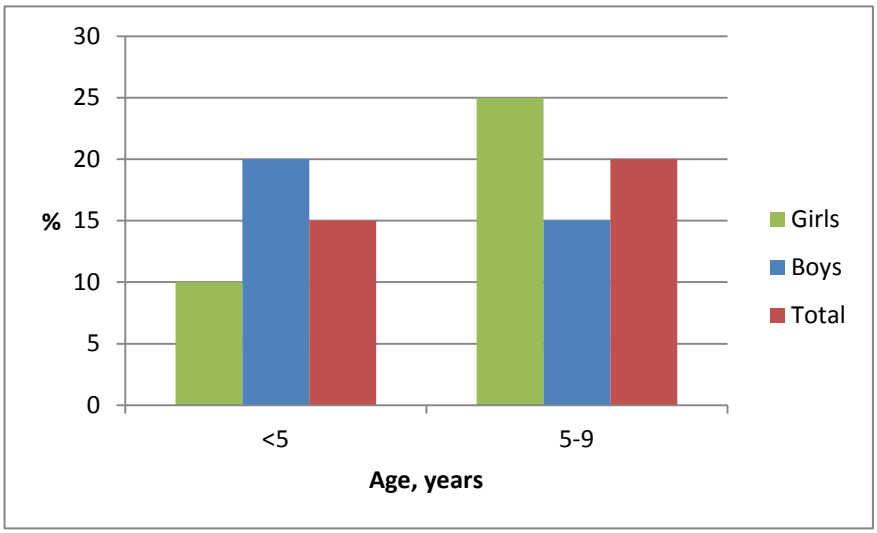


Figure III.5. Percentage of children who had a prior HIV test and received results, by sex and age group.

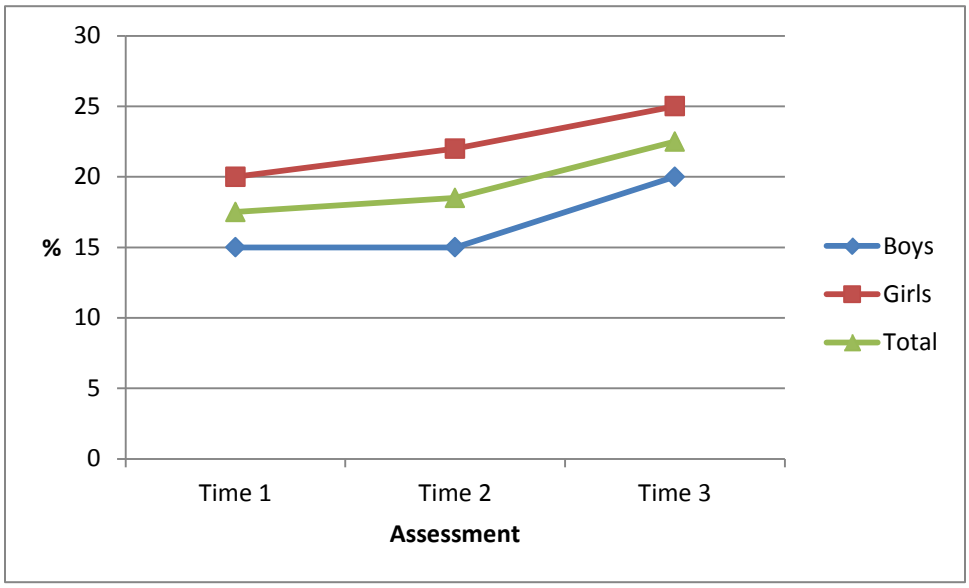


Figure III.6. Percentage of children 0-9 years old who have tested for HIV and received results, by sex, over time.

Section 2: Child Education and Work

Q201: Age filter (no analysis)

Q202*: School enrollment (Q006, 103, 105, 202, Household Schedule Q107, Caregiver Questionnaire Q204, 205)

- Frequency tabs
- Cross tabs by sex (Q103), by age (5, 6, 7, 8, 9 years old) (Q105), by residence (Q006), by caregiver's education (Q204, 205, Caregiver Questionnaire), by type of caregiver (Q107, Household Schedule). Please see table III.9 for an example of how to present these data.

Table III.9. School Enrollment

Percentage of children enrolled in school for school-aged children by background characteristics, [country, year]				
Background characteristic	Boys	Girls	Total	Number of children
Age				
5				
6				
7				
8				
9				
Residence				
Urban				
Rural				
Type of caregiver				
Biological parent				
Non-biological parent				
Caregiver's education				
No education				
Primary				
Secondary				
More than secondary				
Total				

You may wish to present data on school enrollment in a chart. An example of how to present these data by the type of caregiver is given in figure III.7.

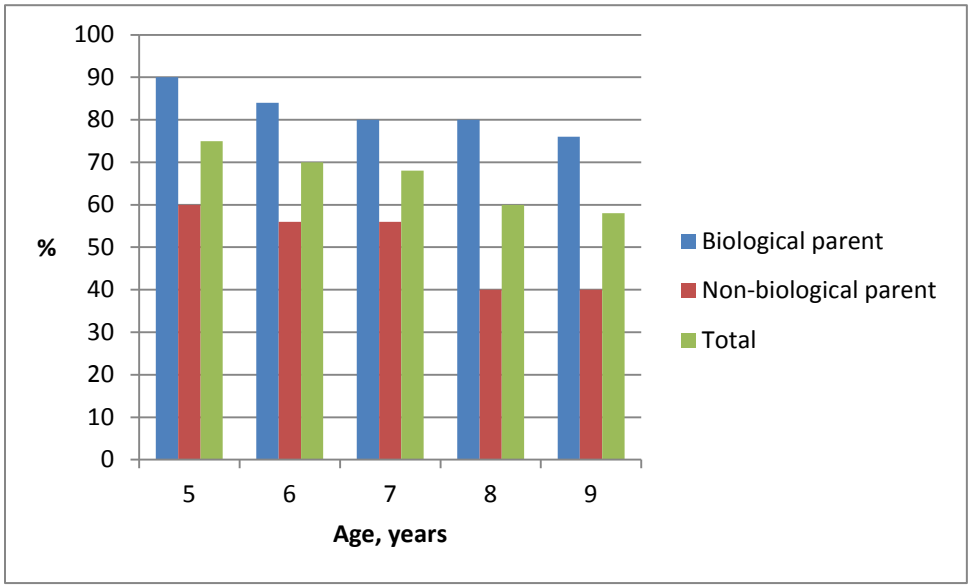


Figure III.7. Percentage of children 5-9 years old who are enrolled in school, by type of caregiver and age.

Q203*: Missed any school days for any reason during the last school week (Q006, 103, 105, 106, 108, 203, Household Schedule Q107)

- Frequency tabs. We are interested in the percentage of children who regularly attend school among all children. Calculate the percentage of children who did not miss any school days during the last school week. The total N is the number of respondents to Q202 (Is [name] currently enrolled in school?). In addition, you may want to look at the percentage of children regularly attending school among children who are enrolled in school (use N from Q203). Please see figure III.8 for an example of how to present these data using a pie chart.
- Cross tabs by sex (Q103), by age (5, 6, 7, 8, 9 years old) (Q105), by residence (Q006), by type of caregiver (Q107, Household Schedule). You may wish to present data on school attendance in a bar chart. An example of how to present these data is given in figure III.9.
- Optional cross tabs by health status (Q106), by disability status (Q108)

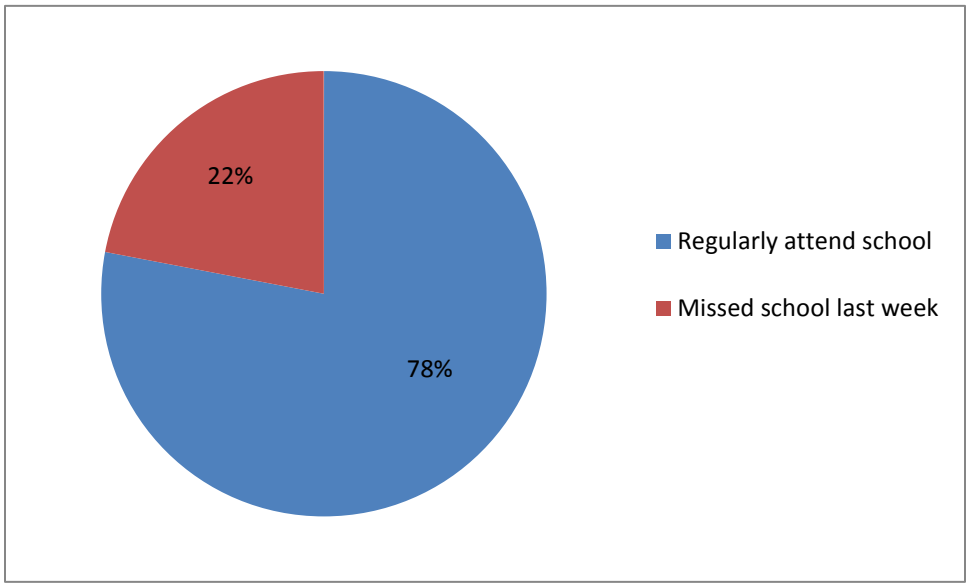


Figure III.8. Percentage of children 5-9 years old who regularly attend school among children who are enrolled in school.

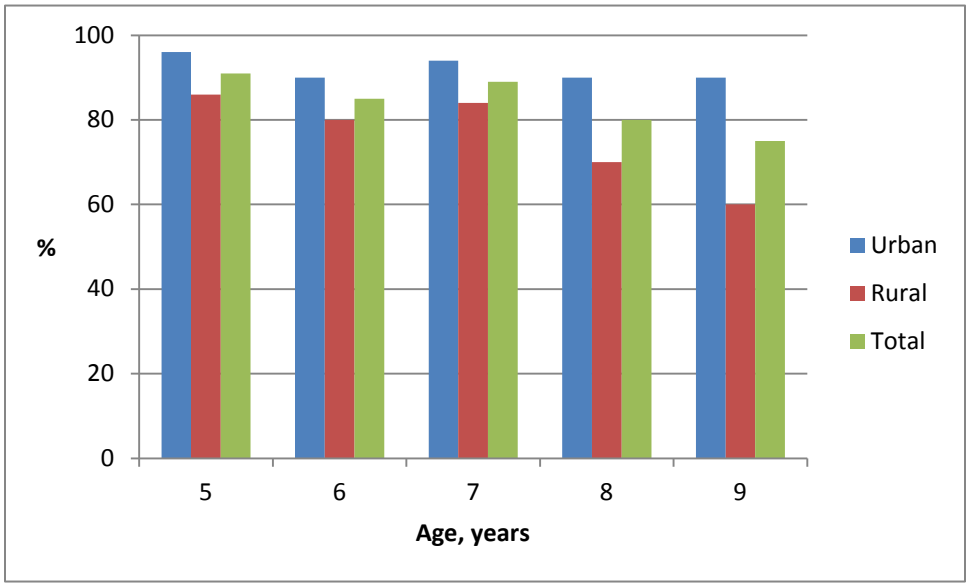


Figure III.9. Percentage of children 5-9 years old who regularly attend school among all school aged children, by age and residence.

If the percentage of children regularly attending school is one of your outcome indicators, you will need to analyze data obtained from at least two surveys conducted at two points in time. Table III.10 and figure III.10 provide examples of how to present data on regular school attendance. There are a variety of analyses that can be conducted if you have data at two points in time, and/or data from a from an intervention and comparison group. Again, we provide one example of how to run an evaluation model for two groups and two time assessments in table A.10 in Appendix 1: Refresher on Basic Analysis.

Table III.10. Regular School Attendance

Group	Time 1		Time 2	
	%	N	%	N
Intervention	55	500	75	470
Comparison	57	500	60	460

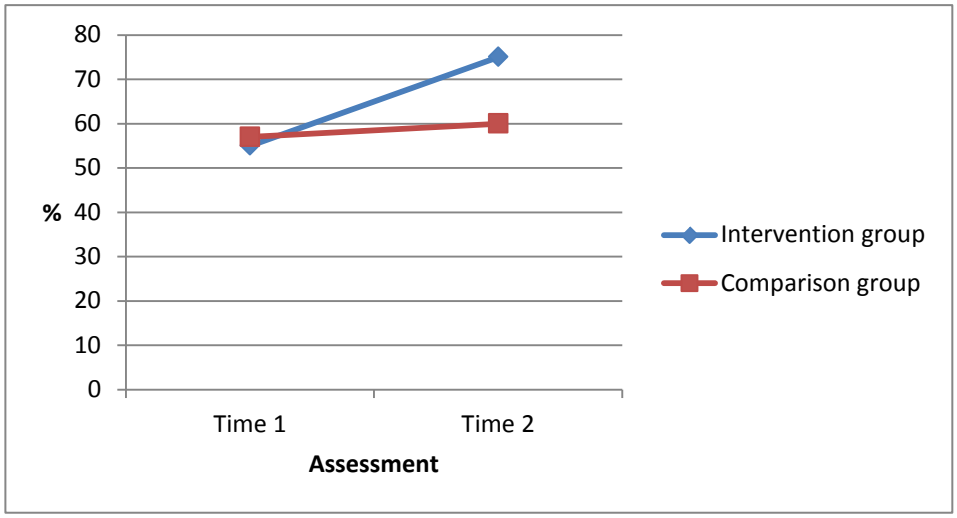


Figure III.10. Percentage of children regularly attending school, by group, over time.

Q204: Reasons for missing school days last school week (Q006, 103, 105, 204, Household Schedule Q107)

- Frequency tabs. Note that up to two responses are allowed for this question. Therefore, the responses will not tally to 100 percent. For example, it is possible that 20 percent of children missed school because it was far away, 30 percent had to work to help family, and 60 percent were sick, which makes the sum of these explanations for missing school greater than 100 percent.
- Cross tabs by sex (Q103), by residence (Q006), by type of caregiver (Q107, Household Schedule)

Q205*, Q208*, Q209*

Grade progression (Q006, 103, 105, Household Schedule Q107)

- Frequency tabs for grade progression over time (percentage of those who moved up one grade from last year). Please see Table III.11 below for a suggested method of organizing your data to calculate progression in school. The number of "Yes" responses in Column E will indicate the number of children who moved up one grade from last year. The total N to calculate the percentage is the total number of school-aged children who attended school in the previous year (Q208). Importantly, in calculating of grade progression, exclude current first grade students who were not enrolled in school last year because they cannot show grade progression yet. First grade students who are in first grade during both this and last year should be included in the calculation of grade progression.
- Cross tabs by sex (Q103), by residence (Q006), by type of caregiver (Q107, Household Schedule).

Grade repetition

- Calculate the proportion of students that repeated a grade by comparing data on current grade (Q205) and previous school year grade (Q209). The total N is the number of children responding to both questions.
- Optional cross tabs by school grade (Q209), by sex (Q103), by residence (Q006).

Drop-outs

- Calculate the proportion of drop-outs since the last school year by comparing data on current enrolment (Q202) with data on enrolment last year (Q208). The frequency is the number of children reporting "yes" to Q208 and reporting "no" to Q202.
- Optional cross tabs by previous school grade (Q209), by sex (Q103), by residence (Q006).

Table III.11. Example of How to Organize Data to Calculate Grade Progression

A	B	C	D	E
Individual ID	Current Year Grade, Q205	Last Year Grade, Q209	Current Year Grade Minus Last Year Grade	Progression, Yes/No (Record as "Yes" if Column D = 1 or Column D>1. Record as "No" otherwise)

Please see table III.12 for an example of how to present grade progression.

