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

Results and Lessons Learned from the 2013 Pilot Tests in Zambia & Nigeria

MEASURE Evaluation
SPECIAL REPORT

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1. Introduction

MEASURE Evaluation has produced a set of questionnaires for measuring quantitative child outcomes and caregiver/household outcomes. Questionnaires were developed with the support of the PEPFAR orphans and vulnerable children (OVC) 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.

The questionnaires include a number of verifiable questions (e.g., weight, documented immunizations). However, some questions may be open to interpretation for both the respondent and the data collector. Furthermore, some of the sections include questions that may be duplicative (e.g., income and expenditure, or items of a psychosocial well-being assessment scale). Others contain questions that ask respondents to recall their state of well-being up to one month prior to survey.

To finalize the questionnaires for public use, we pilot-tested them in Zambia and Nigeria in 2013. Findings from the pilot test informed revisions of the questionnaires. This report presents the methodology and findings of the pilot test, as well as the nature of the revisions to questions and procedures after pilot testing.

2.   Objectives of the Pre-test

The **objectives** of the pre-test were to:

- test the construct validity of some questions and concepts;
- pre-test the reliability of scales;
- determine whether any questions may be duplicative and, in some instances, to enable a choice between different question versions;
- test the clarity of the question sets as an entirety;
- assess the reliability of recall periods and, in some cases, assess different recall periods; and
- test field application of the tools, including length of time to conduct interviews and ease of application.

The findings from these validation activities provided the basis for tool revisions.

3. Pilot Test Methodology

3.1. Setting/Context

The questionnaires were pilot tested in Zambia and Nigeria. In Zambia, the questionnaires were adapted for a three-year USAID-funded impact evaluation of savings and internal lending communities (SILC) on child well-being, led by Futures Group.[1] The SILC intervention was being rolled out under the USAID-funded STEPS OVC program, primed by World Vision. In Nigeria, the questionnaires were adapted for potential use in the baseline assessment of the Umbrella Grant Mechanism (UGM) Scale-Up of Care and Support Services for OVC program in 10 selected states in Nigeria. Catholic Relief Services and Save the Children are leading the two consortiums implementing the awards. However, the pilot itself was conducted in partnership with the PACT Rapid and Effective Action Combatting HIV/AIDS (REACH) program and the Catholic Dioceses of Lafia in Akwanga, Nasawara State.

3.2. Methods

We applied a three-step methodology: (1) validation of the translation of the questionnaire with data collectors in a training setting; (2) cognitive interviews with potential respondents; and (3) pilot-testing the full questionnaires at the household level. These studies were approved by Health Media Labs, Inc., in the United States, the Biomedical Research IRB in Lusaka, and the National Health Research Ethics Committee in Abuja.

3.2.1. Validation of Translation

During the data collector training for each pilot test, the trainer led a discussion on each questionnaire. The purpose was to orient data collectors to the questionnaire, enable them to seek clarification on measures, and validate the translation. Data collectors considered whether the terms and translations accurately reflected the intent of each question. Final changes to the questionnaires were made by the original translator of the questionnaires.

3.2.2. Cognitive Interviews

Cognitive interviewing is a qualitative research technique used to help design questionnaires by determining whether respondents understand the questions and are able to produce expected responses (de Leeuw, Borgers & Smits, 2004). Cognitive interviewing is particularly important to assess the developmental validity of questionnaires used with children and adolescents (Woolley, Bowen & Bowen, 2004) and is a step in the questionnaire development process that takes place after drafting and expert review, but ideally before field pilot testing of the questionnaire. In Zambia, due to time constraints, cognitive interviews and the household pilot test occurred simultaneously. In Nigeria, we conducted cognitive interviews prior to the household pre-test.

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[1] Only data that relate to the OVC survey tools are presented here.

Sampling — In Zambia, we conducted 28 cognitive interviews with 12 adults and 16 children. We purposively sampled participants from the program beneficiary list in one ward. In Nigeria, we selected a purposive sample of 12 caregivers and 16 children from a list of households that had previously received services from PACT Nigeria/Catholic Dioceses of Lafia. Details of the sample are presented in Table 1.

Table 1.   Cognitive Interview Sample

Country	Location	Adults		Children aged 10-12		Children aged 13-17	
		Male	**Female**	**Male**	**Female**	**Male**	**Female**
Zambia	Rural	2	4	2	2	2	2
	Urban	2	4	2	2	2	2
Nigeria	Rural	2	4	2	2	2	2
	Urban	0	6	2	2	3	1

Because the tools were too large to complete in a cognitive interview session and not all questions required validation (e.g., questions borrowed from the Demographic and Health Survey), each interview focused on select sections of the tools (one "group" of questions).

Recruitment — The implementing organizations helped facilitate recruitment and enrollment in the study. In most cases, an OVC volunteer introduced the caregiver to the trained data collector. The data collector then described the research study to the potential participant. If he/she expressed interest in participating, the data collector commenced consent procedures. Prior to beginning the interview, the data collector obtained verbal informed consent from adult participants and verbal informed assent from children aged 10-17 years. The interviewer documented consent and assent with their signature, printed name, and date.

Data Collection Procedures — Trained data collectors read each question and recorded the participant's response. The data collector then probed for participant's understanding of the question by asking the following questions and recording responses on the Cognitive Interviewing Observations Form[2]:

- What do you think this question is asking you? Can you repeat the question I just asked in your own words? What does the phrase/word [use a phrase/word in the question] mean to you? What do you think we meant by [use a phrase/word in the question]?
- Can you tell me what you were thinking about when you gave this response? How did you arrive at that answer? How did you come up with/remember that response?
- Thinking about people like you who might be asked this question, what is unclear about this question? *Was the question easy or hard to answer?*

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[2] The probes in italics were used in Nigeria only to obtain more detailed information from participants.

- Did you hope you could give a different kind of response than the choices you were given? I noticed that it took some time for you to think of how you wanted to respond to this question. Was it because the choices you had for responding were not clear to you or for some other reason?

At the end of the interviews, data collectors completed a Summary Form, recording observations and patterns across all interviews. The Summary Form posed three questions:

- Were there certain types of questions or concepts in these sections that <u>most</u> respondents had difficulty understanding?
- Were there certain types of response choices in these sections that <u>most</u> respondents had difficulty understanding?
- How can we improve these sections of the questionnaire so that respondents will be better able to understand the questions and give appropriate responses?
- For the Nigeria pilot we added a fourth question:
- Were there certain <u>types</u> (male, urban, etc.) of respondents that had the most difficulty with this question?

3.2.3. Pilot Test of Full Tools

We pilot tested the full data collection tools through a household pre-test to test understanding, question flow, and to determine the time needed to complete a full questionnaire, including recruitment.

Sampling — We pilot tested the data collection process and all tools among 21 households in Zambia and 20 households in Nigeria. In Zambia, we purposively sampled households from the program beneficiary list in one ward. In Nigeria, we selected a purposive sample from a list of households that had previously received services from PACT Nigeria/Catholic Dioceses of Lafia. The pre-test sample is described in Table 2.

Table 2. Household Pre-test Sample

Country	Location	Number of Households Sampled
Zambia	Rural	21
	Urban	0
Nigeria	Rural	10
	Urban	10

Recruitment — Two data collectors approached each household with the support of a STEPS OVC Community Caregiver (Zambia) or a PACT/REACH community volunteer (Nigeria). Data collectors sought informed consent to participate from each adult participant and in the case of a child participant, from a parent or legal guardian, and child assent.

Data Collection Procedures — Data collectors first administered the Caregiver Questionnaire (or the Head of Household Questionnaire in Zambia). Caregivers were interviewed out of earshot

of school-age children and other adults in the household, including their spouse. One child aged 0-9 years, and one child aged 10-17 years, were then selected for interview using the Kish grid (Kish, 1949). Data collectors administered the questionnaire for children aged 0-9 years to the adult caregiver, and the questionnaire for children aged 10-17 directly to the selected child with his/her assent. Child participants were interviewed within plain sight, but out of earshot of their guardians/other adults.

In Nigeria, data collectors returned to 10 of the 20 households the day after the survey to conduct a reliability check of 16 key measures (see Appendix 1 for the list of questions). Data collectors asked each respondent to answer each question a second time and if the response differed, then asked: "Previously you answered ____. Can you explain the difference?" There was space to write down their explanation as well as to select from a list of possible responses including: Did not understand; Confused by responses; Did not pay attention (answered quickly or carelessly); Cannot remember; Worried about outcome of response; Guessed; Changed response; Other (specify:_____).

Data Entry — A trained data entry clerk entered all survey data from the pilot test into CSPro using a computer-generated copy of the questionnaire.

3.3. Data Analysis and Questionnaire Review

Data cleaning preceded data analyses as we uncovered discrepancies in the form of outliers, nonsensical results, and inconsistent responses. Some data cleaning required communication with, and follow up by, the in-country data collection firms. After the data files were deemed clean, we undertook data analysis guided by the MEASURE Evaluation OVC Survey Toolkit Data Analysis Guide (MEASURE Evaluation, 2014).

4. Results

4.1. Zambia

Cognitive Interview Results — Cognitive interviews yielded few findings. The vast majority of respondents expressed that all questions were understandable and clear, though some were clearly uncomfortable with the methodology and struggled to share their perceptions of questions rather than answering them. This may have affected the reliability and validity of findings. One respondent had difficulty with the following terms: "resourcefulness" and "coping strategies."