Table III.12. Grade Progression

Percentage grade progression for school-aged children who attended school in the previous year by background characteristics, [country, year]				
Background characteristic	Boys progressed in grade	Girls progressed in grade	Total progressed in grade	Number of children
Age				
6				
7				
8				
9				
Residence				
Urban				
Rural				
Type of caregiver				
Biological parent				
Non-biological parent				
Total				

Please see table III.13 for an example of how to present grade repetition and drop-out rates.

Table III.13. Grade Repetition and Drop-out Rates

Percentage repetition and drop-out rates for school-aged children who attended school in the previous school year by school grade, according to background characteristics, [country, year]					
Background characteristic	School grade				
	1		2	3	4
REPETITION RATE[1]					
Sex					
Male					
Female					
Residence					
Urban					
Rural					
Total					
DROP-OUT RATE[2]					
Sex					
Male					
Female					
Residence					
Urban					
Rural					
Total					

[1] The repetition rate is the percentage of students in a given grade in the previous school year who are repeating that grade in the current school year.

[2] The drop-out rate is the percentage of students in a given grade in the previous school year who are not attending school.

Source: MEASURE DHS, 2012.

Q206*: Reasons for not being enrolled in school (Q006, 103, 202, Household Schedule Q107)

- Frequency tabs. Note that the number of children who are not enrolled in school will be the denominator (see Q202).
- Cross tabs by sex (Q103), by residence (Q006), by type of caregiver (Q107, Household Schedule)

Q207: Ever attended school (Q006, 103, 105, 202, Household Schedule Q107)

- Frequency tabs. Note: Use the total N from Q202 (total number of respondents of school age in the sample), to calculate the percentage of respondents who never attended school among all eligible respondents.
- Cross tabs by sex (Q103), by age (5, 6, 7, 8, 9) (Q105), by residence (Q006), by type of caregiver (Q107, Household Schedule)

Q210: Highest grade child completed in school (Q006, 103, 105, 210)

- Frequency tabs
- Cross tabs by sex (Q103), by age (5, 6, 7, 8, 9) (Q105), by residence (Q006)

Q211: Worked for money or kind in the past six months (Q006, 103, 105, 202, 203, 211, Household Schedule Q107)

- Frequency tabs
- Cross tabs by sex (Q103), by age (5, 6, 7, 8, 9) (Q105), by residence (Q006), by type of caregiver (Q107, Household Schedule)
- Optional cross tabs by school enrollment (Q202), missed school days (Q203)

Q212: Type of work (Q006, 103, 105, 211, 212, Household Schedule Q107)

- Frequency tabs. Note that multiple responses are allowed for this question. Therefore, the responses will not tally to 100 percent. For example, 70 percent of children may do house chores for other families, 50% may sell goods at the market, and 15% may work a neighbor's farm, which makes the sum of these activities greater than 100 percent. Data may be presented as a bar chart of types of work (N from Q212) and as a table with the percent of children who have worked among all children aged 5-9 years in the sample (N from Q211). Do not use a pie chart to present data from questions with multiple responses possible.
- Cross tabs by sex (Q103), by age (5, 6, 7, 8, 9) (Q105), by residence (Q006), by type of caregiver (Q107, Household Schedule)

Q213: Attends an early childhood development/education program (Q006, 103, 201, 213, Household Schedule Q107)

- Frequency tabs. The total N is the number of children aged 3-4 years children in the sample (Q201).

- Cross tabs by sex (Q103), by residence (Q006), by type of caregiver (Q107, Household Schedule)

Q214: Activities with a child in the past three days (Q006, 103, 201, 214, Household Schedule Q107)

- Frequency tabs. The total N is the number of children aged 3-4 years in the sample (see Q201).
- Cross tabs by sex (Q103), by residence (Q006), by type of caregiver (Q107, Household Schedule). Please see table III.14 for an example of how to present children's involvement in activities.

Table III.14. Early Childhood Stimulation

Percent distribution of children aged 3-4 years by involvement in activities, according to background characteristics, [country, year]								
Background characteristic	Read books	Told stories	Sang songs	Took outside	Played with	Named/ counted	At least one activity	Number of children
Sex								
Male								
Female								
Residence								
Urban								
Rural								
Type of caregiver								
Biological parent								
Non-biological parent								
Total								

Section 3: Food Consumption

Q301: Age filter (no analysis)

OPTIONAL MODULE 3: Dietary Diversity

Q3.1: Dietary Diversity (Q006, 3.1, 103, 105)

To calculate the Dietary Diversity Score (DDS) (FANTA, 2006):

1. Calculate the DDS *variable* for each child 2 years or older. The value of this variable will range from 0 to 12. Values for A through L will be either "0" or "1" (re-code value "2" ("No") to "0", keep value "1" for "1" ("Yes") in the dataset).

$$DDS = Sum (A + B + C + D + E + F + G + H + I + J + K + L)$$

2. Calculate the average DDS ***indicator*** for the sample population.

   Average DDS = Sum (Dietary Diversity Score) / Total number of children aged 2 or more

3. Provide average DDS by sex (Q103), by age group (2-4, 5-9) (Q105), by residence (Q006).

Q302: Had to eat a smaller meal than felt needed because there was not enough food in the past four weeks (Q006, 103, 105, 302, Household Schedule Q107)

- Frequency tabs
- Disaggregate by sex (Q103), by age group (2-4, 5-9) (Q105), by residence (Q006), by type of caregiver (Q107, Household Schedule)

Q303: How often had to eat a smaller meal than felt needed because there was not enough food in the past four weeks (Q006, 302, 303)

- Frequency tabs. The denominator is the total number of people responding to Q302.
- Disaggregate by residence (Q006)

Q304*, Q307*, Q308*

Grade progression (Q006, 103, 105, 106)

- Frequency tabs for grade progression over time (percentage of those who moved up one grade from last year). Please see Table III.11 below for a suggested method of organizing your data to calculate progression in school. The number of "Yes" responses in Column E will indicate the number of children who moved up one grade from last year. The total N to calculate the percentage is the total number of children who attended school in the previous year (Q307).
- Cross tabs by sex (Q103), by residence (Q006), by type of caregiver (Q106).

Grade repetition

- Calculate the proportion of students that repeated a grade by comparing data on current grade (Q304) and previous school year grade (Q308). The total N is the number of children responding to both questions.
- Optional cross tabs by school grade (Q304), by sex (Q103), by residence (Q006).

Drop-outs

- Calculate the proportion of drop-outs since the last school year by comparing data on current enrolment (Q301) with data on enrolment last year (Q307). The frequency is the number of children reporting "yes" to Q307 and reporting "no" to Q301.
- Optional cross tabs by previous school grade (Q308), by sex (Q103), by residence (Q006).

Table III.11. Example of How to Organize Data to Calculate Grade Progression

A	B	C	D	E
Individual ID	Current Year Grade, Q304	Last Year Grade, Q308	Current Year Grade Minus Last Year Grade	Progression, Yes/No (Record as "Yes" if Column D = 1 or Column D>1. Record as "No" otherwise)

Please see Table III.12 for an example of how to present grade progression.

Table III.12. Grade Progression

Percentage grade progression for children who attended school in the previous year by background characteristics, [country, year]				
Background characteristic	Boys progressed in grade	Girls progressed in grade	Total progressed in grade	Number of children
Age				
10				
11				
12				
13				
14				
15				
16				
17				
Residence				
Urban				
Rural				
Type of caregiver				
Biological parent				
Non-biological parent				
Total				

Please see Table III.13 for an example of how to present grade repetition and drop-out rates.

Table III.13. Grade Repetition and Drop-out Rates

Percentage repetition and drop-out rates for children who attended school in the previous school year by school grade, according to background characteristics, [country, year]								
Background characteristic	School grade							
	5	6	7	8	9	10	11	12
REPETITION RATE[1]								
Sex								
Male								
Female								
Residence								
Urban								
Rural								
Total								
DROP-OUT RATE[2]								
Sex								
Male								
Female								
Residence								
Urban								
Rural								
Total								

[1] The repetition rate is the percentage of students in a given grade in the previous school year who are repeating that grade in the current school year.

[2] The drop-out rate is the percentage of students in a given grade in the previous school year who are not attending school.

Source: MEASURE DHS, 2012

Q305*: Reasons for not being enrolled in school (Q006, 103, 106)

- Frequency tabs. Note that the number of children who are not enrolled in school will be the denominator (see Q301).
- Cross tabs by sex (Q103), by residence (Q006), by type of caregiver (Q106)

Q306: Ever attended school (Q006, 103, 105, 106, 301)

- Frequency tabs. Note: Use the total N from Q301 (total number of respondents of school age in the sample), to calculate the percentage of respondents who never attended school among all eligible respondents.
- Cross tabs by sex (Q103), by age (5, 6, 7, 8, 9) (Q105), by residence (Q006), by type of caregiver (Q106)

Q309: How often went a whole day and night without eating anything in the past four weeks (Q006, 308, 309)

- Frequency tabs. The denominator is the total number of people responding to Q308.
- Disaggregate by residence (Q006)

There are many ways in which data from questions 302-309 can be presented. Please see figure III.11 below as well as figures II.4 (previous section) and IV.5 (next section) for examples.

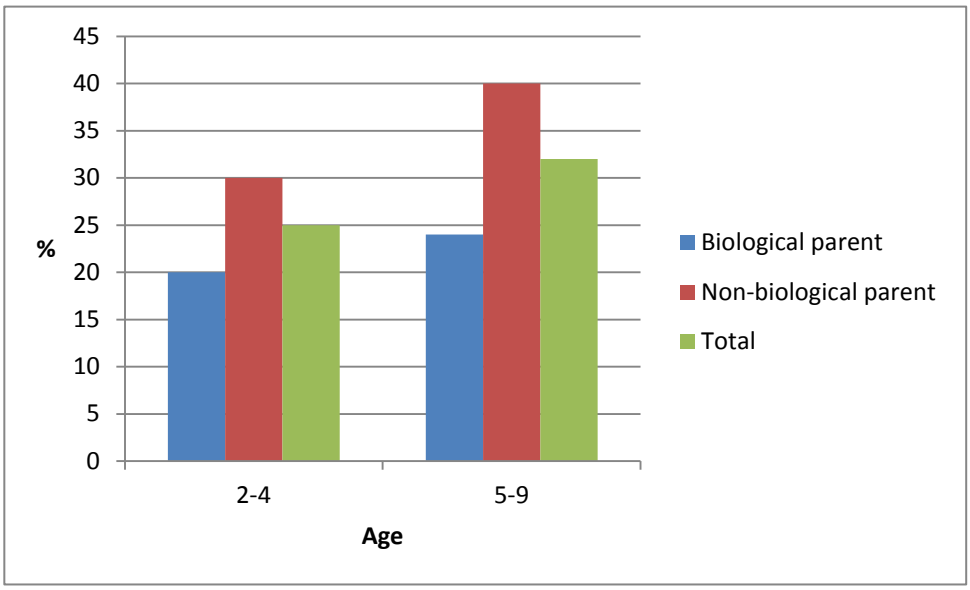


Figure III.11. Percentage of children who went a whole day and night without eating anything in the past four weeks, by type of caregiver and age.

Child's Hunger Scale score (Coates et al., 2007; Deitchler et al., 2010).[5]

Score Interpretation: A higher Child's Hunger Scale score indicates higher hunger.

The Child's Hunger Scale score is a continuous measure of the degree of hunger of the child in the past four weeks. To tabulate the Child's Hunger Scale score indicator, follow these steps:

1. Code frequency-of-occurrence as 0 for all cases where the answer to the corresponding occurrence question (Q302, 304, 306, 308) was "no" (that is currently coded as 2) (i.e., if Q302=2 then Q303=0, if Q304=2 then Q305=0, etc.).
2. Calculate a Child's Hunger Scale score ***variable*** for each child by summing the frequency-of-occurrence for each question (Q303+ Q305 + Q307+ Q309). The maximum score for a child is 12 (if the child's response to all four questions was "often," coded with response code of 3); the minimum score is 0 (if the child responded "no" to all occurrence questions, frequency-of-occurrence questions were skipped by the interviewer and subsequently coded as 0 by the

[5] The four items, three frequencies (4I 3F) scale is based on the HH food insecurity access scale (HFIAS). The sub-scale was developed by the Food and Nutrition Technical Assistance project (FANTA) http://www.fantaproject.org/publications/hhs_2011.shtml.

data analyst). The higher the score, the more hunger the child experienced. The lower the score, the less hunger a child experienced (Coates et al., 2007).

3. Calculate the ***indicator***, average Child's Hunger Scale Score, using the children scores calculated in Step 2.

   Average Child's Hunger Scale Score = Sum of all Child's Hunger Scale scores in the sample/Number of Child's Hunger Scale scores in the sample (i.e., children)

4. Provide average Child's Hunger Scale score by sex (Q103), age group (2-4, 5-9) (Q105), by residence (Q006), by type of caregiver (Q107, Household Schedule)

Section 4: Access to HIV Prevention, Care, and Support

Q401: Services accessed in the last six months (Q006, 103, 105, 108, 302, 304, 306, 308, 401, Household Schedule Q107)

- Frequency tabs. Note that multiple responses are allowed for this question. Therefore, the responses will not tally to 100 percent. For example, 50 percent of respondents may indicate that children received free school supplies or a school uniform, and 60 percent may respond that they received vitamin A supplement from an organization, which would make the sum of the services accessed greater than 100 percent.
- Cross tabs by sex (Q103), by age (<5, 5-9) (Q105), by residence (Q006), type of caregiver (Q107, Household Schedule)
- Cross tabs with child too sick in last two weeks to participate in daily activities (Q107), child having a disability (Q108)
- Cross tabs with child experiencing hunger conditions (302, 304, 306, 308)

Section 5: Weight, Height, and MUAC

501*: Weight, height and mid-upper arm circumference (MUAC) (Q006, 103, 104, 105, 501)

Calculate mean Z-scores for height-for-age, body mass index (bmi)-for-age, and weight-for-age by age (Q104), sex (Q103) and residence (Q006).

- Calculate the percentage below 3 standard deviations (SD) and below 2 SD for height-for-age. Calculate the percentage below 3 SD, below 2 SD, and above 2 SD for bmi-for-age. Calculate the percentage below 3 SD, below 2 SD and above 2 SD for weight-for-

age. Present calculations, by age (Q104), sex (Q103) and residence (Q006). [6] Please see table III.15 and figures III.12 and III.13 for examples of how to present the nutritional status of children in the sample. Please see appendix 3 for guidance on calculating the indicators of the attained growth standards using the WHO AnthroPlus software.

- Calculate the percentage of children aged 6-59 months (Q104) with mid- upper arm circumference (MUAC) measurement < 115 mm (WHO & UNICEF, 2009)[7] by sex (Q103), by residence (Q006)
- If applicable, present trends in the nutritional status of children (percentage stunted, wasted, underweight, overweight, over time).
- Present Child's Hunger and Dietary Diversity mean scores among children who are stunted and children who are not, among children who are wasted and children who are not, among children who are underweight and children who are not, and among children who are overweight and among those who are not. Please see figure III.14 for an example of how to present Child's Hunger and Dietary Diversity mean scores over time.

Table III.15. Nutritional Status of Children

Percentage of children classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, BMI-for-age, and weight-for-age, by background characteristics, [country, year]

	Height-for-age			BMI-for-age				Weight-for-age			
Background characteristic	Below -3 SD	Below -2 SD[1]	Mean Z-score (SD)	Below -3 SD	Below -2 SD[1]	Above +2 SD	Mean Z-score (SD)	Below -3 SD	Below -2 SD[1]	Mean Z-score (SD)	Number of children
Age 0-60 months											
Male											
Female											
Urban											
Rural											
Age 61-119 months											
Male											
Female											
Urban											
Rural											

Note: Each of the indices is expressed in standard deviation units (SD) from the median of the WHO Child Growth Standards adopted in 2006.