4.1.1. Household Variables[3]

Respondent Demographics — There were 21 head of household respondents (5 female, 16 male) ranging in age from 24 to 71 years (mean=48).[4] Age distribution data are presented in the table below.

Table 3.   Age Distribution of Head of Household Respondents

Age Range (years)	n
18-24	1
25-34	2
35-44	4
45-54	8
55+	6
All ages	21

Twenty respondents reported some schooling, twelve were fully literate and an additional three were partially literate (six could not read at all). Twenty respondents were able to answer a simple math question correctly (3+2=?).

Household Composition — Due to missing data, a snapshot of the sample household schedule was not generated.

Six respondents reported that a household member died in the year prior to survey. Of the deceased, one was under 5 years, two were 18-59 years, and three were over 60 years. Twelve respondents reported that the household gained a new member in the year prior to survey. Of these new members, five were under 5 years, four were 5-17 years, one was 18-59 years, and two were over 60 years. One household gained three members and one gained two.

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[3]   The Global OVC Survey Tools rely on the collection of household data from the primary caregiver and not the head of household. However, in Zambia, we interviewed both heads of household and primary caregivers, as this was prescribed by the study design. Data are presented for both sets of respondents where available.

[4]   The sample size (N) for all questions is 21, except where otherwise stated.

Household Access to Money — Respondents were asked how their households access money to meet important needs: for food, for a regular household expense such as transport, and for unexpected emergency expenses. Data are presented in Table 4.

Table 4. Household Access to Money

Source of Money (multiple responses possible)	Money Needed For:		
	Food	**Regular Household Expense**	**Unexpected Household Expense**
Current income	7	5	2
Cash	4	4	0
Loan from family or friend	5	9	5
Loan from savings group	3	2	1
Loan from microfinance	0	0	0
Loan from Kaloba	0	1	1
Sell food surplus	4	2	2
Sell food meant for consumption	1	2	3
Sell livestock	3	4	2
Sell poultry	3	4	0
Sell other asset	2	1	0
I would not be able to access this amount of money	1	1	1
Other (borrow money, look for piece work or labor work)	5	2	0
No response	0	0	10

For food, the sample households turned mainly to current income followed by a loan from family/friends and looking for other work. Under the category of revenue for transport or other regular expense, respondents identified loans from family or friends as the primary sources. Only half of the sample responded to the question on access to money to meet an emergency expense; most of those indicated that they would take a loan or sell an asset to get the money.

Perceived Financial Security — Heads of household were asked: "Compared to last year, do you feel that your HH is more or less financially secure?" Among the household heads who responded to this question (N=11), five reported feeling "less secure," four reported feeling "more secure," and two reported no change from last year. The high "no response" rate makes it difficult to conclude the true situation among pilot test respondents.

Assets — Respondents were asked whether their household had a number of assets. Respondents were asked whether they bought or received the asset in the last 12 months, and whether their household had to sell the asset in the last 12 months to pay for food, health care, education, or another household expense. Findings are presented in Table 5.

Table 5.   Asset Ownership

Asset	Number of HHs that Own Item	Bought or Received in Past 12 months	HH Sold Item to Pay for Money for Food, Health Care, Education or other HH Expense
Radio	8	3	0
TV	6	0	1
Mobile phone	12	0	0
Sewing machine	1	0	0
Plough	5	0	0
Grain grinder	0	0	0
Tractor	0	0	0
Vehicle	0	0	0
Hammer mill	0	0	0
Bicycle	12	0	0
Motorcycle or scooter	0	0	0
Animal-drawn cart	1	0	0
Traditional cattle	3	0	0
Dairy cattle	1	0	0
Beef cattle	0	0	0
Horses, donkeys or mules	0	0	0
Goats	10	1	2
Sheep	0	0	0
Pigs	1	0	1
Chickens	14	4	7
Other poultry	2	1	1
Other livestock	0	0	0

Most sampled households reported owning mobile phones and bicycles. Twelve households sold assets to pay for food, health care, education and other items. Figure 1 shows that 10 families sold assets for educational expenses, while 9 families sold assets for food and health care and 8 sold assets for some other expense.

Figure 1.   Assets sold for specific household needs.

Twenty respondents reported their households stocked staple goods in anticipation of insecure times.

In addition to the assets listed above, 20 respondents reported that at least one member of their household owned agricultural land. Of these, two reported that a household member had purchased, been given or inherited agricultural land in the year prior to survey. One respondent reported that the household was forced to sell some land in the year prior to survey to pay for shelter.

Expenditures — Respondents were asked to estimate recent household expenditures for food, health care, education and shelter, determine whether these expenses were higher or lower than the month before, and give a reason why they were higher or lower. Respondents reported spending between zero and 1 million Kwacha on food in the one month prior to the survey. Six respondents noted that their food expenses had increased in the previous month, eleven reported that they had decreased, and one reported they stayed the same (N=18). Reasons given for changes in increased expenditure include: change in household composition (n=3), reduced food stores (n=1), too much rain (n=1), and planting season so no harvest available to consume (n=1) (N=6). Among households that spent less on food, the primary reason was also change in household size (n=3), followed by food prices up (n=1) and special purchases for a holiday (n=1) (N=5).

Respondents reported spending between zero and 500,000 Kwacha on health care in the one month prior to survey. Eight respondents noted that their health care expenses had increased in the previous month, one reported that they had decreased, and seven reported that they stayed the same (N=16). Reasons given for increases in expenditure include: household member was sick (n=4), household member is pregnant/had baby (n=1), had to buy drugs (n=2), routine check-up occurred this month (n=1), more sickness in family (n=1), and referred to hospital which is far

(n=1) (N=8, multiple responses possible). Errors in reports for why expenditure decreased preclude further analysis.

Respondents reported spending between zero and 3.5 million Kwacha on health care in the one month prior to survey. Thirteen respondents noted that their education expenses had increased in the previous month, five reported that they had decreased, and two reported that they stayed the same (N=20). Reasons given for increases in expenditure include: school fees increased (n=2), school requirements added costs, e.g., books and uniforms (n=3), PTA costs or transport costs increased (n=1), number of school-going household members increased (n=5), a daughter retook a test (n=1), and household was required to pay for school building expenses (n=1). Reasons given for decreases in expenditure include: school fees decreased (n=1) and student changed schools (n=1) (N=2).

Respondents reported spending between zero and 5 million Kwacha on shelter in the 12 months prior to survey. Ten respondents noted that their shelter expenses had increased in the previous 12 months, one reported that they had decreased, and eight reported that they stayed the same (N=19). Reasons given for changes increases in expenditure include: house was damaged/needed improvement (n=8) and expanded house (n=1) (N=9). The reason given for a decrease in expenditure was: no improvements needed.

Household Food Security — We applied the Household Dietary Diversity Scale developed under the USAID-funded FANTA project. The possible range for overall food diversity varies from 0 to 12 (FANTA, 2006). Food diversity scores among sampled households ranged from 1 to 10, with a median value of 4 and a mean value of 4.7.

Respondents were also asked whether, in the past four weeks, there was ever no food to eat of any kind because of lack of resources to get food. Three households did experience food insecurity due to lack of resources (N=11). Data for subsequent food security questions are missing and therefore the household hunger index is not calculated.

External Support to Household — Household heads were asked about the types of support the household had received in the year prior to survey. Nine households received some type of monetary support in the past year (two from government, three from friends/family, and four from other sources), with values ranging from 50,000 to 600,000 kwacha. Informal cash transfers from family and friends were not recorded. Table 6 presents data on the other types of external support received by households in the year prior to survey.

Household Participation in Community Activities — Heads of household were asked whether anyone in their household participated in various activities. Sixteen respondents reported that a household member participated in a savings and internal lending community (SILC)[5], eleven reported that a household member participated in another type of community savings group,

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[5] This is not surprising since the sampling frame for this pilot test was households that participated in SILC.

eleven reported that a household member participated in microfinance, and one reported that a household member participated in vocational training.

Table 6.   External Support Received by Households

Services	Yes	No	No Response
Nutritional advice in caring for your children	3	14	4
Free food	3	14	4
Vitamin A supplementation	2	14	5
Livelihood training/income-generation training	7	10	4
Life skills training	6	10	5
Psychosocial support from a home visitor or social worker	4	12	5
Free school supplies or a school uniform	4	12	5
Birth registration support	-	-	-
Malaria prevention education	3	11	7
Mosquito net	3	9	9

Gender Roles and Decision Making Power — Respondents were asked who usually decides how the money they earn is spent. Among the five female respondents, four indicated that either they control their cash earnings or that decision making is done jointly, and one respondent indicated that her partner controlled her cash earnings. Findings are presented by age group in Table 7.

Table 7.   Control over Women's Cash Earnings (Women Only)

Background characteristic	Respondent	Partner Only	Respondent and Partner Jointly	Total
Age				
18-24	-	1	-	1
25-29	-	-	-	-
30-34	-	-	-	-
35-39	-	-	-	-
40-44	-	-	-	-
45-49	-	-	1	1
50+	2	-	1	3
Total	2	1	2	5

Among male respondents, two reported that they made decisions about the money they earn and 12 reported that decision making was done jointly between them and their partner. Findings are presented by age group in Table 8.