[1] Includes children who are below –3 standard deviations (SD) from the WHO Growth Standards population median.

[6] The WHO guidance on computation of Z-scores for height-for-age, weight-for-height and weight-for-age is available at http://www.who.int/childgrowth/standards/Chap_7.pdf. Also, see the WHO growth reference data at http://www.who.int/growthref/en/.

[7] A MUAC of less than 115 mm in children 6-60 months indicates severe acute malnutrition.

Presenting the Anthropometric Results

In presenting the anthropometric results, the nutritional status of children in the survey population is compared with the 2006 WHO Child Growth standards (WHO Multicenter Growth Reference Study Group, 2006) that are based on an international sample (from Brazil, Ghana, India, Norway, Oman, and the United States) of ethnically, culturally, and genetically diverse, healthy children living under optimum conditions conducive to achieving a child's full genetic growth potential.

Each of these indices—height-for-age, weight-for-height, and weight-for-age—provides different information about growth and body composition, which is used to assess nutritional status.

The *height-for-age index* is an indicator of linear growth retardation and cumulative growth deficits.

Children whose height-for-age Z-score is below minus two standard deviations (-2 SD) are considered short for their age (stunted) and are chronically malnourished. Children who are below minus three standard deviations (-3 SD) are considered severely stunted. Stunting reflects failure to receive adequate nutrition over a long period and is also affected by recurrent and chronic illness. Height-for-age, therefore, represents the long-term effects of malnutrition in a population and is not sensitive to recent, short-term changes in dietary intake.

The *weight-for-height index* measures body mass in relation to body height or length and describes current nutritional status.

Children whose Z-scores are below minus two standard deviations (-2 SD) are considered thin (wasted) and are acutely malnourished. Wasting represents the failure to receive adequate nutrition in the period immediately preceding the survey and may be the result of inadequate food intake or a recent episode of illness causing loss of weight and the onset of malnutrition. Children whose weight-for-height is below minus three standard deviations (-3 SD) are considered severely wasted.

Weight-for-age is a composite index of height-for-age and weight-for-height. It takes into account both acute and chronic malnutrition.

Children whose weight-for-age is below minus two standard deviations (-2 SD) from the median of the reference population are classified as underweight. Children whose weight-for-age is below minus three standard deviations (-3 SD) from the median of the reference population are considered severely underweight.

Source: MEASURE DHS, 2012

Below is a short summary of the World Health Organization (WHO) definitions, which may be useful to consider when presenting data on children's nutritional status:

- Underweight: weight for age < –2 standard deviations (SD) of the WHO Child Growth Standards median
- Stunting: height for age < –2 SD of the WHO Child Growth Standards median
- Wasting: weight for height < –2 SD of the WHO Child Growth Standards median
- Overweight: weight for height > +2 SD of the WHO Child Growth Standards median (WHO, 2011)

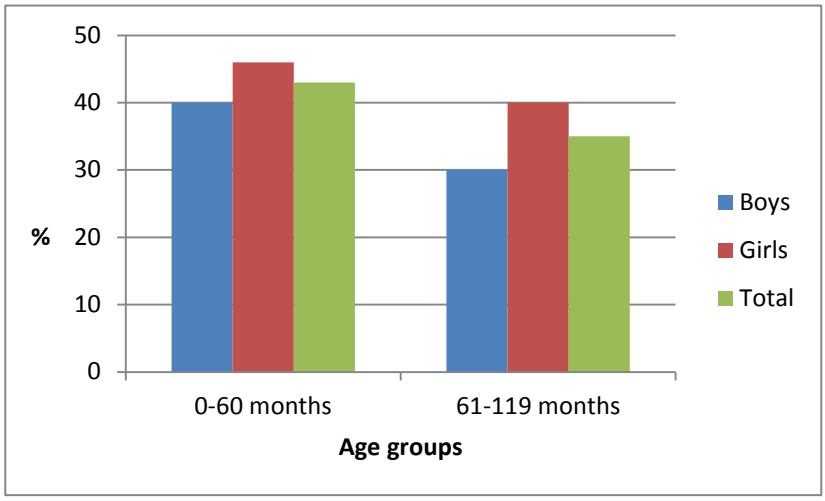


Figure III.12. Percent of children 0-9 years of age who are underweight, by sex.

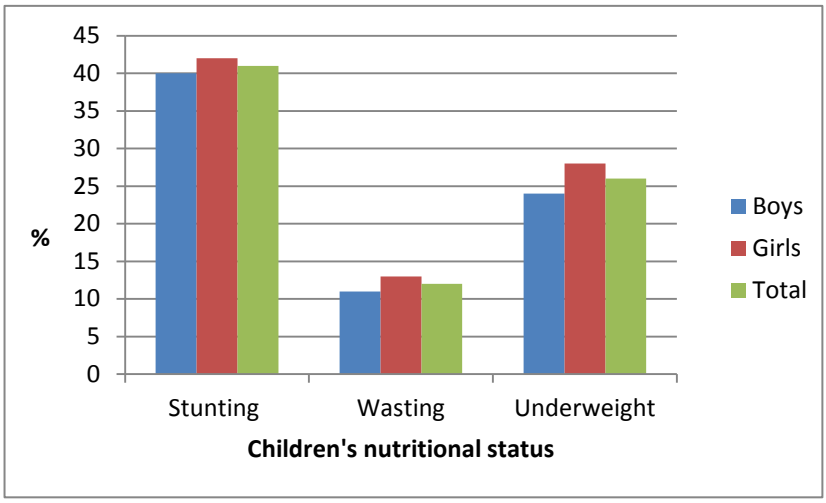


Figure III.13. Percent of malnourished children aged 0-5 years, by sex.

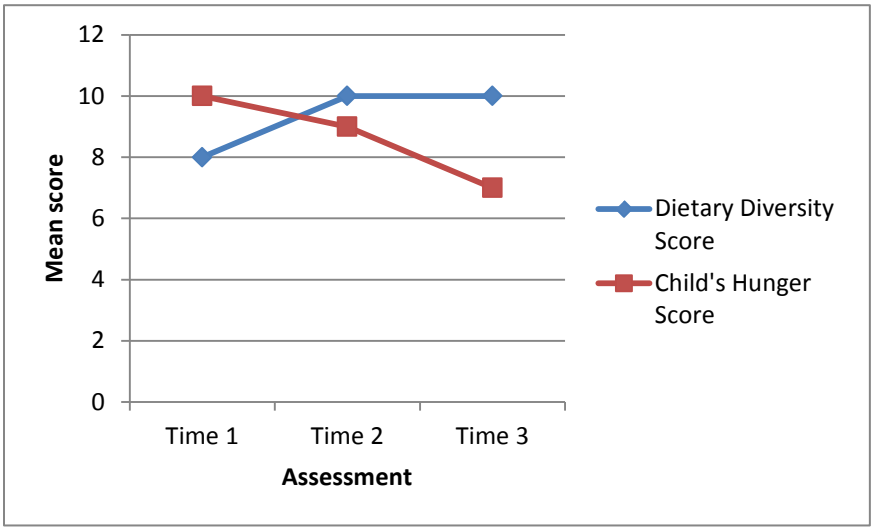


Figure III.14. Dietary diversity and children's hunger scores, over time.

IV DATA ANALYSIS PLAN FOR THE MEASURE EVALUATION CHILD QUESTIONNAIRE: AGES 10-17 YEARS

Section 1: Background Information

Q103*: Sex (Q006)

- Frequency tabs
- Cross tabs by residence (Q006)

Q104: Age (Q006, 103, 104)

You will need to choose between responses to Q104 and Q105 if there is any disagreement in the responses (any differences should have been resolved during data cleaning). Within this analysis plan, in most cases, we will refer to Q105 for the Age variable.

- Frequency tabs of age group (10-14, 15-17) (Q105)
- Cross tabs by sex (Q103), by residence (Q006). Please see Table IV.1 for an example of how to present demographic information.

Table IV.1. Demographic Information of Children Aged 10-17

	Urban			Rural			Total		
Age	Male	Female	Total	Male	Female	Total	Male	Female	Total
10-14									
15-17									
Total, %	100	100	100	100	100	100	100	100	100
Total, #									

Q105*: Age (Q006, 103, 105)

- Frequency tabs of age group (10-14, 15-17) (Q105)
- Cross tabs by sex (Q103), by residence (Q006)

Q106: Who takes care of you (Q006, 103, 106)

- Frequency tabs
- Cross tabs by sex (Q103), by residence (Q006)

Section 2: Diary

Questions are primarily asked to establish rapport. However, depending on the focus of the study, descriptive analysis (e.g., reporting on proportion, ratio) to describe the sample can be conducted. For example, type of activities children are involved in can be reported by age and residence.

Section 3: Education

Q301*: School enrollment (Q006, 103, 105, 106, 301)

- Frequency tabs. You may compare this with responses to Q304 ("Current grade") for a validation check.
- Cross tabs by sex (Q103), by age group (10-14, 15-17) (Q105), by residence (Q006), by type of caregiver (Q106). Please see Table IV.2 for an example of how to present these data.

Table IV.2. School Enrollment

Percentage of children aged 10-17 years enrolled in school by background characteristics, [country, year]				
Background characteristic	Urban	Rural	Total	Number of children
Age				
10-14				
15-17				
Sex				
Male				
Female				
Type of caregiver				
Biological parent				
Non-biological parent				
Total				

You may wish to present data on school enrollment in a chart. An example of how to present these data by type of residence is given in figure IV.1. Please see part III, section 2 in the child 0-9 questionnaire for more examples.

Q302*: Missed any school days for any reason during the last school week (Q006, 103, 105, 302)

- Frequency tabs. We are interested in the percentage of children regularly attending school. Calculate the percentage of children who did not any miss school days during the last school week. The total N is the number of respondents in a sample. In addition, you may want to look at the percentage of children regularly attending school among children who are enrolled in school (use N from Q302). Please see figure III.8 in the analysis plan for the Child ages 0-9 questionnaire for an example of how to present these data using a pie chart.

- Cross tabs by sex (Q103), by age group (10-14, 15-17) (Q105), by residence (Q006). You may wish to present data on school attendance in a bar chart. An example of how to present these data is given in figure IV.2.

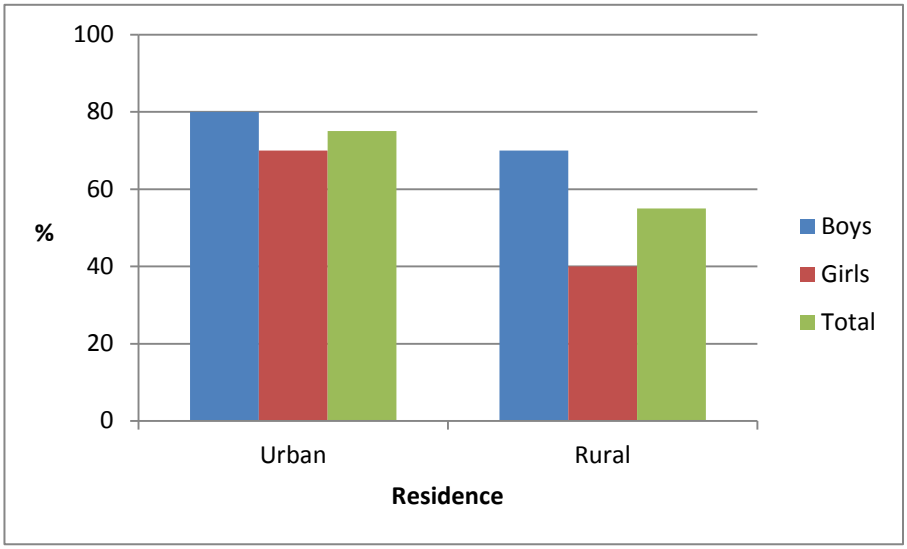


Figure IV.1. Percentage of children 10-17 years old who are enrolled in school, by sex and residence.

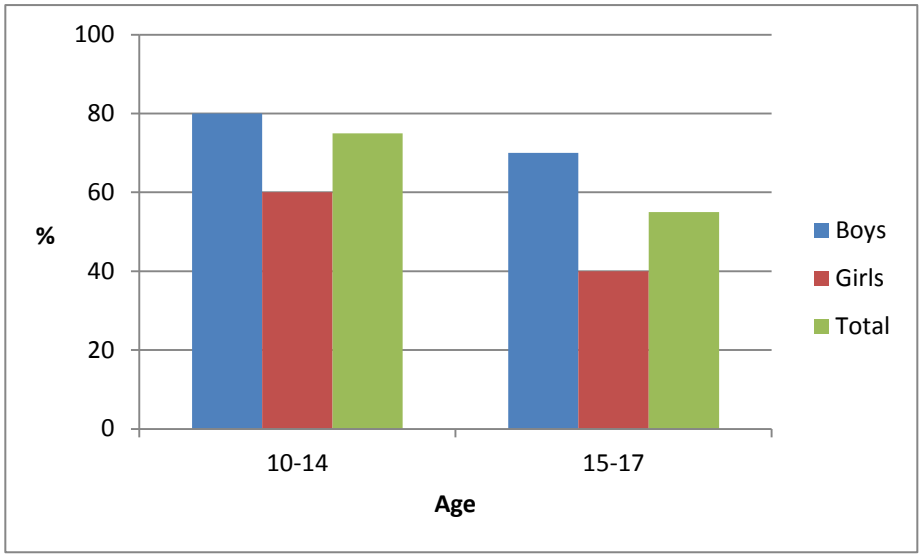


Figure IV.2. Percentage of children 10-17 years old who regularly attend school among all children, by age group and sex.

Q303: Reasons for missing school during the last school week (Q006, 103, 105, 106, 303)

- Frequency tabs. Note that multiple responses are allowed for this question. Therefore, the responses will not tally to 100 percent. For example, 50 percent of children may indicate

that they had to work, 50 percent may respond that their school is too far away, and 40 percent may report that they have to take care of household members. The sum of these explanations for missing school is greater than 100 percent.
- Cross tabs by sex (Q103), by age group (10-14, 15-17) (Q105), by residence (Q006)
- Cross tabs by type of caregiver (Q106)

Q304*, Q305*: Grade progression (Q006, 103, 105, 106, 304, 305)

- Frequency tabs for grade progression over time (percentage of those who moved up one grade from last year). Please see table IV.3 for a suggested method of organizing your data to calculate progression. The number of "Yes" responses in Column E will indicate the number of children who moved up one grade from last year. The total N to calculate the percentage is the total number of children aged 10-17 who attended school in the previous year.
- Cross tabs by sex (Q103), by age group (10-14, 15-17) (Q105), by residence (Q006), by type of caregiver (Q106)
- Repetition and drop-out rates by school grade (Q304, 305), by sex (Q103) and by residence (Q006)

Table IV.3. An Example of How to Organize Data to Calculate Grade Progression

A	B	C	D	E
Individual ID	Current Year Grade, Q304	Last Year Grade, Q305	Current Year Grade Minus Last Year Grade	Progression, Yes/No (Record as "Yes" if Column D = 1 or Column D>1. Record as "No" otherwise)

Please see table IV.4 for an example of how to present data on grade progression.

Table IV.4. Grade Progression

Percentage grade progression for school-aged children who attended school in the previous year by background characteristics, [country, year]				
Background characteristic	Boys progressed in grade	Girls progressed in grade	Total progressed in grade	Number of children
Age				
10-14				
15-17				
Residence				
Urban				
Rural				
Type of caregiver				
Biological parent				
Non-biological parent				
Total				

Please see table IV.5 for an example of how to present grade repetition and drop-out rates.

Table IV.5. Grade Repetition and Drop-out Rates

Repetition and drop-out rates for school-aged children who attended school in the previous school year by school grade, according to background characteristics, [country, year]							
Background characteristic	School grade[1]						
	3	4	5	6	7	8	9
REPETITION RATE[2]							
Sex							
Male							
Female							
Residence							
Urban							
Rural							
Total							
DROP-OUT RATE[3]							
Sex							
Male							
Female							
Residence							
Urban							
Rural							
Total							

1. List country-specific grades for children 10-17 years old
2. The repetition rate is the percentage of students in a given grade in the previous school year who are repeating that grade in the current school year.
3. The drop-out rate is the percentage of students in a given grade in the previous school year who are not attending school.

Source: MEASURE DHS, 2012

Q306: Reasons for not going to school (Q006, 103, 105, 106, 306)

- Frequency tabs. Note that the number of children who are not enrolled in school will be the denominator (see Q301). Also, note that up to two responses are allowed for this question. Therefore, the responses will not tally to 100 percent. For example, 50 percent of children may indicate that they have to work, and 60 percent may state that there is no money for school materials or transport. The sum of these is more than 100 percent.
- Cross tabs by sex (Q103), by age group (10-14, 15-17) (Q105), by residence (Q006)
- Cross tabs by type of caregiver (Q106)

Q307: Ever attended school (Q006, 103, 105, 106, 301, 307)

- Frequency tabs. This question is addressed only to those respondents who indicated that they are not enrolled in school. Therefore, make sure to use the total N from Q 301 (total number of respondents in the sample who responded to Q301), to calculate the percentage of respondents who never attended school among all respondents.

- Cross tabs by sex (Q103), by age group (10-14, 15-17) (Q105), by residence (Q006)
- Cross tabs by type of caregiver (Q106)

Q308: Last time regularly attended school (Q006, 103, 105, 308)

- Frequency tabs
- Cross tabs by sex (Q103), by age group (10-14, 15-17) (Q105), by residence (Q006)

Q309: Highest grade completed (Q006, 103, 105, 309)

- Frequency tabs
- Cross tabs by sex (Q103), by age group (10-14, 15-17) (Q105), by residence (Q006)

Section 4: Chores and Work

Q401, 402: Does household chores (Q006, 103, 105, 106, 401, 402)

Use answers to Q401, 402 to create a Yes/No variable for: "Does Household Chores." If the answer is "Yes" to at least one of these two questions, code respondent as "Yes, does household chores" (see table IV.6). The total N for this variable is the total number of respondents in the sample.

- Frequency tabs
- Cross tabs by sex (Q103), by age group (10-14, 15-17) (Q105), by residence (Q006)
- Cross tabs with type of caregiver (Q106)

Table IV.6. An Example of How to Organize Data to Create the Yes/No Variable: "Does Household Chores"

Input 1: Response to Q401	**Input 2:** Response to Q402	**Result:** Values for the "Does Household Chores" variable
Yes	Yes	Yes
Yes	No	Yes
No	Yes	Yes
No	No	No

Q403: Types of household chores (Q006, 103, 105, 106, 403)

- Frequency tabs. Note that multiple responses are allowed for this question. Therefore, the responses will not tally to 100 percent. For example, 70 percent of children may indicate that they prepare food, 50 percent may report taking care of other children, and 60 percent may report feeding animals. The sum of these activities is greater than 100 percent.
- Cross tabs by sex (Q103), by age group (10-14, 15-17) (Q105), by residence (Q006), by type of caregiver (Q106). Please see table IV.7 for an example of how to present these data.

Table IV.7. Household Chores

Percentage of children who do household chores by background characteristics and type of HH chores, [country, year]										
Background characteristic	Type of HH chores									Number of children
	Prepare food	Fetch water	Clean toilets	Take care of children	Help out parents in shop	Plant/ tend to/ harvest crops	Feed, care for animals	Wash clothes, blankets	Other	
Age										
10-14										
15-17										
Sex										
Male										
Female										
Residence										
Urban										
Rural										
School enrollment										
Enrolled in school										
Not enrolled in school										
Type of caregiver										
Biological parent										
Not biological parent										
Total										

Q404: Time spent doing HH or farm chores (Q006, 103, 105, 106, 404)

- Frequency tabs
- Cross tabs by sex (Q103), by age group (10-14, 15-17) (Q105), by residence (Q006)
- Cross tabs with type of caregiver (Q106)

Q405, Q406: Other work (Q006, 103, 105, 301, 304, 305, 405, 406)

Use answers to Q405, 406 to create a Yes/No variable for: "Other work." If the answer is "Yes" to at least one of these two questions, code respondent as "Yes: does other work". The total N for this variable is the total number of respondents in the sample.

- Frequency tabs
- Cross tabs by sex (Q103), by age group (10-14, 15-17) (Q105), by residence (Q006)
- Cross tabs with school enrollment (Q301), grade progression (Q304, Q305)
- Cross tabs by type of caregiver (Q106)

Figures IV.3 and IV.4 show two ways of presenting the percentage of children who work.

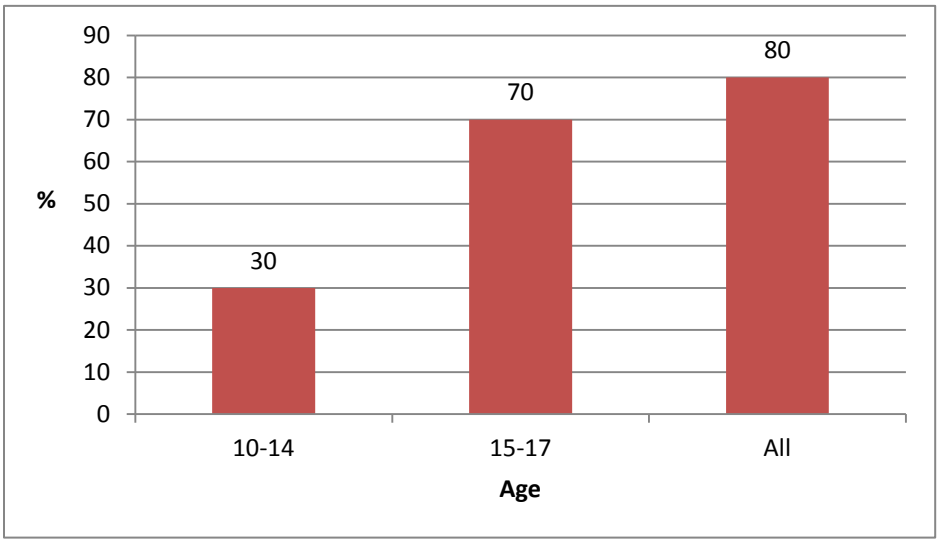


Figure IV.3. Percentage of children who report any work, by age group.

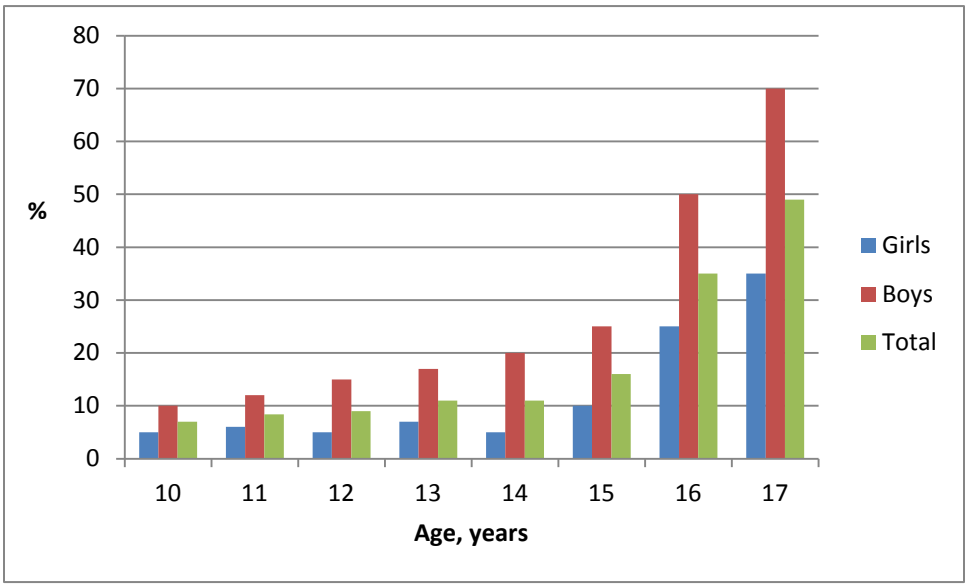


Figure IV.4. Percentage of children who report any work, by age and sex.

Q407: Types of other work done (Q006, 103, 105, 407)

- Frequency tabs. Note that multiple responses are allowed for this question. Therefore, it is unlikely that responses will tally to 100 percent.
- Cross tabs by sex (Q103), by age group (10-14, 15-17) (Q105), by residence (Q006)

Q408: Frequency of other work (Q006, 103, 105, 106, 301, 408)

- Frequency tabs
- Cross tabs by sex (Q103), by age group (10-14, 15-17) (Q105), by residence (Q006)
- Cross tabs by school enrollment (Q301)
- Cross tabs by type of caregiver (Q106)

Q409: Time spent per day doing other work (Q006, 103, 105, 106, 301, 408, 409)

- Frequency tabs
- Cross tabs by sex (Q103), by age group (10-14, 15-17) (Q105), by residence (Q006)
- Cross tabs by school enrollment (Q301)
- Cross tabs by type of caregiver (Q106)

Q410: Ever received money for any work done (Q006, 103, 105, 301, 410)

- Frequency tabs
- Cross tabs by sex (Q103), by age group (10-14, 15-17) (Q105), by residence (Q006)
- Cross tabs by school enrollment (Q301)

Q411: What [else] done to get money (Q006, 103, 105, 411)

- Frequency tabs
- Cross tabs by sex (Q103), by age group (10-14, 15-17) (Q105), by residence (Q006)

Q412: What is done with money earned (Q006, 103, 105, 106, 412)

- Frequency tabs. Note that multiple responses are allowed for this question. Therefore, the responses will not tally to 100 percent. For example, 50 percent of children may indicate that they give the money they get to parents, and 70 percent may respond that they buy food for themselves. The sum is of these responses is greater than 100 percent.
- Cross tabs by sex (Q103), by age group (10-14, 15-17) (Q105), by residence (Q006)
- Cross tabs by type of caregiver (Q106)

Section 5: Food and Alcohol Consumption

OPTIONAL MODULE 1: Dietary Diversity

Q1.1: Dietary Diversity (Q006, 1.1, 103, 105, 106)

To calculate the Dietary Diversity Score (DDS):

1. Calculate the DDS *variable* for each child. The value of this variable will range from 0 to 12. Values for A through L will be either "0" or "1" (re-code value "2" ("No") to "0", keep value "1" for "1" ("Yes") in the dataset).

DDS = Sum (A + B + C + D + E + F + G + H + I + J + K + L)

2. Calculate the average DDS ***indicator*** for the sample population (FANTA, 2006)

Average DDS = Sum (Dietary Diversity Score) / Total number of children

3. Provide average DDS by sex (Q103), by age group (10-14, 15-17) (Q105), by residence (Q006), by type of caregiver (Q106)

Q501: Had to eat a smaller meal than felt needed because there was not enough food in the past four weeks (Q006, 103, 105, 106, 501)

- Frequency tabs
- Disaggregate by sex (Q103), by age group (10-14, 15-17) (Q105), by residence (Q006), by type of caregiver (Q106)

Q502: How often had to eat a smaller meal than felt needed because there was not enough food in the past four weeks (Q006, 501, 502)

- Frequency tabs. The denominator is the total number of people responding to Q501.
- Disaggregate by residence (Q006)

Q503: Had to skip a meal because there was not enough food in the past four weeks (Q006, 103, 105, 106, 503)

- Frequency tabs
- Disaggregate by sex (Q103), by age group (10-14, 15-17) (Q105), by residence (Q006), by type of caregiver (Q106)

Q504: How often had to skip a meal because there was not enough food in the past four weeks (Q006, 503, 504)

- Frequency tabs. The denominator is the total number of people responding to Q503.
- Disaggregate by residence (Q006)

Q505: Went to sleep at night hungry because there was not enough food in the past four weeks (Q006, 103, 105, 106, 505)

- Frequency tabs
- Disaggregate by sex (Q103), by age group (10-14, 15-17) (Q105), by residence (Q006), by type of caregiver (Q106)

Q506: How often had to sleep at night hungry because there was not enough food in the past four weeks (Q006, 505, 506)

- Frequency tabs. The denominator is the total number of people responding to Q505.

- Disaggregate by residence (Q006)

Q507*: Went a whole day and night without eating anything in the past four weeks (Q006, 103, 105, 106, 507)

- Frequency tabs
- Disaggregate by sex (Q103), by age group (10-14, 15-17) (Q105), by residence (Q006), by type of caregiver (Q106)

Q508: How often went a whole day and night without eating anything in the past four weeks (Q006, 507, 508)

- Frequency tabs. The denominator is the total number of people responding to Q507.
- Disaggregate by residence (Q006)

There are many ways in which data from questions 501-508 can be presented. For illustrative purposes, we present fictional data from Q507 in figure IV.5 below. The figure shows data collected at one point in time. Please see figure II.4 and figure III.11 for more examples.

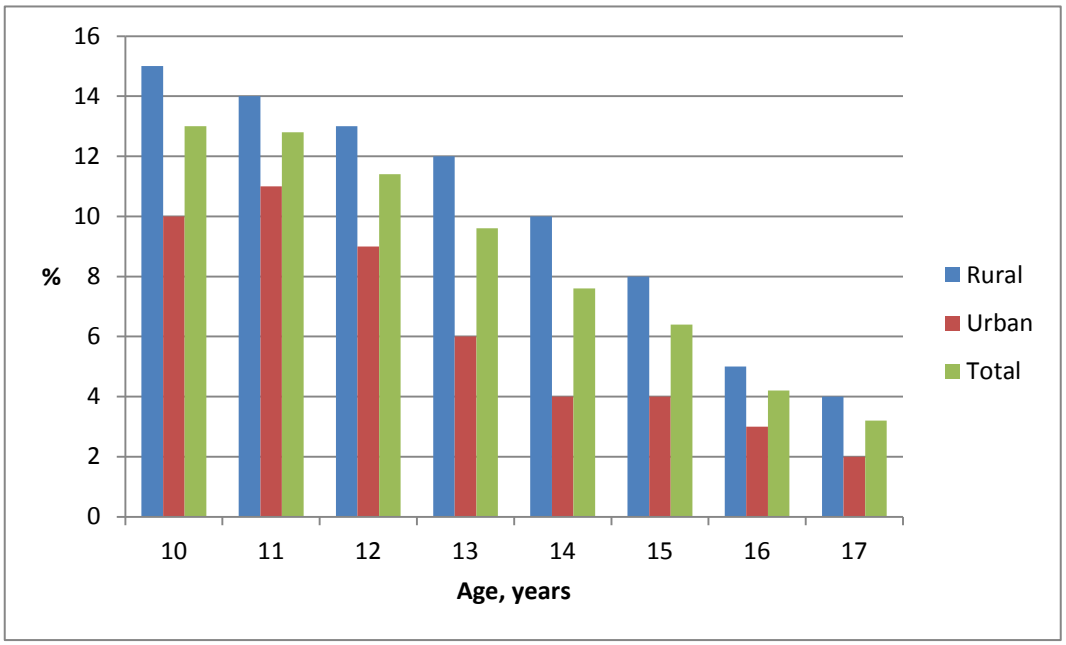


Figure IV.5. Percentage of children who went a whole day and night without eating anything in the past four weeks, by age and residence.