Table 8.   Control over Men's Cash Earnings (Men Only)

Background Characteristic	Respondent	Partner Only	Respondent and Partner Jointly	Total
Age				
18-24	-	-	-	-
25-29	-	-	-	-
30-34	-	-	2	2
35-39	1	-	1	2
40-44	1	-	1	2
45-49	-	-	3	3
50+	-	-	5	5
Total	2	-	12	14

Women were asked who usually makes decisions about health care, major household purchases, and visits to her relatives. As there were only five female respondents, data are not presented.[6]

All respondents were asked who should have the greater say in a number of household and family decisions. Wives appear to have the greatest autonomy for decisions related to visits to her family or relatives, regardless of which partner responds to the question. Daily household purchasing needs are most likely to be joint decisions. Data are presented in Table 9 by sex.

Table 9.   Perceptions about Who Holds Decision-Making Power

Decision	Wife	Wife and Husband Jointly	Husband	Total
Women Only				
Major household purchases	1	1	3	5
Purchases of daily household needs	-	4	1	5
Visits to wife's family or relatives	4	-	1	5
What to do with the money wife earns	2	-	3	5
How many children to have	2	-	3	5
Men Only				
Major household purchases	6	1	7	14
Purchases of daily household needs	4	9	1	14
Visits to wife's family or relatives	9	2	3	14
What to do with the money wife earns	3	6	5	14
How many children to have	3	2	9	14

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[6] The same questions were asked to female caregivers and data are presented in the next section.

The small sample size makes it difficult to draw conclusions. However, it appears that most men in the sample felt that making purchasing decisions for daily household needs was either up to the female or a joint decision, visits to the wife's family should be decided by the wife, but determinations of how many children to have rested with the husband.

Respondents were asked whether it is acceptable for a husband to hit or beat his wife. Two of the four female respondents reported that wife beating was acceptable in all hypothetical circumstances. Few men reported that wife beating was acceptable. Data are presented by sex in Table 10.

Table 10.   Attitudes on Wife Beating

Husband Is Justified in Hitting or Beating His Wife if She:					
	Burns the Food	**Argues with Him**	**Goes Out without Telling Him**	**Neglects the Children**	**Refuses to Have Sexual Intercourse with Him**
Women					
Yes	2	2	2	2	2
No	2	2	2	2	2
No Response	1	1	1	1	1
Men					
Yes	3	2	2	1	-
No	11	12	12	13	12
No Response	-	-	-	-	2

4.1.2. Primary Caregiver

Respondent Demographics — Twenty primary caregivers responded to the questionnaire. All of the sampled caregivers were female ranging in age from 24 to 54 years (see Table 11).

Table 11.   Age Distribution of Caregiver Respondents

Age Range (Years)	n
18-24	1
25-34	3
35-44	8
45-54	0
55+	8
All ages	20

Fifteen caregivers were married, four widowed, and one single. All respondents reported some schooling. The median value for highest grade completed is Grade 6 (range: Grade 2 to 10). None of the caregivers under 30 years reported any secondary schooling. Thirteen respondents were fully literate, and an additional three were partially literate. All but one respondents was able to demonstrate basic numeracy by answering a simple math question (2+3=?).

All respondents reported working in the 12 months prior to survey (N=20), and 18 reported working in the three months prior to survey (N=19). Eight respondents reported working regularly throughout the year, five reported working seasonally, and seven reported working only once in a while. Ten respondents reported being paid in cash, nine reported being paid in cash and kind, and one reported not being paid. The type of employment reported was mainly farming or agriculture (n=15); others sold food at the market (n=5) and participated in other work (n=2) (multiple responses possible).

Caregiver Burden — Caregivers reported care responsibilities for between one and seven children in total (N=18). Table 12 shows the number of children by age group in the sample households. This also provides information on the childcare burden for each caregiver. Note that the age was not given for a few children; those children are excluded from this distribution. The "Total*" column on the right shows the number of children per caregiver. The "Total**" row at the bottom shows the total number of children within each age group.

Community Perceptions — Respondents reported participating in: women's groups or parents group (n=2), savings and internal lending communities (n=20), other community savings groups (n=1), and other groups (n=2; not specified) (N=20, multiple responses possible). One respondent reported not participating in any groups.

Respondents were asked whether they agreed or disagreed with two statements about their community. Data are presented in Table 13.

The majority of respondents "strongly agree" or "agree" that their community has honest people willing to provide assistance when needed.

Table 12. Number of Children under Care, by Age Group

Caregiver Respondent	Age Group				Total Number of Children under Care*
	Under 5	6 to 10	11 to 15	16 to 17	
A	1	2	1	1	5
B	1	2	2	1	6
C	1	3	0	0	4
D	0	0	1	0	1
E	2	3	1	1	7
F	0	0	3	0	3
G	0	0	2	1	3
H	2	1	2	1	6
I	2	1	0	0	3
J	3	2	2	0	7
K	1	0	0	1	2
L	2	3	1	1	7
M	2	1	3	0	6
N	1	2	3	0	6
O	1	1	2	1	5
P	1	1	2	0	4
Q	1	1	0	1	3
R	2	2	1	1	6
Total**	23	25	26	10	84

  * Number of children per caregiver.
  ** Number of children within each age grojup.

Table 13. Caregivers' Perceptions about Their Communities

Statement	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Most people in this community are basically honest and can be trusted	8	6	2	1	3
Most people in this community will help you if you need it	8	5	1	5	1

Social Support — Respondents were asked whether they had someone to rely on for good times and challenges. Data, presented in Table 14, indicate high social support among respondents.

Table 14.   Social Support

Statement	Yes	No
Do you have someone in your life that you can confide in or talk to about yourself or your problems?	20	0
Do you have someone in your life who can take you to the doctor if needed?	19	1
Do you have someone in your life that shows you love and affection?	19	1
Do you have someone in your life that you can have a good time with?	20	0

Self-Esteem — Respondents were asked whether they agreed or disagreed with two statements about self-esteem. Data, presented in Table 15, indicate good self-esteem among respondents.

Table 15.   Self-esteem

Statement	Strongly Agree	Agree	Neither Agree nor Ddisagree	Disagree	Strongly Disagree
I feel that I have a number of good qualities	12	5	1	0	2
I am able to do things as well as most other people	8	10	0	2	0

Hope — Respondents were asked whether they agreed or disagreed with two statements about hope. Data, presented in Table 16, indicate high degrees of hope among respondents.

Table 16.   Hope

Statement	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
You are hopeful about your future	12	6	0	2	0
You are hopeful about your children's future	11	5	0	3	1

General Self-efficacy — Respondents were asked whether they agreed or disagreed with statements from the General Self-Efficacy Scale. Data, presented in Table 17, show that the majority of sample caregivers feel that they have strong coping skills. There are some respondents, however, who indicate that they are unable to cope.

Table 17.   General Self-efficacy

Statement	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
I can always manage to solve difficult problems if I try hard enough	5	9	1	2	3
If someone opposes me, I can find the means and ways to get what I want	3	14	1	0	2
It is easy for me to stick to my aims and accomplish my goals	5	10	0	5	0
I am confident that I could deal efficiently with unexpected events	2	11	0	6	1
Thanks to my resourcefulness, I know how to handle unforeseen situations	4	11	0	4	1
I can solve most problems if I invest the necessary effort	4	13	1	2	0
I can remain calm when facing difficulties because I can rely on my coping abilities	7	12	1	0	0
When I am confronted with a problem, I can usually find several solutions	5	13	0	1	1
If I am in trouble, I can usually think of a solution	5	12	0	2	1
I can usually handle whatever comes my way	1	9	2	8	0

The general self-efficacy scale is calculated by summing the variable values shown in the table above. The total possible score for each individual is 40 (4 x 10 questions). The higher the value, the higher the self-efficacy demonstrated by the respondent. Among this sample, general self-efficacy ranged from 12 to 39, with a mean of 24.4 and a standard deviation of 6.28.

Caregiver Self-efficacy — Respondents were asked whether they agreed or disagreed with various statements about caregiving. Data are presented in Table 18.

Table 18. Caregiver Self-efficacy

Statement	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
I enjoy spending time with my children	16	4	0	0	0
Caring for my children sometimes takes more time and energy than I have to give	5	7	0	6	2
I can meet the needs of the children in my care (N=18)	4	5	1	8	0

Illness and Health-seeking Behavior — Fourteen respondents reported going more than one day in the past one month where they were too sick or too tired to participate in daily activities. Of these, two reported that they are too sick or too tired for daily activities at least once a week, and 12 reported that this happens once in a while.

Caregivers were asked whether they sought health care for their most serious illness in the last six months. Thirteen responded that they did seek health care, three reported that they did not seek health care, and four reported that they were not sick in the previous six months.

Gender Attitudes and Decision-Making Power — Respondents were asked who usually decides how the money they earn is spent. Findings are presented by age group in Table 19.

Table 19.   Control over Women's Cash Earnings, by Age Group

Age Group	Respondent	Partner Only	Respondent and Partner Jointly	Total
18-24	-	1	-	1
25-29	-	-	-	-
30-34	1	1	1	3
35-39	1	-	3	4
40-44	1	1	1	3
45-49	-	-	2	2
50+	2	3	1	6
Total	5	6	8	19

Generally, decisions on how to spend money earned by the caregiver are made mostly jointly (n=8).

Respondents were asked who usually makes decisions about health care, major household purchases, and visits to her relatives. Decisions on health care for the caregiver are made mostly by the respondent (n=10), followed by the respondent with partner jointly (n=7). Data are presented by age group in Table 20.