Child's Hunger Scale score (Coates et al., 2007; Deitchler et al., 2010)[8]

Score Interpretation: A higher Child's Hunger Scale score indicates higher hunger.

The Child's Hunger Scale score is a continuous measure of the degree of hunger of the child in the past four weeks. To tabulate the Child's Hunger Scale score indicator, follow these steps:

1. Code frequency-of-occurrence as 0 for all cases where the answer to the corresponding occurrence question (Q501, 503, 505, 507) was "no" (that is currently coded as 2) (i.e., if Q501=2 then Q502=0, if Q503=2 then Q504=0, etc.).
2. Calculate a Child's Hunger Scale score ***variable*** for each child by summing the frequency-of-occurrence for each question (Q502+ Q504 + Q506+ Q508). The maximum score for a child is 12 (if the child's response to all four questions was "often," coded with response code of 3); the minimum score is 0 (if the child responded "no" to all occurrence questions, frequency-of-occurrence questions were skipped by the interviewer and subsequently coded as 0 by the data analyst). The higher the score, the more hunger the child experienced. The lower the score, the less hunger a child experienced (Coates et al., 2007).
3. Calculate the ***indicator***, average Child's Hunger Scale Score, using the children scores calculated in Step 2.

   Average Child's Hunger Scale Score = Sum of all Child's Hunger Scale scores in the sample/Number of Child's Hunger Scale scores in the sample (i.e., children)

4. Provide average Child's Hunger Scale score by sex (Q103), by age group (10-14, 15-17) (Q105), by residence (Q006), by type of caregiver (Q106).

Q509: Ever consumed alcohol (Q006, 103, 105, 106, 301, 308, 509)

- Frequency tabs
- Cross tabs by sex (Q103), by age group (10-14, 15-17) (Q105), by residence (Q006), by school enrollment (Q301), by type of caregiver (Q106)

Q510: Last time consumed alcohol (Q006, 103, 105, 106, 301, 510)

- Frequency tabs
- Cross tabs by sex (Q103), by age group (10-14, 15-17) (Q105), by residence (Q006), by school enrollment (Q301), by type of caregiver (Q106)

[8] The four items, three frequencies (4I 3F) scale is based on the HH food insecurity access scale (HFIAS). The sub-scale was developed by the Food and Nutrition Technical Assistance project (FANTA) http://www.fantaproject.org/publications/hhs_2011.shtml.

Q511: How often consume alcohol (Q006, 103, 105, 106, 301, 509, 511)

- Frequency tabs. The denominator is the total number of people responding to Q509.
- Cross tabs by sex (Q103), by age group (10-14, 15-17) (Q105), by residence (Q006), by school enrollment (Q301), by type of caregiver (Q106)

Section 6: Health, Support, and Protection

Q601*: Possession of a birth certificate (Q006, 103, 105, 106, 601)

- Frequency tabs
- Cross tabs by sex (Q103), by age group (10-14, 15-17) (Q105), by residence (Q006), by type of caregiver (Q106)
- Cross tabs with Q602 (birth certificate is seen/observed)

Q602*: Birth certificate is seen (Q006, 103, 105, 106, 602)

- Frequency tabs
- Cross tabs by sex (Q103), by age group (10-14, 15-17) (Q105), by residence (Q006), by school enrollment (Q301), by type of caregiver (Q106)

Together, questions 601 and 602 provide information on the percentage of children who have a birth certificate. Table IV.8 below provides an example of how to present these data for all children surveyed.

Table IV.8. Possession of a Birth Certificate

Percentage of children who have birth certificate by background characteristics, [country, year]			
Background characteristic	Report having birth certificate	Birth certificate is seen[1]	Number of children
Age			
10-14			
15-17			
Sex			
Male			
Female			
Residence			
Urban			
Rural			
School Enrollment			
Enrolled in school			
Not enrolled in school			
Type of caregiver			
Biological parent			
Non-biological parent			
Total			

Q603*: Too sick to participate in daily activities (Q006, 103, 105, 106, 603, 604, 605)

- Frequency tabs
- Cross tabs by sex (Q103), by age group (10-14, 15-17) (Q105), by residence (Q006), by school enrollment (Q301), by type of caregiver (Q106)
- Cross tabs by having disability (Q604), by type of disability (Q605)

Table IV.9 provides an example of how to present these data for all children surveyed by sex.

Table IV.9. Being Too Sick to Participate in Daily Activities

Percentage of children who are too sick to participate in daily activities by background characteristics, [country, year]						
Background characteristic	Male		Female		Total	
	N	%	N	%	N	%
Age						
10-14						
15-17						
Residence						
Urban						
Rural						
School Enrollment						
Enrolled in school						
Not enrolled in school						
Type of caregiver						
Biological parent						
Non-biological parent						
Disability status						
No disability reported						
Disability reported						
Total						

Q604: Have disability (Q006, 103, 105, 106, 603, 604)

- Frequency tabs
- Cross tabs by sex (Q103), by age group (10-14, 15-17) (Q105), by residence (Q006), by type of caregiver (Q106)
- Cross tabs by the ability to participate in daily activities (Q603)

Q605: Type of disability (Q006, 103, 603, 605)

- Frequency tabs
- Cross tabs by sex (Q103), by residence (Q006)
- Cross tabs by ability to participate in daily activities (Q603)

Q606-609*: Social support (Q006, 103, 105, 301, 606-609)

For each of the questions 606-609, provide

- Frequency tabs
- Cross tabs by sex (Q103), by age group (10-14, 15-17) (Q105), by residence (Q006), by school enrollment (Q301), by type of caregiver (106)

In addition to presenting the frequency tabs for each question separately, you may want to present the percentage of children who respond "yes" to one, two, three, and all four social support questions. Please see table IV.10.

Table IV.10. Social Support

Percentage of children who respond "Yes" to social support questions by background characteristics, [country, year]					
	Percentage of children who respond "Yes" to:				Number of children
Background characteristic	Any one question on social support	Any two questions on social support	Any three questions on social support	All four questions on social support	
Age					
10-14					
15-17					
Sex					
Male					
Female					
Residence					
Urban					
Rural					
School Enrollment					
Enrolled in school					
Not enrolled in school					
Total					

OPTIONAL MODULE 2: Perceptions and Experience of Violence

Section 7: HIV/AIDS Knowledge, Attitutes, and Sexual Behavior

OPTIONAL MODULE 3: Child Development Knowledge

Optional Module 3, Q3.1-3.6:

- Frequency tabs
- Cross tabs by sex (Q103), by age group (10-14, 15-17) (Q105), by residence (Q006)

Q701: Heard of AIDS (Q006, 103, 105, 106, 301, 304, 701)

- Frequency tabs

- Cross tabs by sex (Q103), by age group (13-14, 15-17) (Q105), by school enrollment (Q301), by grade (Q304), by residence (Q006).

Please see table IV.11 for an example of how to present data on knowledge of AIDS among surveyed children.

Table IV.11. Knowledge of AIDS

Percentage of Children Who Have Heard of AIDS by Background Characteristics, [Country, Year]						
	Girls		Boys		Total	
Background characteristic	Have heard of AIDS	Number of girls	Have heard of AIDS	Number of boys	Have heard of AIDS	Number of children
Age						
13-14						
15-17						
Residence						
Urban						
Rural						
School Enrollment						
Enrolled in school						
Not enrolled in school						
Total						

Source: MEASURE DHS, 2012

Q702: HIV can be prevented by being faithful to one uninfected partner (Q006, 103, 105, 301, 702)

- Frequency tabs. Note that total N is the number of respondents who responded to Q701 (Have you ever heard of AIDS?)
- Cross tabs by sex (Q103), by age group (13-14, 15-17) (Q105), by school enrollment (Q301), by residence (Q006)

Q703: HIV can be prevented by using a condom during sex (Q006, 103, 105, 301, 703)

- Frequency tabs. Note that total N is the number of respondents who responded to Q701 (Have you ever heard of AIDS?)
- Cross tabs by sex (Q103), by age group (13-14, 15-17) (Q105), by school enrollment (Q301), by residence (Q006)

Q702, 703. Knowledge of HIV prevention methods (Q006, 103, 105, 301, 702, 703)

Together, questions 702 and 703 provide information on knowledge of HIV prevention methods. Table IV.12 provides an example of how to present these data for children surveyed.

Table IV.12. Knowledge of HIV Prevention Methods

Percentage of children who, in response to prompted questions, say that people can reduce the risk of getting the AIDS virus by using a condoms during sex, and by being faithful to one uninfected partner, by background characteristics, [country, year]								
Background characteristic	Girls				Boys			
	Percentage who say HIV can be prevented by:			Number of girls	Percentage who say HIV can be prevented by:			Number of boys
	Using a condom during sex	Being faithful to one uninfected partner	Using a condom during sex and being faithful to one uninfected partner		Using a condom during sex	Being faithful to one uninfected partner	Using a condom during sex and being faithful to one uninfected partner	
Age								
13-14								
15-17								
Residence								
Urban								
Rural								
School Enrollment								
Enrolled in school								
Not enrolled in school								
Total								

Source: MEASURE DHS, 2012

Q704: A healthy-looking person can have HIV (Q006, 103, 105, 301, 704)

- Frequency tabs. Note that total N is the number of respondents who responded to Q701 (Have you ever heard of AIDS?)
- Cross tabs by sex (Q103), by age group (13-14, 15-17) (Q105), by school enrollment (Q301), by residence (Q006)

Q705: People can get the AIDS virus from mosquito bites (Q006, 103, 105, 301, 705)

- Frequency tabs. Note that total N is the number of respondents who responded to Q701 (Have you ever heard of AIDS?)
- Cross tabs by sex (Q103), by age group (13-14, 15-17) (Q105), by school enrollment (Q301), by residence (Q006)

Q706: People can get the AIDS virus by sharing food with someone who has AIDS (Q006, 103, 105, 301, 706)

- Frequency tabs. Note that total N is the number of respondents who responded to Q701 (Have you ever heard of AIDS?)

- Cross tabs by sex (Q103), by age group (13-14, 15-17) (Q105), by school enrollment (Q301), by residence (Q006)

Q701-706: Comprehensive knowledge about AIDS (Q006, 103, 105, 106, 301, 701-706)

- Cross tabs by sex (Q103), by age group (13-14, 15-17) (Q105), by school enrollment (Q301), by residence (Q006). Note that total N is the number of respondents who responded to Q701 (Have you ever heard of AIDS?).

Please see table IV.13 for an example of how to present comprehensive knowledge about AIDS among surveyed children.

Table IV.13. Comprehensive Knowledge of AIDS

Percentage of children who say that a healthy-looking person can have the AIDS virus and who, in response to prompted questions, correctly reject local misconceptions about transmission or prevention of the AIDS virus, and the percentage with a comprehensive knowledge about AIDS by background characteristics, [country, year]

	Percentage of children who say that:					
Background characteristic	A healthy looking person can have the AIDS virus	The AIDS virus cannot be transmitted by mosquito bites	A person cannot become infected by sharing food with a person who has AIDS	Percentage who say that a healthy-looking person can have the AIDS virus and who reject the two most common local misconceptions[1]	Percentage with a comprehensive knowledge about AIDS[2]	Number of children
Age						
13-14						
15-17						
Sex						
Male						
Female						
Residence						
Urban						
Rural						
School Enrollment						
Enrolled in school						
Not enrolled in school						
Total						

[1] Two most common misconceptions: The AIDS virus CAN be transmitted by mosquito bites. A person CAN become infected by sharing food with a person who has the AIDS virus.

[2] Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about transmission or prevention of the AIDS virus.

Source: MEASURE DHS, 2012

Q707: HIV transmission from a mother to her baby (Q006, 103, 105, 301, 707)

- Frequency tabs. Note that total N is the number of respondents who responded to Q701 (Have you ever heard of AIDS?)
- Cross tabs by sex (Q103), by age group (13-14, 15-17) (Q105), by school enrollment (Q301), by residence (Q006)
- Percentage of those who indicate any one, any two, and all three ways for transmission of HIV from a mother to her baby, by sex (Q103), age group (13-14, 15-17) (Q105) and residence (Q006)

OPTIONAL MODULE 4: HIV/AIDS Attitudes and Beliefs

Optional Module 4, Q4.1-4.4:

- Frequency tabs
- Cross tabs by sex (Q103), by age group (10-14, 15-17) (Q105), by residence (Q006)

Q708: Ever had HIV test (Q006, 103, 105, 106, 301, 708)

- Frequency tabs. Note that total N is the number of respondents who responded to Q701 (Have you ever heard of an illness called AIDS?)
- Cross tabs by sex (Q103), age (13, 14, 15, 16, 17 years) (Q105), by residence (Q006), by school enrollment (Q301), by type of caregiver (Q106)

Q709: Know the results of HIV test (Q006, 103, 105, 106, 301, 709)

- Frequency tabs. Note: to calculate the percentage of children who received an HIV test and who know their results, the numerator (n) is number of respondents who answer "Yes" to this question (those who ever tested and know their results) and the denominator (N) is a total number of respondents in the sample.
- Cross tabs by sex (Q103), by age (13, 14, 15, 16, 17 years) (Q105), by residence (Q006), by school enrollment (Q301), by type of caregiver (Q106)

Q708, 709: Prior HIV testing (Q006, 103, 105, 301, 708, 709)

Together, questions 708 and 709 provide information on prior HIV testing. Tables IV.14, IV.15.1 and IV.15.2 provide examples on how to present data on prior HIV testing for all children surveyed, by sex. In addition, we have included two charts (figures IV.6, IV.7) depicting some of the ways to present data on prior HIV testing.