Table 20.   Decision Making about Seeking Health Care, by Age Group

Age Group	Respondent	Partner Only	Respondent and Partner Jointly	Total
18-24	-	-	1	1
25-29	-	-	-	-
30-34	2	-	1	3
35-39	3	-	2	5
40-44	2	1	-	3
45-49	1	1	-	2
50+	2	1	3	6
Total	10	3	7	20

Major household purchase decisions are made jointly by the couple (n=9), or the respondent (n=7). Data are presented by age group in Table 21.

Table 21. Decision Making about Large Household Purchases

Age Ggroup	Respondent	Partner Only	Respondent and Partner Jointly	Total
18-24	-	-	1	1
25-29	-	-	-	-
30-34	1	-	2	3
35-39	2	1	2	5
40-44	1	1	1	3
45-49	-	-	2	2
50+	3	2	1	6
Total	7	4	9	20

Daily household purchasing decision are made primarily by the caregiver (n=17). Older respondents reported more involvement of their partner (n=2). Data are presented by age group in Table 22.

Table 22.   Decision Making about Daily Household Purchases

Age Group	Respondent	Partner Only	Respondent and Partner Jointly	Total
18-24	1	-	-	1
25-29	-	-	-	-
30-34	3	-	-	3
35-39	5	-	-	5
40-44	2	1	-	3
45-49	1	-	1	2
50+	5	-	1	6
Total	17	1	2	20

Respondents reported that decisions on visiting the wife's family were made primarily by their partner (which is different from how male heads of households responded). Data are presented by age group in Table 23.

Table 23.   Decision Making about Visiting the Wife's Relatives

Age group	Respondent	Partner only	Respondent and partner jointly	Total
18-24	-	-	1	1
25-29	-	-	-	-
30-34	1	1	1	3
35-39	1	4	-	5
40-44	1	2	-	3
45-49	-	1	1	2
50+	1	4	1	6
Total	4	12	4	20

Respondents were asked who should have the greater say in a number of household and family decisions. Data are presented in Table 24.

Table 24. Perceptions about Who Holds Decision-Making Power

Decision	Husband	Wife	Both Equally	Total
Major household purchases	11	2	7	20
Purchases of daily household needs	0	15	4	19
Visits to wife's family or relatives	15	1	3	19
What to do with the money wife earns	6	6	7	19
How many children to have	7	4	8	19

Husbands were designated as primary decision makers for large household purchases (n=11) and visits to the wife's family or relatives (n=15). The wife was identified as the decision maker for small daily purchases (n=15), and there was variation in responses regarding who holds the decision making power for how many children to have and how to spend a wife's income.

Respondents were asked whether it is acceptable for a husband to hit or beat his wife. Data are presented by sex in Table 25.

Table 25. Attitudes on Wife Beating

Husband is Justified in Hitting or Beating his Wife if She:					
	Burns the Food	Argues with Him	Goes Out without Telling Him	Neglects the Children	Refuses to Have Sexual Intercourse with Him
Yes	3	6	7	7	6
No	17	14	13	13	14

Generally, wife beating is widely acceptable among the sampled caregivers.

4.1.3. Children Aged 0-9 Years

Respondent Demographics — The questionnaire for children aged 0-9 years was administered to caregivers of 26 different children. Some of these children lived in the same household, but due to the way in which data were entered, we were not able to separate children by household. In no cases were all children in the household surveyed.

The age and sex distribution for 0-9 survey respondents is shown in Table 26.

Table 26.   Respondent Age, by Sex

Age (years)	Female	Male	Total
< 5	8	7	15
5-9	6	5	11
Total	14	12	26

Health — Caregivers were asked how they perceived the child's overall health. Twelve reported that the child's health was excellent, four reported that it was very good, five reported that it was good, four reported that it was fair, and one reported that it was poor.

Even though the overall health for children in the sample is good, 12 experienced some type of sickness in the two weeks prior to survey, which limited participation in daily activities.

Caregivers were asked about the vaccination status of children under 5 years. Data are presented in Table 27.

Table 27.   Vaccinations among Children under 5 Years (N=15)

	Received, Confirmed with Card	Not Received	Received, Unconfirmed	No Response
BCG	5	-	5	5
OPV 0	6	-	4	5
OPV 1	6	-	4	5
OPV 2	6	-	4	5
OPV 3	6	1	3	5
DPT 1	6	-	1	8
DPT 2	6	-	4	5
DPT 3	6	-	4	5
Measles	5	1	4	5

Among the 10 respondents to this question, about half were able to confirm vaccinations with a vaccination card. The other half reported vaccinations, but were not able to produce a card.

Caregivers were asked whether children had experienced diarrhea in the two weeks prior to survey. Two children had diarrhea, and treatment was sought for both of them (at a private health center [n=1] and through a community-based agent [n=1]). One of these two children received "fluid from a special packet" to treat the diarrhea.

Caregivers were asked whether children had experienced fever in the two weeks prior to survey. Fourteen children had experienced fever, and all received drugs. Drugs were obtained from a public health center (n=10), a community-based agent (n=1), a shop (n=2), and another source (n=1, not specified). Interestingly, only 11 children reportedly received "treatment" for their fever (10 of which were seen at the public health post), but when asked whether they received drugs, all caregivers responded that the children had in fact received drugs from some source. Receiving treatment was conceptualized as "attending clinic."

Sleeping under a mosquito net is especially critical for children under age 5 to mitigate malaria transmission. Caregivers were asked whether the child slept under a mosquito net the night prior to survey; data are presented in Table 28, by age group.

Table 28. Slept under a Mosquito Net Last Night

		Age of Child	
		5-9 Years	**0-4 Years**
Did child sleep under a mosquito net last night?	YES	7	6
	NO	4	9
Total		11	15

Half of children under 5 years reportedly slept under a mosquito net the night prior to survey; more than half of children aged 5-9 years reportedly slept under a mosquito net the night prior to survey.

Caregivers were asked whether the child had ever had an HIV test. Six children reportedly had ever been tested for HIV and in all six cases, caregivers reported knowing the child's status (N=25). The age distribution for children who were tested for HIV is as follows: 1 year (n=2), 2 years (n=3), 9 years (n=1).

Psychosocial Well-being — Missing data precluded analysis for this section.

Food Security — As noted earlier, the possible range for overall food diversity is 0 to 12 (FANTA, 2006). Caregivers were asked to report on the dietary diversity of children aged 2 to 9 years. Among children in this sample, the dietary diversity range was 2 to 5 (N=9). The median dietary diversity score was 4 and the mean value was 3.7. Data are charted in Figure 2.
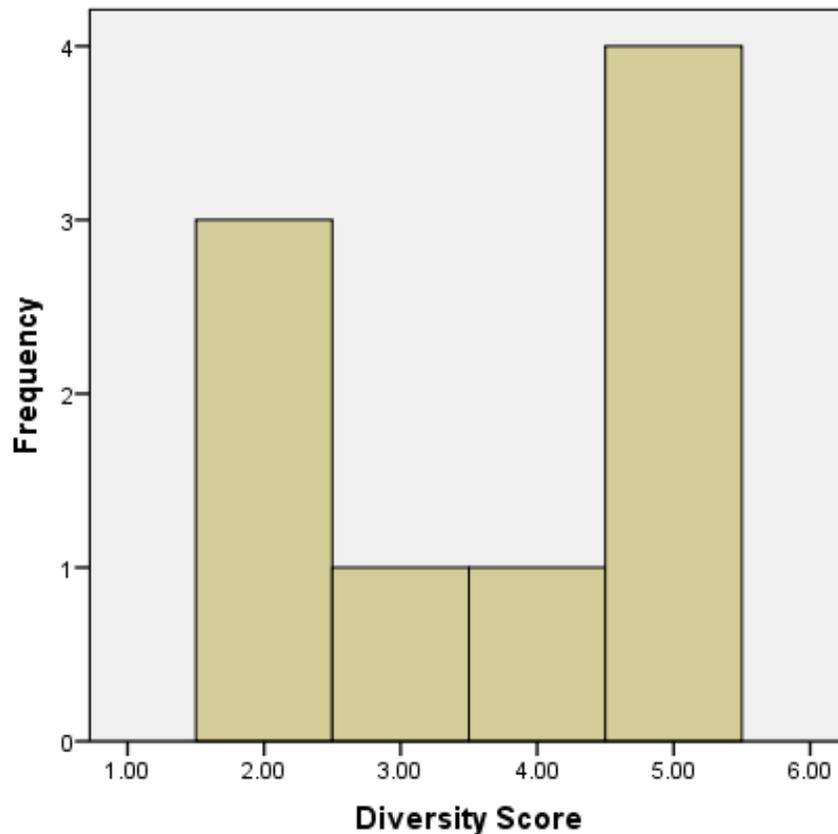
Figure 2.   Dietary diversity scores (N = 9 Children).

Caregivers were asked about children's food consumption. Three children reportedly had to skip a meal in the last (1 week, 2 weeks, 7 days, 30 days, and 1 month) because there was not enough food to eat (N=11). Three children reportedly had to go to sleep hungry/go a whole day and night without eating in the last (1 week, 2 weeks, 7 days, 30 days, and 1 month) because there was not enough food to eat (N=13). Food insecurity was reported for the same three children across all scenarios. Reported food insecurity did not change with the recall period.

Education — Five children aged 5 years and over were reportedly attending school at the time of survey (N=9); we have no information for five children.

Data show that all five children enrolled progressed in grades from the previous school year to the current one. However, all five children reported missing school days in the previous school week. Reasons cited were that school was too far away (n=3), and the child needed to take care of sick family members (n=2).

Among the four children not enrolled in school, three dropped out less than one year prior to survey, and one dropped out more than one year ago. Reasons cited for non-enrollment/drop-out

included no money for school materials or transport (n=1), school is too far away (n=3), and child does not like school (n=1) (N=4, multiple responses possible).

Work — Among children in the sample, none worked for money during the past six months.

External Support — Caregivers were asked whether the child received a number of services in the six months prior to survey. Four children received psychosocial counseling, six received a home visit from a community care worker, one received health care from a health professional, four had school fees paid by an organization, twelve received free school supplies or a school uniform, five received a Vitamin A supplement, and two received supplemental feeding.

Anthropometric Measurements — Incomplete data precluded analysis of mid-upper arm circumference and body mass index.

4.1.4. Children aged 10-17 Years

Respondent Demographics — Thirteen children aged 10-17 responded to the survey, eight girls and five boys. Table 29 presents the ages of the children in the sample.

Table 29.   Respondent Age, by Sex

Age Group (years)	Female	Male	Total
10-14	3	4	7
15-17	5	1	6
Total	8	5	13

Diary — Questions were asked primarily to establish rapport with the child respondent and to improve the accuracy of responses to similar questions within the rest of the questionnaire. For this reason, data were not analyzed.

Education — Eight children reported being in school at the time of survey, and two additional children reported usually going to school (N=12). Among children who reported currently attending school, all progressed in grade from the previous school year to the current school year.

Among children not currently in school, three have attended school at some point and all had dropped out within the last year.

Chores — Thirteen children reported conducting some household or farm chores. Of these, 10 reported fetching water, 9 reported preparing food, and 1 reported other chores (not specified) (multiple responses possible). Hours taken up by chores every day varied from less than 1 hour (n=4), to 1-2 hours (n=4), to 3-4 hours per day (n=5).

Work — Ten children reported participating in other work. Three of these children reported hawking goods and seven others did not specify the type of work. Two children reported working every day, three children reported working several times per week, one child reported working once a week, three children reported working once in a while, and one child did not respond. Six children reported receiving money for the work that they do (N=10).

To ensure we captured participation in work, we asked all children in the sample what (else) they do to get money. Four reported that they do not do anything, one reported begging, one reported weeding, and seven reported doing something else (not specified). We then asked all children (whether they reported work or not) what they did with any money they received. Children who received money reported buying things for themselves (n=8), using it to pay for school expenses for others (n=1), using it to pay my school expenses (n=1), using it to pay for food for others (n=1), using it to buy food for themselves (n=1), using it to buy food for others (n=1), or using it for other things (n=2) (N=12, multiple responses possible).

Food Security — The FANTA dietary diversity scale was applied to all children. As noted earlier, the range in possible overall dietary diversity scores is 0 to 12 (FANTA, 2006). The range of scores among sampled children was 2 to 9; the median value was 4 and the mean value was 5. Data are presented in Figure 3.
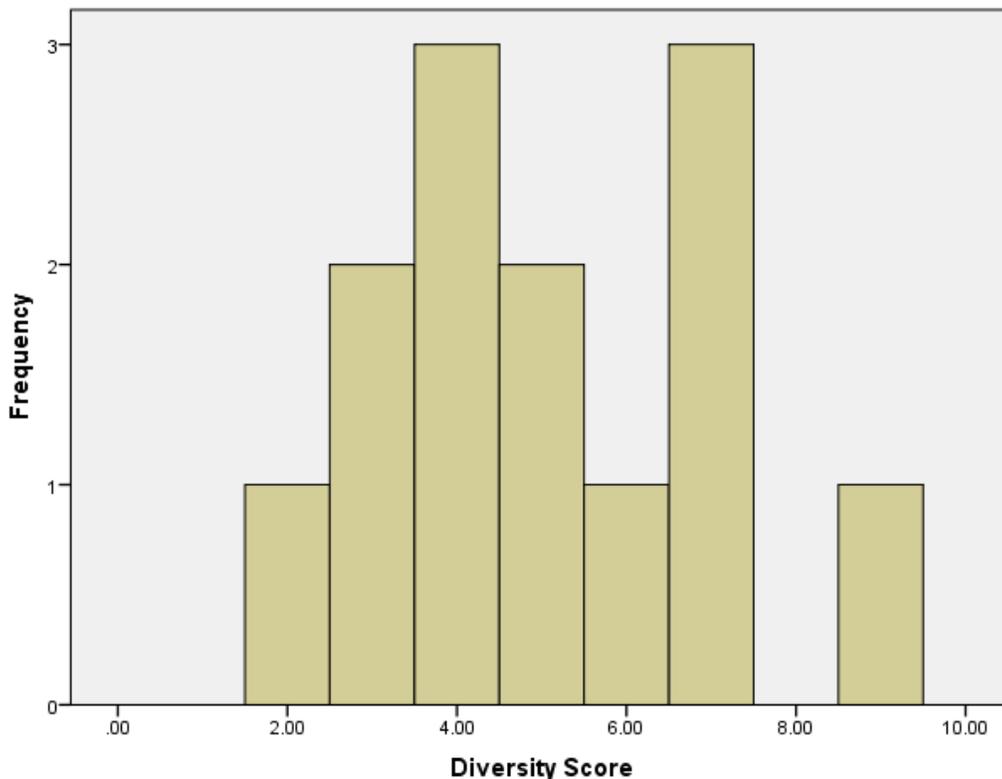
Figure 3.   Dietary diversity scores (N = 13)

We asked children about their food consumption. Depending on the recall period, between two and three children reported having to skip a meal/go to bed hungry because there was not enough food in the household; data are presented in Table 30.

Table 30.   Reported Food Insecurity

Recall period	Skipped Meals		Went to Bed Hungry	
	Yes	**No**	**Yes**	**No**
One week	2	11	2	11
7 days	2	11	2	11
2 weeks	3	10	3	10
30 days[7]	2	11	2	11
1 month	3	10	3	9

All three children who reported skipping meals reported that they did this often (more than 10 times in the past four weeks). Two children who reported going to sleep hungry reported that this happened sometimes (3-10 times in past four weeks) (N=2).

None of the children reported having to go a whole day and night without eating because there was no food (in any recall period).

Health — All children reported their health as either excellent (n=8) or very good (n=5). Three children reported being too sick at some point in the last two weeks to participate in daily activities. Three children reported sleeping under a mosquito net the night prior to survey. Two children reported a previous HIV test.

Psychosocial Well-being — Children were asked how often they feel happy or sad. Data are presented in Table 31.

Table 31.   Outlook

Statement	All of the Time	Almost All of the Time	Some of the Time	Rarely	Don't Know
Sometimes we feel happy and sometimes we feel sad. Would you say that you feel happy…?	5	5	2	1	-
Sometimes we feel worried. Would you say that you feel worried…?	-	5	6	1	1

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[7] This recall period was poorly understood by at least one respondent who reported food insecurity in the last one week, 7 days, two weeks and one month, but not in the last 30 days.

Data are somewhat contradictory, with most children reporting feeling happy, but also worried.

Children were asked whether, if they felt worried, sad, or upset about something, if they could get someone to help them? Three reported that they could always get help, two reported that they could almost always get help, two reported that they could sometimes get help, three reported that they could rarely get help, and two reported that they could never get help. Among those who reported being able to access help, four reported that they would go to their mother and/or father, three reported that they would go to their sister and/or brother, two reported that they would go to a friend, and one reported that they would go to another relative (N=13).

To measure self-efficacy, children were asked whether they agreed or disagreed with the statement: If I try hard to do something, I can succeed. Five children strongly agreed, six agreed, one disagreed, and one strongly disagreed.

To measure hopefulness, children were asked whether they agreed or disagreed with the statement: I am hopeful about my future. Six children strongly agreed, five agreed, and two strongly disagreed. We also applied an adapted version of the full Hope Scale (Snyder, 1997) to all children. Responses are presented in Table 32.[8]

Table 32.   Hope Scale

Statement	Strongly Agree	Agree	Disagree	Strongly Disagree
I think I am doing pretty well.	3	5	5	-
I can think of many ways to get the things in life that are most important to me.	2	5	3	3
I am doing just as well as other kids my age.	6	4	-	3
When I have a problem, I can come up with lots of ways to solve it.	2	3	5	3
The things I have done in the past will help me in my future.	2	7	2	2
Even when others want to quit, I know that I can find ways to solve the problem.	4	6	1	2

Children responded to the full Strengths and Difficulties Questionnaire (SDQ). Mean scores across the various domains measured by the SDQ are presented in Table 33, with normal ranges; the scoring guide is shown in Appendix 3.

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[8] Note that our adaption of this scale precluded us from calculating the Hope Scale score.

Table 33.   Strengths and Difficulties Questionnaire (N=13)

Scale	Mean (among Sample)	Normal Range
Emotional	3.5	0-5
ProSocial	9.1	6-10
Conduct	2.9	0-3
HyperActivity	4.3	0-5
Peer Problems	5.6	0-3

Children sampled generally fall in the normal range across items, except for peer problems, where sampled children fall outside of the normal range, indicating challenges.

External Support — Children were asked what services they had received in the six months prior to survey. Data are presented in Table 34. As with children aged 0-9 years, the services received/utilized by the most children aged 10-17 years were free school supplies or uniforms. Additionally, almost half of sample children aged 10-17 years received free health care as well as a mosquito net. Half of children aged 13-17 years also received information on HIV and STI prevention.