Table IV.14. Prior HIV Testing

Percent distribution of children by testing status and by whether they received the results of the last test, the percentage of children ever tested, according to background characteristics, [country, year]						
Background characteristic	Percent distribution of children by testing status and by whether they received the results of the last test				Percentage ever tested	Number of children
	Ever tested and received results	Ever tested, did not receive results	Never tested[1]	Total		
Age						
10				100.0		
11				100.0		
12				100.0		
13				100.0		
14				100.0		
15				100.0		
16				100.0		
17				100.0		
Sex						
Male				100.0		
Female				100.0		
Residence						
Urban				100.0		
Rural				100.0		
School Enrollment						
Enrolled in school				100.0		
Not enrolled in school				100.0		
Total				100.0		

[1] Includes “don't know/missing”

Source: MEASURE DHS, 2012

Table IV.15.1. Prior HIV Testing: Boys

Percent distribution of boys by testing status and by whether they received the results of the last test, the percentage of boys ever tested, according to background characteristics, [country, year]						
Background characteristic	Percent distribution of boys by testing status and by whether they received the results of the last test				Percentage ever tested	Number of boys
	Ever tested and received results	Ever tested, did not receive results	Never tested[1]	Total		
Age						
10				100.0		
11				100.0		
12				100.0		
13				100.0		
14				100.0		
15				100.0		
16				100.0		
17				100.0		
Residence						
Urban				100.0		
Rural				100.0		
School Enrollment						
Enrolled in school				100.0		
Not enrolled in school				100.0		
Total				100.0		

[1] Includes “don't know/missing”

Source: MEASURE DHS, 2012

Table IV.15.2. Prior HIV Testing: Girls

Percent distribution of girls by testing status and by whether they received the results of the last test, the percentage of girls ever tested, according to background characteristics, [country, year]

Background characteristic	Percent distribution of girls by testing status and by whether they received the results of the last test				Percentage ever tested	Number of girls
	Ever tested and received results	Ever tested, did not receive results	Never tested[1]	Total		
Age						
10				100.0		
11				100.0		
12				100.0		
13				100.0		
14				100.0		
15				100.0		
16				100.0		
17				100.0		
Residence						
Urban				100.0		
Rural				100.0		
School Enrollment						
Enrolled in school				100.0		
Not enrolled in school				100.0		
Total				100.0		

[1] Includes “don't know/missing”

Source: MEASURE DHS, 2012

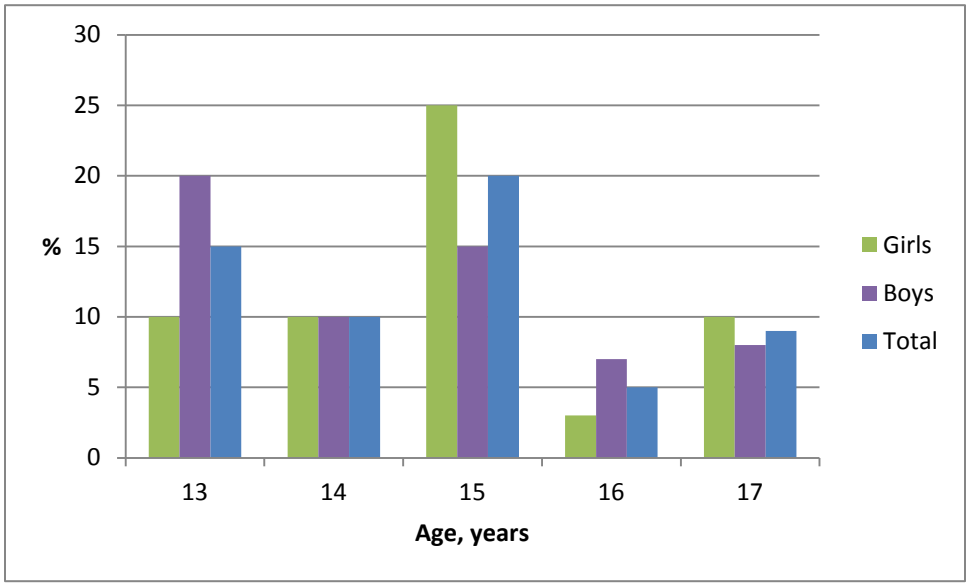


Figure IV.6. Percentage of children aged 13-17 years who have been tested for HIV and who received results, by age and sex.

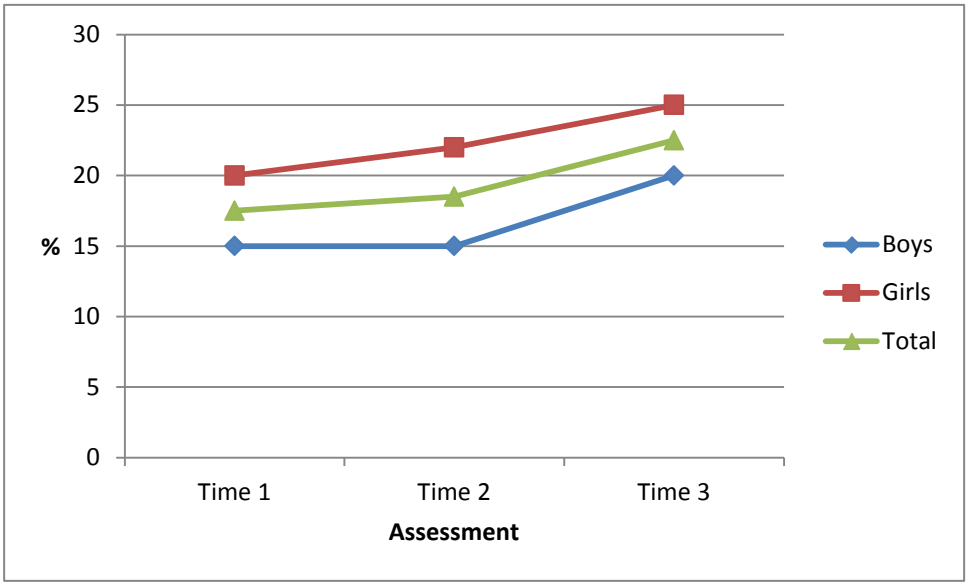


Figure IV.7. Percentage of children aged 13-17 years who have had an HIV test and who received results, over time.

Q710: Know of a place where people can go to get tested for the AIDS virus (Q006, 103, 105, 106, 301, 710)

- Frequency tabs. Note that total N is the number of respondents who responded to Q701 (Have you ever heard of an illness called AIDS?)
- Cross tabs by sex (Q103), by age (13, 14, 15, 16, 17 years) (Q105), by residence (Q006), by school enrollment (Q301), by type of caregiver (Q106)

OPTIONAL MODULE 5: Sexual Behavior

Optional Module Q5.1: Ever had sexual intercourse (Q006, 103, 105, 106, 301)

- Frequency tabs
- Cross tabs by sex (Q103), by age group (13-14, 15-17) (Q105), by school enrollment (Q301), by residence (Q006), by type of caregiver (Q106)
- Optional cross tabs with social support (Q606-609), with knowledge of HIV prevention methods (Q702, 703), with child development knowledge (Optional Module 3)

Optional Module Q5.2: Age at first sex (Q006, 103, 105, 106, 301)

- Mean, median, range
- Mean by sex (Q103), by residence (Q006), by school enrollment (Q301), by type of caregiver (Q106)

Optional Module Q5.3: Had sex in the past 1 year (Q006, 103, 105, 106, 301)

- Frequency tabs
- Cross tabs by sex (Q103), by age group (13-14, 15-17) (Q105), by school enrollment (Q301), by residence (Q006), by type of caregiver (Q106)
- Optional cross tabs with social support (Q606-609), with child development knowledge (Optional Module 3), with Q5.5 (used a condom at last sex), with knowledge of HIV prevention methods (Q702, 703)

Optional Module Q5.4: Number of sex partners in the past 1 year (Q006, 103, 105, 106)

- Mean, median, range
- Mean by sex (Q103), by age group (13-14, 15-17) (Q105), by residence (Q006), by type of caregiver (Q106)
- Optional Module Q5.5: Condom use at last sex (Q006, 103, 105, 106, 301)
- Frequency tabs
- Cross tabs by sex (Q103), by age group (13-14, 15-17) (Q105), by school enrollment (Q301), by residence (Q006), by type of caregiver (Q106)
- Optional cross tabs with social support (Q606-609), with knowledge of HIV prevention methods (Q702, 703), with child development knowledge (Optional Module 3)

Section 8: Access to HIV Prevention, Care, and Support

Q801. Services received (Q006, 103, 105, 106, 801)

- Frequency tabs. Note that multiple responses are allowed for this question. Therefore, we do not expect responses to tally to 100 percent. The total N for items a-d is the number of respondents in the sample. The total N for items e-g is the number of 13 to 17-year-old respondents. The total N for item h is the number of 15 to 17-year-old respondents.
- Cross tabs by sex (Q103), by residence (Q006), by type of caregiver (Q106)
- Cross tabs of specific services with other reports, e.g., receiving information on how to prevent HIV and other sexually transmitted infections (item e in Q801) among those who ever had sexual intercourse (Optional module Q6.1, if applicable), among those who used a condom at last sex (Optional module Q6.5, if applicable)

Section 9: Weight, Height, and MUAC

901*: Weight, height and mid-upper arm circumference (MUAC) (Q006, 103, 105, 901)

- Calculate mean Z-scores for height-for-age, and BMI-for-age by age (Q105), sex (Q103) and residence (Q006).[9]
- Calculate the percentage below 3 standard deviations (SD) and below 2 SD for height-for-age. Calculate the percentage below 3 SD, below 2 SD and above 2 SD for BMI-for-age. Present calculations, by age (Q105), sex (Q103) and residence (Q006). Please see Table IV.16 for examples of how to present the nutritional status of children in the sample. Please see Appendix 3 for guidance on calculating the indicators of the attained growth standards using the WHO AnthroPlus software.
- Calculate the range, mean and median of mid-upper arm circumference (MUAC) measurement[10] by age group (10-14, 15-17) (Q105)
- If applicable, trends in nutritional status of children (percentage below 2 SD for height-for-age, below 2 SD for BMI-for-age, over time). Please see Figure IV.8 below for an example.

[9] The WHO guidance on computation of Z-scores for height-for-age, weight-for-height and weight-for-age is available at http://www.who.int/childgrowth/standards/Chap_7.pdf. Also, see the WHO growth reference data at http://www.who.int/growthref/en/.

[10] Guidance on use of MUAC for children 5+ years is expected.

Table IV.16. Nutritional Status of Children

Percentage of children classified as malnourished according to two anthropometric indices of nutritional status: height-for-age and BMI-for-age, by background characteristics, [country, year]								
	Height-for-age			BMI-for-age				
Background characteristic	Below -3 SD	Below -2 SD[1]	Mean Z-score (SD)	Below -3 SD	Below -2 SD[1]	Above +2 SD	Mean Z-score (SD)	Number of children
Age								
10-14								
15-17								
Sex								
Male								
Female								
Residence								
Urban								
Rural								
Total								

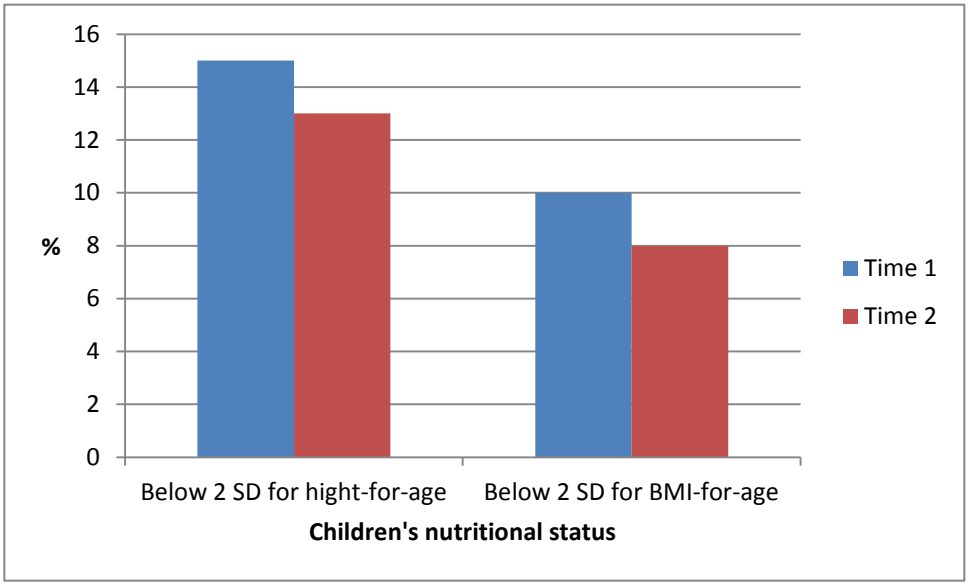


Figure IV.8. Percentage of children aged 10-14 years who are malnourished at baseline and endline.

APPENDIX 1. REFRESHER ON BASIC ANALYSIS

A. Variables

A **variable** is any characteristic of the cases (or units) being studied that varies. A variable must have two or more values, also called a "level." For example, the variable "age" may have many values that are expressed in number of years. Please see table A.1 below.

Table A.1. Examples of the Variables and Their Values

Variable	Values (levels)
Sex	Male, Female
Residence	Urban, Rural
Age	Number of years old

We can distinguish between two types of variables according to the level of measurement:

1. Continuous or Quantitative Variables. Their values differ in magnitude, *e.g.*, income, age, etc.
2. Categorical or Qualitative Variables. Their values differ in kind, *e.g.*, marital status, gender, religion, etc.

In the example above, "sex" and "residence" are categorical variables and "age" is a continuous variable.

We can distinguish between two types of variables according to their role in causing or influencing another variable:

1. Independent Variable causes or influences another variable. It is also called a predictor variable, determinant, and a risk factor. Independent variable is symbolized as X.
2. Dependent Variable is caused or influenced by another variable. It is also called an outcome variable and an effect variable. Dependent variable is symbolized as Y.

B. Hypothesis Testing

The *null hypothesis* is always a statement that "there is no difference" or "no impact" between the variables of interest. For example, if we were interested in the effect of our intervention on children's enrollment in school, our null hypothesis would be: there is no difference in school enrollment among children between baseline and endline.

An a*lternate hypothesis* is your best guess as to the relationship between variables. For the same study, an illustrative example of an alternate hypothesis would be: there is a difference in school enrollment among children between baseline and endline.

C. Statistical Significance Tests

Statistical significance tests allow you to estimate how likely it is that your results are due to chance alone. All the different statistical tests are interpreted using the same guidelines. Evaluators typically set the benchmark for statistical significance at the .05 level. This is sometimes called the alpha level or the p value (for probability of error). That is, we set the benchmark so that we are at least 95 percent certain that the sample results are not the result of random chance. Saying that the results are statistically significant at the .05 level means that we are 95 percent certain that our sample results are not due to chance. If we want to raise the bar, we would set the level at .01 to be 99 percent certain that the sample results are not due to chance alone (IPDET, 2013).

There are a variety of statistical tests. The type of dependent and independent data (categorical or continuous) defines the type of statistical test that can be used for the analysis. We briefly outline a few of those tests that are most commonly used and most relevant to work with OVC.[11]

T-test

A t-test is used to determine if one group of numerical scores is statistically higher or lower than another group of scores. This analysis is appropriate when you want to compare the means of two groups. It is especially appropriate when you want to compare the mean scores of the group who received a program or intervention with the mean scores of the comparison or control group (who did not receive the program or intervention). Please see table A.2 for examples of research questions that could be answered by using a t-test. When we are looking at the differences between scores for two groups, we have to judge the difference between their means *relative* to the spread or variability of their scores. The t-test does just this. There are two types of t-tests:

1. Paired t-test (scores from the same group of people are compared before intervention and after intervention). For example, we might be interested in whether Household Dietary Diversity scores change among a group of caregivers after the intervention.
2. "Independent" t-test (scores from two different groups are compared). For example, we might want to know whether female or male headed households have higher Household Dietary Diversity scores.

[11] More information on statistical tests can be found in statistical resources, including: de Smith, M. J. (2011). STATSREF: Statistical analysis handbook-A web-based statistics resource. Available at http://www.statsref.com/.

Table A.2. Examples of Research Questions that Can Be Answered by Conducting a T-test

Example research question	Categorical variable, two levels	Continuous variable
Are there differences in age between children who report going a whole day and night without eating anything in the past four weeks and those who do not?	Irregular food intake (going a whole day and night without eating anything in the past four weeks and those who): Yes, No	Age of a child
Are there differences in Household Dietary Diversity score at baseline and endline?	Assessment: Baseline, Follow up	Household Dietary Diversity score
Are there differences in age at first sex between girls and boys?	Sex: Boys, Girls	Age at first sex
Are there differences in Child's Hunger score between children in rural and urban areas?	Residence: Urban, Rural	Child's Hunger score

Analysis of variance

The reason for doing an analysis of variance (ANOVA) is to see if there is any difference between groups on a given variable.