Table 34. Services or Items Received in the 6 Months Prior to Survey

Services or Items Received	Yes	No
Health care from a health professional	6	7
Home visit from a community worker or social worker	2	11
Free school supplies or a school uniform	7	6
Mosquito net	5	8
Information on how to prevent HIV and other sexually transmitted infections (children aged 13-17 only)	5	4
Information on birth spacing (children aged 13-17 only)	2	7
Livelihood training (children aged 13-17 only)	3	6

Anthropometric Measurements — Incomplete data precluded analysis of mid-upper arm circumference and body mass index.

4.1.5.   Questionnaire Revisions after Piloting

Household & Caregiver Questionnaire — Pilot testing resulted in some changes to the Household and Caregiver Questionnaire. Note that not all questions included in the final questionnaire were pilot tested. Changes are described here and summarized in Appendix 2.

We piloted three "access to money" questions:

- If you needed money to buy food today, how would you pay?
- If you needed money to pay for a regular household expense today, such as transportation, how would you pay?
- If you needed money to pay for an unexpected household emergency today, such as a house repair, or urgent medical treatment, how would you pay?

Response options were not read and respondents were given the option to note two primary ways of accessing money. After the pilot test, we changed the wording of these questions to be more concrete, and we changed the content of the second question from a "regular household expense" to a "school-related expense" to ensure a child focus:

- Thinking about the last time you bought any food for eating or cooking, how did you pay?
- Thinking about the last time you had to pay for any school-related expenses, how did you pay?
- Thinking about the last time you had to pay for an unexpected household expense, such as a house repair, or urgent medical treatment, how did you pay?

We also revised response categories, noted that response categories should be read out loud, and that respondents could record only one primary way of accessing money.

We also piloted a number of expenditure questions on food, health care, education, and home improvements. We asked whether respondents spent more or less on these items in the last month/12 months compared to the month/12 months before. Respondents were then asked why they spent more or less. The format of this set of questions led to significant data quality issues as the response options for why respondents spent more or less were grouped together. After piloting, we separated out these questions and added skip patterns for respondents noting "more" or "less" expenditure.

We also piloted an extended asset schedule, requesting respondents to report whether any member of their household owned an item (DHS list of assets) or any agricultural land, whether any member of their household purchased or received the item in the last 12 months (and how much agricultural land was purchased/received in the last 12 months), whether their household had to sell the item (any agricultural land) because they needed money to pay for food, health care, education, or another household expense in the last 12 months, and if yes, what the money was used for. Asset ownership across all items was very low, and therefore the number of responses to follow on questions was too low to ascertain the utility of these questions. These questions are not included in the final questionnaire but we are continuing to pilot test them in larger surveys.

We also piloted the question: *Does your household keep some assets, such as livestock or poultry, or maize meal, to sell in hard times?* There was no variability in responses to this question (all respondents answered "yes") and thus this question was not included in the final questionnaire.

Pilot testing was also a way for us to "try out" different recall periods to determine the most appropriate recall periods for the final questionnaire. For example, we tested two different timeframes for the question about recent work (*In the last "X" months, have you done any of these things or any other work?*). The DHS uses a 3-month timeline for measuring recent work, and we asked this question with both a 3-month and 12-month timeline. There were few differences in responses; the final questionnaire reflects the DHS wording (3 months). We also piloted five different recall periods for the food insecurity questions measured by the FANTA Household Hunger Scale (FANTA, 2006). The original scale uses a recall period of 4 weeks. We also tested 1 week, 7 days, 2 weeks, and 1 month. There was little variability in responses. The final questionnaire reflects the original wording of the scale (a 4-week recall period).

Finally, we pilot-tested a number of questions and scales related to psychosocial well-being including two social capital questions, two hope questions, two self-esteem questions, the general self-efficacy scale and one additional self-efficacy question, and three parental self-efficacy questions. Due to issues of validity, reliability, variability, scale length, and questions over the attribution of outcomes to PEPFAR interventions, none of these questions were included in the final questionnaire. The final questionnaire instead includes four questions on social support and a different question on parental self-efficacy. For survey users wishing to measure other concepts (e.g., self-esteem, hope), we share our learning on the utility of the questions and scales piloted in our Psychosocial Well-being Measurement Supplement, soon to be available on the MEASURE Evaluation website.

Questionnaire for Children aged 0-9 Years — Pilot testing resulted in few changes to the Questionnaire for Children aged 0-9 Years. Note that not all questions included in the final questionnaire were pilot tested. Changes are described here and summarized in Appendix 2.

We included DHS questions on childhood vaccinations but pilot tested what we hoped would be a simplified data capture format. This format was not suitable and the final questionnaire reflects the DHS format.

We pilot tested the strengths and difficulties questionnaire. Due to concerns over the length of this scale (25 questions), poor sensitivity to change over time, and questions over the attribution of outcomes to PEPFAR interventions, this scale was not included in the final tool. As noted above, we share more learning about using this scale in our Psychosocial Well-being Measurement Supplement, available on the MEASURE Evaluation website.

As described above, we pilot-tested various recall periods for the food consumption questions: 1 week, 7 days, 2 weeks, 4 weeks, and 1 month. As with the Caregiver Questionnaire, the different recall periods yielded little variability in responses and thus the final questionnaire reflects the original wording of the FANTA Household Hunger Scale (adapted for use among children) (Coates, Swindale, and Bilinsky, 2007).

Capturing anthropometric measurements proved to be more challenging than expected; we found significant errors in the ways data were transcribed. We changed the format for transcribing data on the questionnaire to improve clarity.

Questionnaire for Children Aged 10-17 Years — Pilot testing resulted in some changes to the Questionnaire for Children aged 10-17 Years. Note that not all questions included in the final questionnaire were pilot tested. Changes are described here and summarized in Appendix 2.

As a result of piloting, we revised questions on current school enrollment to improve clarity. Originally we obtained school enrollment information through three sources: the diary, response to whether the child attended school on the last school day/yesterday, and a response to whether the child usually goes to school. In piloting, responses to these three questions were conflicting and skip patterns were not followed well. We added one question on school enrollment, *Are you enrolled in school?,* and removed the two questions asking whether the child attended school on the last school day/yesterday and whether they usually attended school. We also added a question on missed school days: *During the last school week, did you miss any school days for any reason?*

As described above, we pilot-tested various recall periods for the food consumption questions: 1 week, 7 days, 2 weeks, 4 weeks and 1 month. As with the other questionnaires, the different recall periods yielded little variability in responses, and thus the final questionnaire reflects the original wording of the FANTA Household Hunger Scale (adapted for use among children) (Coates, Swindale, and Bilinsky, 2007).

We pilot-tested a number of questions and scales related to a child's psychosocial well-being, which were ultimately not included in the final questionnaire due to limited variability of responses, poor understanding, length of scales, and unclear data use/attribution of outcomes to PEPFAR. These questions included:

- Would you say that you feel happy (all of the time, almost all of the time, some of the time, rarely, or almost never)?
- Would you say that you feel worried (all of the time, almost all of the time, some of the time, rarely, or almost never)?
- If you feel worried, sad or upset about something, can you get someone to help you? Would you say you can get help (all of the time, almost all of the time, some of the time, rarely, or almost never)?
- To whom would you go to for help?
- An adaption of the Hope Scale (Snyder, 1997)
- An additional hope question: I feel hopeful about my future. Do you (strongly agree, agree, disagree, or strongly disagree)?
- A general self-efficacy question: If I try hard to do something, I can succeed. Do you (strongly agree, agree, disagree, or strongly disagree)?
- The Strengths and Difficulties Questionnaire

Again, please see our Psychosocial Well-being Measurement Supplement, soon to be available on the MEASURE Evaluation website, for more information about our learning around using these questions and scales.

Finally, as in the Questionnaire for Children aged 0-9 Years, we changed the format for transcribing anthropometric data on the questionnaire to improve clarity.

4.2. Nigeria

Cognitive Interviews — Cognitive interviews were conducted in Nigeria prior to the household pre-test to determine whether respondents understood the questions and were able to produce expected responses. Implementing the cognitive interviews was challenging methodologically for both the data collectors, who were unfamiliar with this new methodology, and the respondents. Overall, both caregivers and children were able to articulate what each question was asking. However, some respondents grew frustrated with the repetitive probing, characteristic of cognitive interviews. Many people misunderstood the intention of asking what they were thinking and responded with unrelated personal thoughts. Few were able to provide nuanced responses concerning what others might find unclear and whether response categories should be different.

We used results to 1) validate the translations; 2) refine the response categories; 3) better understand respondents' understanding of recall periods; and 4) assess respondents' understanding of certain concepts.

In relation to the validation of the translation, the translations of specific terms related to "school enrollment," "being too sick to participate in daily activities," and "leaving a child alone with no adult present for more than one hour" were adapted to more accurately reflect the intent of the question.

For the question on access to money for an unexpected household expense, we added a response category as multiple respondents answered that they received gifts from family members or friends. Some rural respondents had difficulty with the four-level agree/disagree Likert response categories for the Abler Hope Scale. They were unable to distinguish between strongly agree and agree and strongly disagree and disagree and also did not appear to fully understand agreeing or disagreeing with the statements. For future use of this scale, we recommend using 2-level agree/disagree response categories.

We tested recall periods for the food security questions of 1 month and 4 weeks. Respondents appeared to better understand "the past 4 weeks" versus "the last one month." The last one month was interpreted to be the previous month, not necessarily the last four weeks prior to the date of the survey administration, which was the intent of the question. Likewise, respondents sometimes had difficulty understanding "the last year," not knowing if it referred to the previous 12 months or the last calendar year.