What ANOVA looks at is the way groups differ internally versus what the difference is between them. In other words, it compares variation within each group with variation between groups. If the Between Group Variation is significantly greater than the Within Group Variation, then it is likely that there is a statistically significant difference between the groups. The statistical package you are using will give you an "F ratio," which will tell you whether it is significant or not. Please see table A.3 for examples of research questions that can be answered using ANOVA.

Table A.3. Examples of Research Questions that Can Be Answered by Conducting ANOVA

Example research question	Categorical variable, more than two levels	Continuous variable
Are there differences in Household Dietary Diversity scores among households in Region A, Region B, and Region C?	Region: Region A, Region B, Region C	Household Dietary Diversity score
Are there differences in Child's Hunger scores among children 10-12, 13-14, and 15-17 years old?	Age group: 10-12, 13-14 and 15-17 years old	Child's Hunger score

The chi-square test of independence

The chi-square test of independence measures whether two variables are independent of one another, based on observed data. The chi-square test of Independence tests the association between two categorical variables.[12]

When you set up a hypothesis to test, your null hypothesis would be that there is no association between the two variables. Your alternate hypothesis would be that there is an association between the two variables.

If there is a significant difference (our significance level is less than .05), we can say that the two variables are associated. Please see table A.4 for examples of research questions that can be answered using a chi square test.

Table A.4. Examples of Research Questions that Can Be Answered by Conducting a Chi-Square Test

Example research question	Categorical variable, levels	Categorical variable, levels
Is there association between irregular food intake (as reported by children 10-17 years old) and type of the caregiver?	Irregular food intake (Went a whole day and night without eating anything because there was not enough food): Yes, No	Type of caregiver: Biological parent, Non-biological parent
Is there association between household food insecurity (as reported by caregivers) and residence?	Residence: Urban, Rural	Food insecurity (Reporting of no food to eat of any kind in the household because of a lack of resources to get food in the past four weeks): Yes, No
Is there association between an individual's sex and school enrollment?	Sex: Boys, Girls	School enrollment: Yes, No
Is there association between having a birth certificate and residence?	Residence: Urban, Rural	Having a birth certificate: Yes, No

Simple Linear Regression

Simple linear regression is used to explore the relationship (direction and magnitude) between two continuous variables. In addition, simple linear regression measures change in one variable resulting from change in another. Also, it measures the value of the response associated with the

12 This test is based on a cross tabulation or contingency table. The chi-square statistic is the sum of the contributions from each of the individual cells in a data table. Every cell in the table contributes something to the overall chi-square statistic. If a given cell differs markedly from the expected frequency, then the contribution of that cell to the overall chi square is large. If a cell is close to the expected frequency for that cell, then the contribution of that cell to the overall chi-square is low. A large chi-square statistic indicates that somewhere in the table, the observed frequencies differ markedly from the expected frequencies. It does not tell which cell (or cells) is causing the high chi-square, only that they exist.

value of the explanatory variable. The objective is to explain or predict values of Y resulting from X. The object of interest is the population regression model or equation of the form:

$$y=\alpha+ \beta x+e$$

where y is a typical value from one of the subpopulations of Y, alpha and β are the population y-intercept and slope of the regression equation and e is the error term

If p-value for β coefficient is less than 0.05, we may conclude that with one unit increase in X, variable Y changes by β units. For multiple regression ($y=\alpha+ \beta_1 x_1+ \beta_2 x_2+ \beta_3 x_3+ \beta_n x_n+e$), if p-value for one of the β coefficients is less than 0.05, we may conclude that with one unit increase in the corresponding variable, variable Y changes by β units, holding all other variables constant. Please see table A.5 for examples of linear regression models that could be tested with data collected with Child and Caregiver questionnaires.

Table A.5. Examples of Multivariate Linear Regression Models that Could Be Tested with Data Collected with Child and Caregiver Questionnaires

Example research question	Dependent Variable (continuous)	Independent variables (categorical or continuous variables)
What variables influence child's food insecurity as measured by Child's Hunger Scale score?	Child's Hunger Scale score	-Type of caregiver -Education of caregiver -Sex of caregiver -R -Number of esidence household members
What variables influence Child's Dietary Diversity?	Dietary Diversity Score	-Type of caregiver -Age of caregiver -Residence

Logistic regression

Logistic regression is perfect for situations where you are trying to predict whether something "happens" or not, such as whether a child attends school, works, or knows his/her HIV status. Logistic regression is used when the dependent variable is binary. The dependent variable in a logistic regression is the log of the odds ratio, i.e., ($ln(p/(1-p))$). The regression equation is

$$Logit = a + bX1 + cX2$$

The coefficients in a logistic regression equation are difficult to interpret because they are in log-odds units; therefore, they are often converted into odds ratios.

Please see table A.6 for examples of logistic regression models that could be tested with data collected with Child and Caregiver questionnaires.

Table A.6. Examples of Logistic Regression Models that Could Be Tested with Data Collected with Child and Caregiver Questionnaires

Example research question	Dependent Variable (categorical variable)	Independent variables (categorical or continuous variables)
What variables influence school enrollment?	Enrolled in school	• Type of caregiver • Residence • Child's age • Child does HH chores • Child does other work
What variables influence children's irregular food intake?	Irregular food intake (Went a whole day and night without eating anything because there was not enough food to eat)	• Type of caregiver • Sex of the head of the household • Age of caregiver • Residence
What variables influence progression in school?	Progression in school	• Child's age • Child's sex • Type of caregiver • Residence
What variables influence household food insecurity, as reported by caregivers?	Food insecurity due to lack of resources (reporting of no food to eat of any kind in the household because of a lack of resources to get food in the past four weeks)	• Education of the caregiver • Sex of the head of the household • Residence • Household size

D. Presenting Data When There Is a Comparison Group and/or Data from a Second Point in Time

Depending on your study design, you might want to present data for baseline and endline assessments, for intervention and comparison groups, or for both. The tables below provide some examples of presenting such data.

Presenting data when there is a second point in time

If you want to evaluate a program, you may need to analyze data obtained from at least two surveys conducted at two points in time. Table A.7 provides an example of presenting knowledge of AIDS in two time assessments.

Presenting data if there is a comparison group

If you want to attribute observed changes to the program, you will need to compare data between intervention and comparison groups. Table A.8 provides an example of presenting knowledge of AIDS for intervention and comparison groups.

Presenting data if there is a comparison group and data from a second point in time

If you want to have the strongest case for attributing positive change to program interventions, you would need to compare data between intervention and comparison groups at the endline, taking into account their baseline data. Table A.9 provides an example of presenting knowledge of AIDS for intervention and comparison groups at two time points.

Table A.7. Knowledge of AIDS

Percentage of children who have heard of AIDS by background characteristics, [country, year/assessment/time 1, year/assessment/time 2]				
Background characteristic	Assessment 1		Assessment 2	
	Have heard of AIDS	Number of children	Have heard of AIDS	Number of children
Age				
13-14				
15-17				
Sex				
Male				
Female				
Residence				
Urban				
Rural				
School Enrollment				
Enrolled in school				
Not enrolled in school				
Total				
p-value				

Table A.8. Knowledge of AIDS

Percentage of children who have heard of AIDS by background characteristics and program participation [country, year]				
Background characteristic	Comparison Group		Intervention Group	
	Have heard of AIDS	Number of children	Have heard of AIDS	Number of children
Age				
13-14				
15-17				
Sex				
Male				
Female				
Residence				
Urban				
Rural				
School Enrollment				
Enrolled in school				
Not enrolled in school				
Total				
p-value				

Table A.9. Knowledge of AIDS

Percentage of children who have heard of AIDS by background characteristics and program participation over time [country, time 1, time 2]								
Background characteristic	Time 1				Time 2			
	Comparison Group		Intervention Group		Comparison Group		Intervention Group	
	Have heard of AIDS	Number of children	Have heard of AIDS	Number of children	Have heard of AIDS	Number of children	Have heard of AIDS	Number of children
Age								
13-14								
15-17								
Sex								
Male								
Female								
Residence								
Urban								
Rural								
School Enrollment								
Enrolled in school								
Not enrolled in school								
Total								
p-value								

As we mentioned earlier, there are a variety of analyses that can be conducted for an evaluation. We provide one example of how to run an evaluation model for two groups and two time assessments in table A.10.

Table A.10. Example of an Evaluation Model for Two Groups with Baseline and Endline Data Where a Quasi-experimental Design Was Applied

Example research question	Dependent Variable	Independent variables
Are there changes in regular children's school attendance at endline?	Regular school attendance at endline	• Regular school attendance at baseline • Group (intervention vs. comparison)

E. Sampling Weights

Analysts should be aware that, in many cases, data must be weighted. Sampling weights are adjustment factors applied to each case in tabulations to adjust for differences in the probability of selection and interview between cases in a sample, either due to design or happenstance. In surveys, many times the sample is selected with unequal probability to expand the number of cases available (and hence reduce sample variability) for certain areas or subgroups for which statistics are needed. For example, when schools have equal selection probabilities but only ten

students/pupils are surveyed from each school, this gives students from large schools a smaller chance of being surveyed. If the sample design does not give each student an equal chance of being selected, data should be weighted. In this case, weights need to be applied when tabulations are made to enable proper representation. When weights are calculated because of sample design, corrections for differential response rates may also be made.

Notes and considerations (Rutstein & Rojas, 2006)

1. The sum of the sample weights only equals the number of cases for the entire sample and not for subgroups such as urban and rural areas.

2. Where there are no differential probabilities, weights may not be calculated since weights based just on response rates usually make little difference in results.

3. Use of sample weights is appropriate when representative levels of statistics are desired, such as percentages, means, and medians.

4. Use of sample weights is inappropriate for estimating relationships, such as regression and correlation coefficients.

APPENDIX 2. REFRESHER ON CHARTING

Charts and graphs are used to portray trends, relationships, and comparisons. Different types of charts are used to display different types of data and relationships.

Bar charts are used to compare data across categories. Please see an example in figure A.1 below.

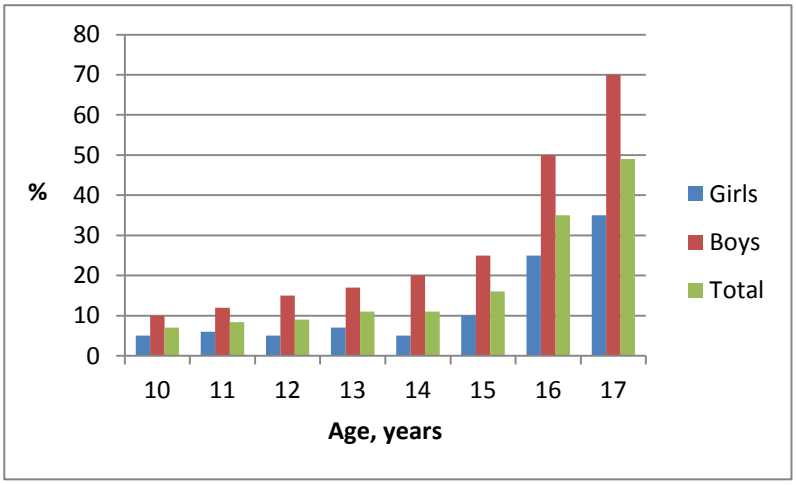


Figure A.1. Percentage of children who work, by age and gender.

This bar chart tells us that the percentage of children who work increases with age and that more boys in comparison to girls work at any age.

Line graphs are used to display trends over time. Please figures A.2 and A.3 below for examples of presenting data in line graphs.

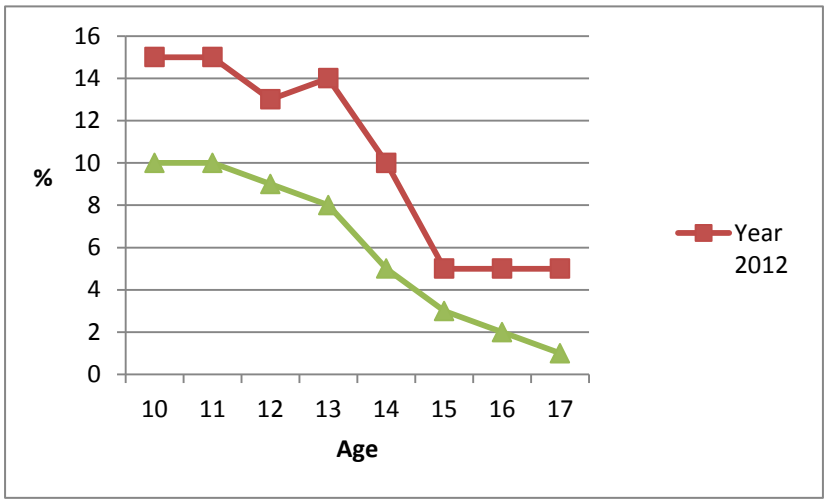


Figure A.2. Percentage of children who went a whole day and night without eating anything in the past four weeks, by age.

This line graph (figure A.2) tells us that the percentage of children who report irregular food intake decreases with age. In addition, we see that fewer children report irregular food intake in Year 2013 compared to Year 2012 for all ages.

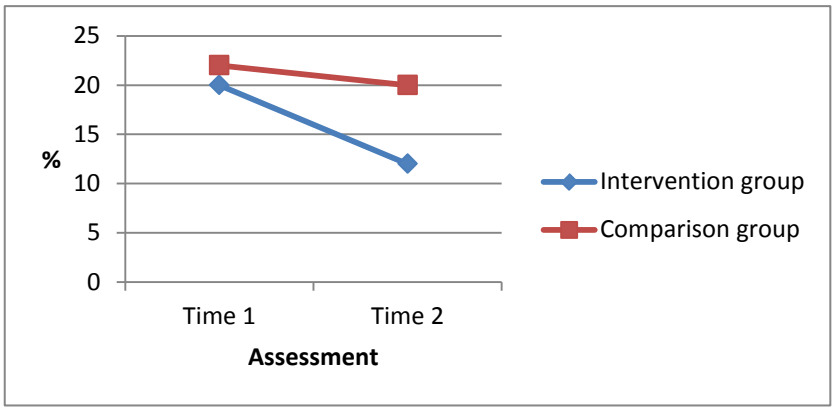


Figure A.3. Percentage of children who went a whole day and night without eating anything in the past four weeks, by group, over time.

This line graph (figure A.3) tells us that even though there were no big differences in irregular food intake between intervention and comparison groups at Time 1, these differences became apparent at Time 2. These changes in outcome could be due to a program. However, to make conclusions on program effectiveness, we would need to run a statistical model to see if these differences are statistically significant.

Pie charts show percentages or the contribution of each value to a total. In pie charts, the values always add up to 100. Please see figure A.4 for an example.

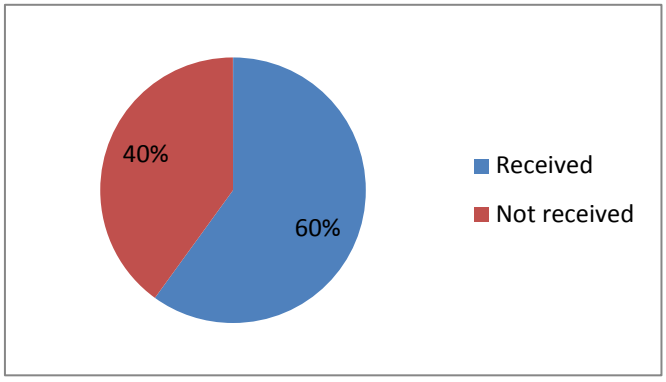


Figure A.4. Percentage of children aged 15-17 who received life skills training.

This pie chart (figure A.4) tells us among all 15 to 17-year-old children surveyed, more than half received life skills training: 60 percent received life skills training, and 40 percent did not.