The Cognitive interviews allowed us to better grasp the respondents' interpretations of specific concepts. A number of questions were difficult for children aged 10-17 to understand. Many understood the question, *Has anyone has ever talked to you or taught you about how children grow and develop?* as pertaining to hygiene and cleanliness. Also, many children had difficulty understanding the question, *Has someone ever talked to you or taught you about sex or sexual behavior?* The concept of trust in one of the Abler Hope Scale questions was challenging. In addition, some children had difficulty understanding the intent of the social support question, *Do you have someone in your life that can take you to the doctor if you needed it?* Some interpreted the question to be asking if they had access to health care or if their parents would take them to

the doctor or the pharmacy if they were sick, rather than assessing if they had someone to provide instrumental support.

We also found that responses to the question (posed to children aged 10-17 years), *How many hours a day do you spend doing household or farm chores?* varied based on if the child was in school or on holiday/vacation. Therefore, responses should be interpreted based on the period in which the survey is administered.

4.2.1. Household and primary caregiver

Respondent Demographics — There were 20 caregiver respondents.[9] All were female ranging in age from 22 to 51 years (mean=39.47). Age distribution data is presented in the table below.

Table 35.   Age Distribution of Respondents

Age Range (Years)	n
18-24	2
25-34	3
35-44	6
45-54	8
55+	0
Missing	1

Five respondents were married, 13 were widowed, one was divorced and another never married. All caregivers reported some schooling; however, literacy was low, with only four respondents reporting being able to read some or all of a sentence. Math skills were stronger, with 15 of 20 caregivers reporting being able to sum 3+5.

Twelve caregivers reported working during the three months prior to survey, with ten of these reporting working regularly throughout the year (one reported seasonal work and the other occasional work). All reported payment in cash (n=12). Of those employed, half of the respondents engaged in selling wares at the market (n=4) or elsewhere (n=3). Other work reported included farming (n=1), professional/administrative (n=1), caterer (n=1), teacher (n=1), and a hospital attendant (n=1).

In addition to the caregivers, in 14 households, other household members were also employed in some capacity during the year.

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[9] Sample size (N) for all variables is 20, except where otherwise stated.

Caregiver Burden — Table 36 presents data on the caregiver burden among sample respondents. The number of children for whom sample caregivers were responsible varies from 2 to 7, with a mean of 3.9 children.

Table 36. Number of Children under Care, by Age Group

Caregiver Respondent	Age Group				Total Number of Children under Care
	Under 5	6 to 10	11 to 15	16 to 17	
1	4	0	0	2	6
2	0	1	1	0	2
3	2	0	1	0	3
4	0	2	1	1	4
5	0	1	1	0	2
6	2	2	2	1	7
7	1	1	2	0	4
8	1	1	1	0	3
9	0	3	0	0	3
10	2	0	2	0	4
11	0	1	1	0	2
12	2	1	1	0	4
13	0	1	2	1	4
14	0	1	0	2	3
15	1	1	1	1	4
16	0	2	4	0	6
17	0	2	1	1	4
18	0	1	1	0	2
19	2	0	1	1	4
20	1	4	2	0	7
Total	18	25	25	10	78

Household Composition — We administered a household schedule to caregiver respondents. The majority of heads of household were female (n=15, N=19). Household size ranged from three to more than nine members. The mean household size was 6.75 members. Among all households surveyed, there were 73 single orphans and 32 double orphans.

Five households reported that a household member died in the year prior to survey. Of the deceased, three were 18-59 years, two were over 60 years, and one age was unknown. One household experienced two deaths in the family. Three households experienced the departure of

someone, with the departing members aged between 18-59 years. One household had three members leave within the previous 12 months. Due to a skip error in the tool, we were unable to calculate the number of new births/members.

Household Environment and Characteristics — We collected information on respondents' housing structures. The majority of houses had cement floors (n=16); two had carpeting, one had ceramic tiles, and one had an earth/sand floor. The majority of houses had metal/zinc roofs (n=18); one had a cement roof; and one had a shingled roof. The majority of houses had cement walls (n=10); five houses had dirt/mud walls, two houses had stone with mud walls, one house had reused wood walls, one house had brick walls, and one house had walls made of cement blocks.

The majority of respondents (n=18) owned their home.

Primary water sources reported include: bore holes (n=6), surface water (n=5), public tap/stand pipe (n=4), protected well (n=2), unprotected well (n=2), and piped water (n=1). The majority of respondents reported not having access to a toilet facility or outhouse (n=11). One respondent reported a flush to septic tank system, four respondents reported a flush to pit latrine system (n=4), two reported pit latrines with slab, one reported a ventilated improved pit latrine, and one reported an open pit.

Household Access to Money — Respondents were asked how their households access money to meet important needs: for food, for a regular household expense such as transport, and for unexpected emergency expenses. Data are presented in Table 37. The majority of households incurred some food-related expenses during the past month (n=14). The main payment mechanisms for any food-related expenses were current income (n=5), wages and savings (n=9), followed by loans and gifts (n=4), and two households sold yams at the market. One household could not pay for food expenses.

The table shows that nearly all of the households in the sample incurred educational expenditures during the past 12 weeks (n=19). As with food expenses, most respondents used current income and savings to cover these costs (n=11). Five households received some type of gift for educational expenses, one household obtained a loan, one sold an asset, and one bought and sold something.

Thirteen sample households incurred unexpected household repairs or medical expenses. These costs were usually covered by current income (n=4), household savings (n=2), gift (n=2) or loans (n=2). One household sold yams, one diverted funds from their business, and one received charity from the hospital that covered their expenses. One household was able to repair the problem on their own.

Table 37. Household Access to Money

Source of Money (Multiple Responses Possible)	Money Needed for:		
	Food N = 14	Education-Related Expenses N = 19	Unexpected Household Expenses N = 13
Current income	5	6	4
Savings	4	6	2
Loan	2	1	2
Gift	2	5	2
Sold asset	2	1	1
Could not pay	1	-	-
Other	-	-	2

Perceived Financial Security —Caregivers were asked, *Compared to last year at this time, do you feel that your household is more or less financially secure?* Most respondents indicated that their household was less financially secure in comparison to the previous year (n=12). One household was more secure, while seven households indicated there was no change from the previous year.

Assets — Respondents were asked whether their household had a number of assets. Assets owned by households are shown in Table 38. Among income-generating items and technology, most households own ploughs (n=13) and cell phones (n=17).

No respondents reported household ownership of cattle (tradition, dairy or beef), or horses, donkeys, mules, or sheep. Some households owned goats, chicken, and other poultry; see Table 39.

Also, five households said that a family member owned agricultural land. Three family members owned 1 acre, one owned 2 acres, and one owned 10 acres.

Table 38. Asset Ownership

Asset	Number of Households that Own Item
Radio	7
Television	8
Mobile telephone	17
Non-mobile telephone	1
Refrigerator	5
Bed	15
Chair	13
Table	8
Cupboard	2
Sofa	7
Clock	6
Fan	4
Sewing machine	2
Cassette player	1
Plough	13
Grain grinder	0
VCR/DVD	5
Tractor	0
Hammer mill	0
Watch	8
Generator	3
Bicycle	4
Animal-drawn cart	0
Motorcycle, motor scooter	6
Vehicle	0
Boat with a motor	0
Banana boat	0

Table 39. Number of Households Owning Animals

Type of Animal	Number of Animals Owned				
	1	2	3	4	5 or more
Goats	2	0	1	2	1
Chickens	1	1	4	1	0
Other poultry	1	1	2	1	8

Expenditures — Respondents were asked to estimate recent household expenditures for food, health care, education, and shelter and determine whether these expenses were higher or lower than the month before, and to explain why they were higher or lower. The range of expenditures across all the categories was quite large.

Household expenditures on food varied from 0 to 80,000 naira, with a mean of 13,008 naira. Five respondents said this was more than the previous month, eight said it was less, and seven said it was about the same.

The main reasons given for increased expenditures was reduced household food stores (n=3), increased food prices (n=4), and higher transport costs (n=1). Two respondents said they spent less money on food due to a good harvest, decreased food prices and receiving food support. Two respondents also replied "other," but the reasons were not recorded.

Respondents reported spending between 0 to 38,000 naira (mean of 10,937) on health care during the last 12 months. Ten respondents said they spent more on health care, nine spent less, and one said expenditures were about the same.

Reasons given for an increase in health care expenditure included a household member being sick (n=10), had to buy drugs (n=6), a routine check-up occurred during the month (n=3), and an increase in drug price (n=1). The main reason given for decreased expenditure on health care was that no one was sick (n=5) or fewer household members sick (n=2). Two respondents did not provide a response.

Respondents reported spending between 500 to 118,000 naira (mean 34,008) on educational expenses in the past month. Six respondents said they spent more on education, four spent less, and ten said expenditures were the same.

Reasons given for an increase in education expenditures include: higher school fees (n=5), and uniform or book purchases (n=3). Four respondents indicated that the number of children attending school increased while two respondents had to pay more for PTA and transport costs. The main reasons given for decreased education expenses included fewer household members going to school (n=1), only a uniform was needed (n=1), child switched to a cheaper school (n=1), and a relative helped pay (n=1).

Respondents reported spending between 0 to 200,000 naira (mean 23,225) on home improvements in the last 12 months. Six respondents said they spent more on home improvements, seven spent less, and seven said expenditures were the same.