We can create another pie chart that would show sex distribution of the children (i.e., of those 60 percent) who received the life skills training. Please see figure A.5 below.

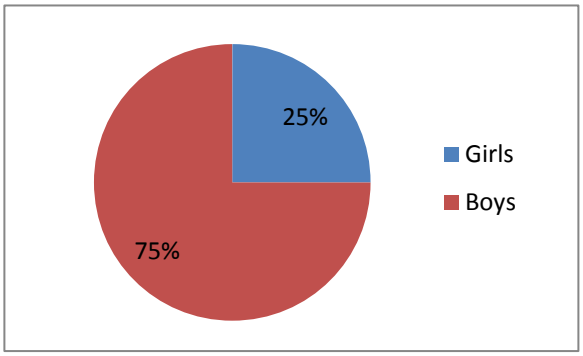


Figure A.5. Sex distribution of children 15-17 years old who received life skills training.

This pie chart (figure A.5) tells us that the majority of children who received the life skills training were boys: 75 percent of children who received the training were boys, and only 25 percent were girls.

We may also want to show the percentages of boys who received the training out of all boys in the sample and the percentages of girls who received the training out of all girls in the sample. Please see figures A.6 and A.7 below.

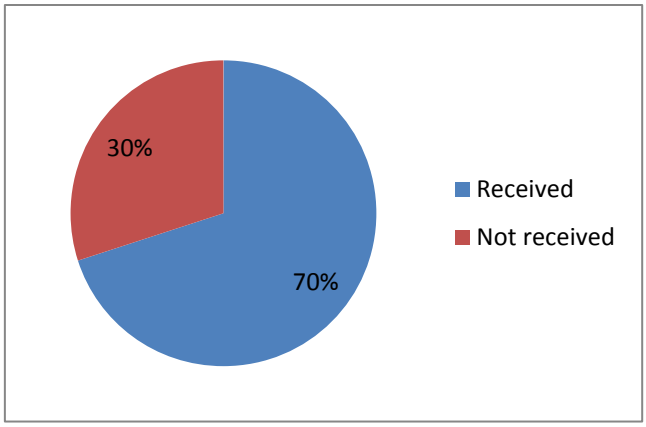


Figure A.6. Percentage of boys aged 15-17 who received life skills training.

This pie chart (figure A.6) tells us that most of the boys in the sample received the life skills training: 70 percent of all boys in the sample received the life skills training and 30 percent did not.

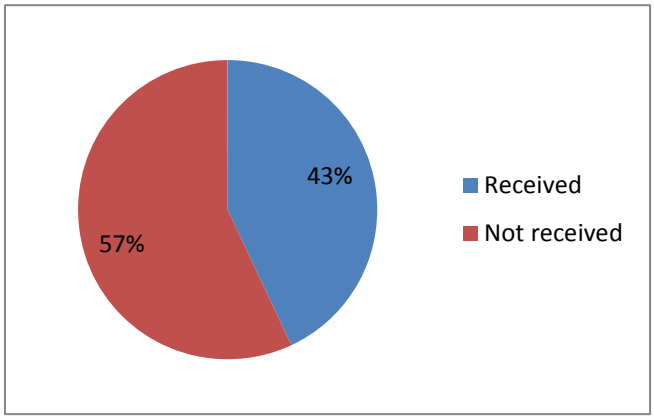


Figure A.7. Percentage of girls aged 15-17 who received life skills training.

This pie chart (figure A.7) tells us that 43 percent of all girls in the sample received the life skills training and 57 percent did not.

However, a bar chart might be a better option to show these sex differences. Please see figure A.8 for an example of how to present these data.

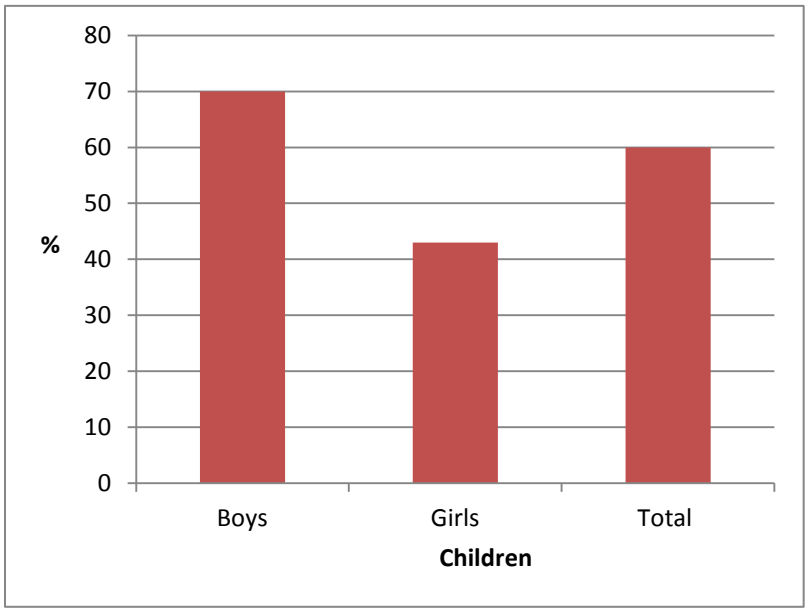


Figure A.8. Percentage of children 15-17 years old who received life skills training, by sex.

This bar chart (figure A.8) tells us that 60 percent of all children in the sample received the life skills training. The proportion of boys who received the training is greater than proportion of girls (70 percent of boys received the training compared to 43 percent of girls). We would need to run a chi-square test to establish whether these sex differences in receiving the training are statistically significant or not.

APPENDIX 3. INSTRUCTIONS ON CALCULATING THE INDICATORS OF THE ATTAINED GROWTH STANDARDS USING THE WHO ANTHROPLUS SOFTWARE

WHO Web sites:

http://www.who.int/childgrowth/software/en/
and
http://www.who.int/growthref/tools/en/)

provide all five macros, i.e. the R, SAS, S-Plus, SPSS and STATA macro to calculate the indicators of the attained growth standards for children 0-5 and 5-19 years old (length/height-for-age, weight-for-age, weight-for-length, weight-for-height, body mass index-for-age, etc.).

Instructions on using the WHO software called AnthroPlus to calculate the indicators of the attained growth standards (WHO, 2009). The WHO AnthroPlus software and manual can be downloaded from http://www.who.int/growthref/tools/en/.

1. Download the software and manual from: http://www.who.int/growthref/tools/en/.
   Please read the manual sections on requirements and installation before installing the software.

2. Open the Nutritional Survey module by clicking on the respective button on the *Start* window or selecting it from the *Application* menu.

3. Prepare the data file to be imported to the NS module:

   a. Record date of birth (DoB) in a format day/month/year (DD/MM/YYYY):

      - To apply the WHO standards for 0-5 years the software uses DoB and date of visit (DoV) to calculate the precise age in days:

        Age (in days) =DoV-DoB

      - To apply the WHO reference 2007 for 5-19 years, the software uses DoB and DoV to calculate the age in months.

        Age (in months) = DoV-DoB

Good Practices

- ✓ *If a data file contains many variables, it is recommended to import into WHO AnthroPlus only the relevant data variables needed for deriving z-scores and then export the data back and merge with the original file. For that purpose it is important to include in the imported file a variable that defines a unique ID for each record.*
- ✓ *Always keep a copy of the original raw data as a backup.*
- ✓ *Once no longer needed in WHO AnthroPlus, export the file and delete from the module.*

b. Recode Sex values so that 1= male and 2= female;

c. Make sure that the file contains the following variables: ID, SEX, DoB, DoV, Weight, Height, Sampling weight;

d. Save the data file in *.REC, *.DBF, *.TXT, *.CSV or *.XML formats. Please note that *.TXT, *.CSV only differ by the character used to separate fields:

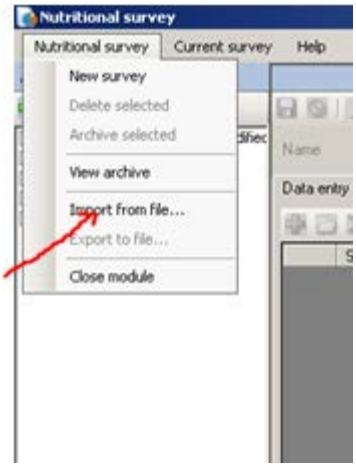
- *.TXT files use a tab (Unicode 9)
- *.CSV files use a semicolon (Unicode 59).

Variables that require specific formats are:

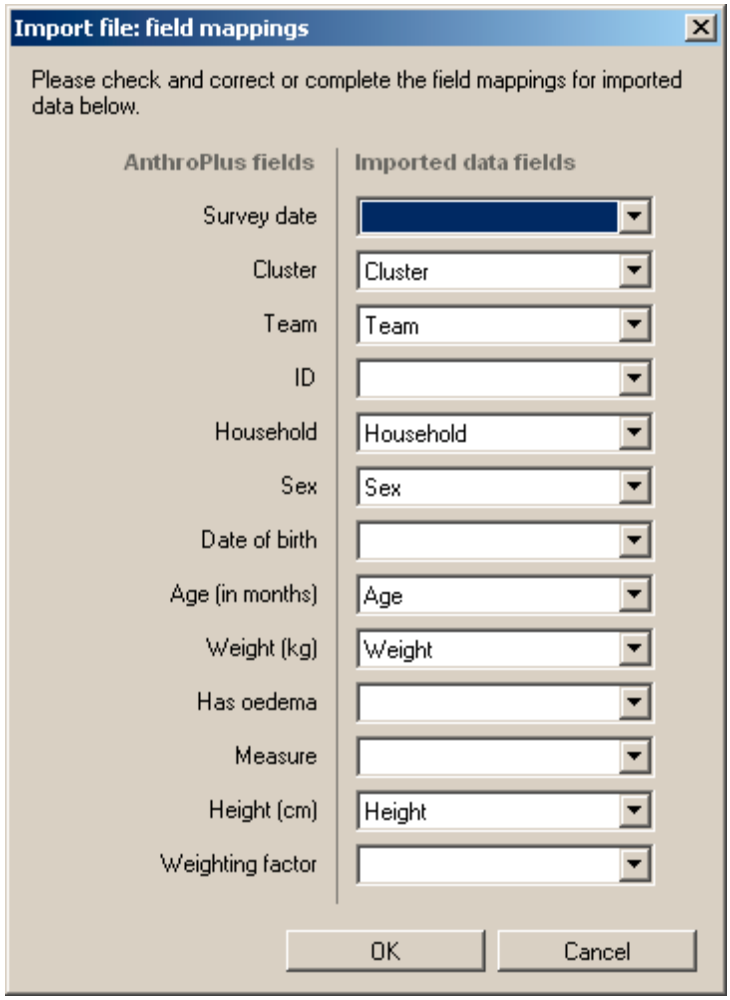
Cluster, Team, ID and Household:	numeric integer value
Sex:	numeric value with 1= male and 2= female
Age in months:	numeric values with max. 5 decimals
Weight:	numeric value (in kg) with max. 2 decimals
Height:	numeric value (in cm) with max. 2 decimals
Oedema:	text variable with y=yes and n=no
Sampling weight:	numeric value with max. 16 decimals

Please refer to page 41 in the WHO AnthroPlus manual for more information on file formats.

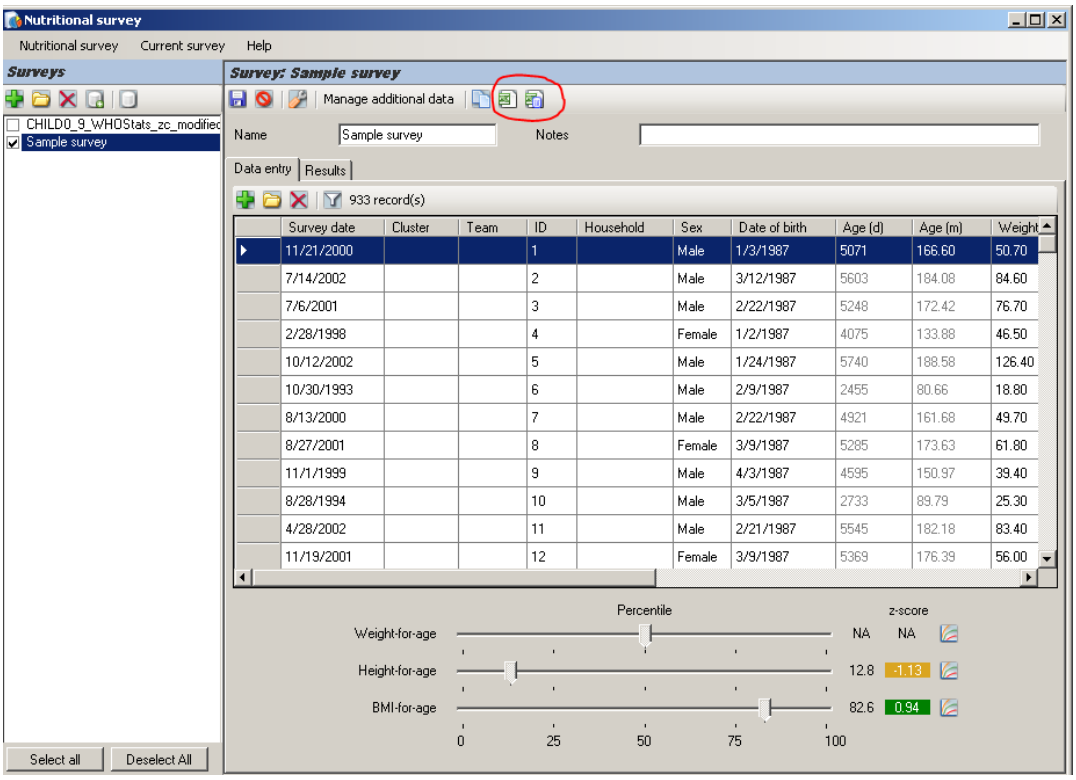
4. Import the data file by clicking "Import from file" option under the "Nutritional survey" tab and indicating the location of the data file in your computer (see image).



To import files in TXT, CSV, REC (EpiInfo data files) and DBF format, the user has to map all basic AnthroPlus fields with the variable in the original file (see image). Note that sex is the only mandatory data field, other missing fields may generate warning messages but the record will still be accepted.



5. Produce the report. After importing the data, the user can choose several analysis report options (see image).



The report options are the following:

- Standard report. Under this option the user can further specify if a correction for clustering needs to be applied in case of a cluster sample design. The *Standard* analysis makes maximum use of the collected data and includes for each indicator all valid z-scores. With or without correcting for cluster
- sampling, the outputs show prevalence by age groups and totals, stratified by sex for the common cutoffs, with means and SDs of z-scores, and 95% confidence intervals.
- Estimates report. This option produces an analysis output following a standard data-entry format without 95% CIs. The analysis also uses all valid z-scores to make full use of the available data in the survey, similar to the Standard report. The sample sizes pertaining to the weight-for-age indicator are used as the overall and disaggregated N for reporting purposes in this report. Given that this report does not include the CIs, the correction for cluster sampling is irrelevant and the user does not have tomake a choice.

6. Use data from the report produced by the WHO AnthroPlus software to populate tables III.15 and IV.16 on Nutritional Status of Children in the OVC data analysis guide.

Note: The WHO AnthroPlus software provides results for 0-5, 6-11, 12-23, 24-35, 36-47, 48-60 months, as well as for 5-9, 5-19, 10-14 and 15-19 years. In order to present totals for the 0-60 months age group, as well as to present sex- and location-disaggregated data for this group, please use the WHO Anthro software (the WHO Anthro software may be downloaded from http://www.who.int/childgrowth/software/en/)

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