Reasons given for an increase in home improvement expenditures include having extra money for improvements (n=4), connection to electricity (n=1), and one did not provide a response. The main reasons given for decreased home improvement expenses included no improvements needed (n=2), no improvements made (n=1), cheaper improvement (n=1), moved to cheaper house (n=1), no money (n=1), and other (n=1).

Household Food Security — We applied the Household Dietary Diversity Scale developed under the USAID-funded FANTA project, which asks whether any household member had various foodstuffs the previous day. The possible range for overall dietary diversity varies from 0 to 12 (FANTA, 2006). Caregivers reported dietary diversity scores from 1 to 10 (median=7; mean=6.1). Figure 4 shows the Dietary Diversity scores for "any household member" for the previous day and night.
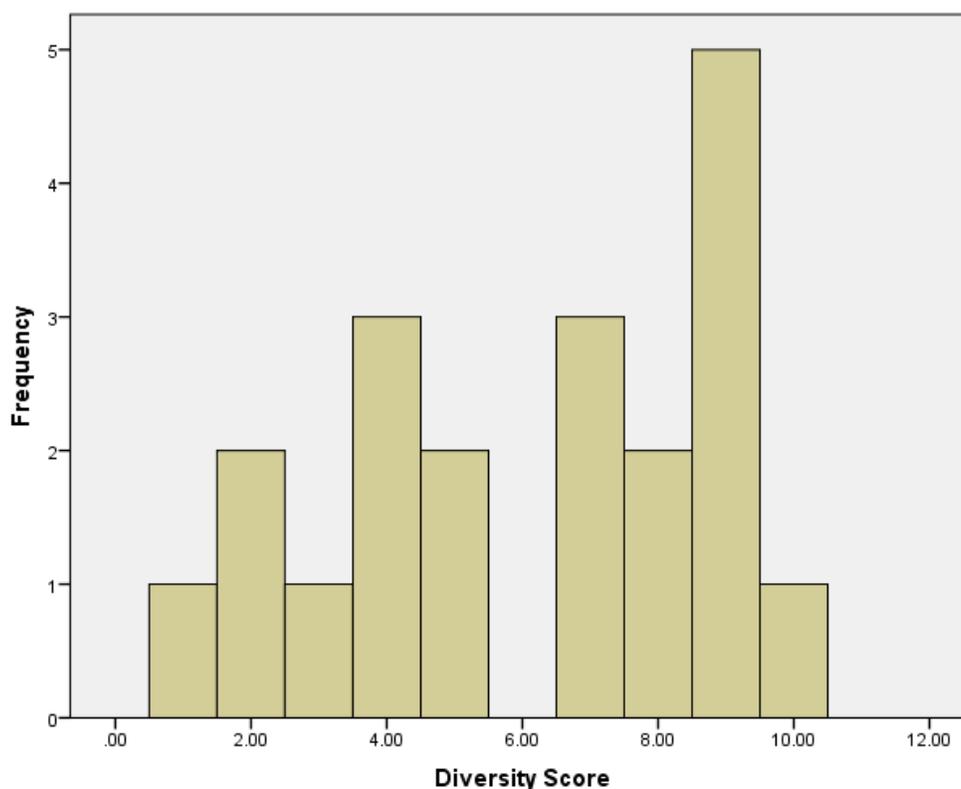
Figure 4.   Household dietary diversity.

We asked caregivers a number of questions about household food security. Nearly half of sampled households experienced food insecurity due to resource constraints. Nine caregivers reported that in the one month prior to survey, there was no food to eat in the household due to lack of resources to get food. Of these nine respondents, one reported this happening often (more than 10 times in the past one month), five reported this happening sometimes (3-10 times in the past one month), and three reported this happening rarely (1-2 times in the past one month).

Eight caregivers reported that in the one month prior to survey that they or a family member had to go to bed hungry because there was not enough food. Of these eight respondents, one reported this happening often (more than 10 times in the past one month), six reported this happening sometimes (3-10 times in the past one month), and one reported this happening rarely (1-2 times in the past one month).

Three caregivers reported that in the one month prior to survey that they or a family member had to go a whole day and night without eating because there was not enough food. All three respondents reported this happening sometimes (3-10 times in the last month).

Across all food security questions, it is the same households who responded positively (that they were food insecure).

The Household Hunger Scale score is a continuous measure of the degree of household hunger in the past four weeks. The maximum score for a household is 9 (if the caregiver response to all 3 questions was "often," coded with response code of 3); the minimum score is 0 (if the caregiver responded "no" to all occurrence questions, or if the interviewer skipped frequency-of-occurrence questions, which the data analyst would subsequently code as 0). The higher the score, the more hunger the household experienced. The lower the score, the less hunger a household experienced (Coates et al., 2007). Household hunger scores for respondents ranged from 1 to 6 (median=4; mean=4.2).

External Support to Household — Caregivers were asked about the types of support the household had received in the year prior to the survey. The main provider of assistance was family and friends (n=10), with cash amounts ranging from 1,300 to 20,000 naira (mean 9,811). One respondent did not indicate the amount received from family/ friends. One caregiver received cash support from a nongovernmental organization (NGO) equaling 30,000 naira. Two caregivers received cash support equaling 3,000 and 3,180 naira from other sources, but these sources were not recorded.

Services received by sample households are shown in Table 40. The most households received malaria information (n=17), followed by information on sexually transmitted infections and HIV (n=14) and free mosquito nets (n=13). Eleven respondents mentioned nutritional advice, ten mentioned information on birth spacing, and seven households received free food. Other health-related services that households received included home visits (n=8) and Vitamin A supplementation (n=6).

Families also received non-health services during the past year. Eleven respondents mentioned that a member of their household participated in a community savings group, while nine households benefited from livelihood training and eight received some life skills training.

Household Participation in Community Activities — Caregivers were asked whether anyone in their household participated in various community activities. Caregivers were the most active in community savings groups (n=3), parent's groups (n=4), trade associations/business groups (n=4), political groups (n=2), and women's groups (n=2). Among household members involved in activities, twenty were involved in microfinance, five in savings and lending groups, and two in community gardens.

Social Support — Respondents were asked whether they had someone to rely on for good times and challenges using the Rand Medical Outcomes Study social support scale. Data, presented in Table 41, indicate strong social support among respondents.

Table 40.   External Support Received by Households

Services	Yes	No
Nutritional advice in caring for your children	11	9
Free food	7	13
Vitamin A supplementation	6	14
Information on how to prevent HIV and other sexually transmitted infections	14	6
Information on birth spacing	10	10
Livelihood training/income-generation training	9	11
Community savings group	11	9
Life skills training	8	12
Psychosocial support from a home visitor or social worker	8	12
Free school supplies or a school uniform	4	16
Birth registration support	4	16
Paralegal support (wills, succession planning)	2	18
Malaria prevention education	17	3
Mosquito net	13	7
Vocational Training	10	10

Table 41.   Social Support

	Yes	No
Emotional/Information support		
Someone you can count on to listen to you when you need to talk.	15	5
Someone to give you information to help you understand a situation.	17	3
Someone to give you good advice about a crisis.	16	4
Someone to confide in or talk to about yourself or your problems.	15	5
Someone whose advice you really want.	16	4
Someone to share your most private worries and fears with.	13	7
Someone to turn to for suggestions about how to deal with a personal problem.	15	5
Someone who understands your problems.	13	7
Tangible support		
Someone to help you if you were confined to bed.	18	2
Someone to take you to the doctor if you needed it.	16	4
Someone to prepare your meals if you were unable to do it yourself.	18	2
Someone to help with daily chores if you were sick.	19	1
Affectionate support		
Someone who shows you love and affection.	14	6
Someone to love and make you feel wanted.	11	9
Someone who hugs you.	13	7
Positive social interaction		
Someone to have a good time with.	10	10
Someone to get together with for relaxation.	10	10
Someone to do something enjoyable with.	11	9
Someone to do things with to help you get your mind off things.	14	6

We conducted a reliability analysis for the full social support scale as well as the four key indicators (MEASURE Evaluation, 2014) (also used in the child 10-17 questionnaire). The full reliability analysis is presented in Appendix 4.

Caregiver Self-efficacy — Respondents were asked how well they felt they could meet the needs of the children in their care, in comparison to other households in their community. The majority of respondents reported that they could meet the needs of the children in their care about the same as other households. Findings are shown in Table 42.

Table 42.   Caregiver Self-Efficacy

Perceived Ability to Meet the Needs of Children in Care	n
Much better than other households	1
A bit better than other households	2
About the same as other households	12
A bit worse than other households	3
Much worse than other households	2
Total	20

Attitudes toward Violence — Respondents were asked about their acceptance of child beating. The majority of caregivers reported that beating a child is acceptable in certain circumstances. Data are presented in Table 43.

Table 43.   Acceptance of Child Beating

	Agree	Disagree
It is acceptable for a parent or guardian to beat their children if the child:		
goes out without telling the parent or guardian	12	8
does not finish his or her chores	13	7
disrupts the parent or guardian	8	12
is disobedient	16	4

Illness and Health-seeking Behavior — Eleven respondents reported going more than one day in the past one month where they were too sick or too tired to participate in daily activities. Of these, four reported that they were too sick or too tired for daily activities at least once a week, and seven reported that this happens once in a while.

Caregivers were asked whether they sought health care for their most serious illness in the last six months. Twelve responded that they did seek health care, four reported that they did not seek health care, and four reported that they were not sick in the previous six months. Reasons for not seeking health care included not being very sick (n=1), not having money (n=1), and no response (n=1).

Among caregivers who experienced a serious illness during the past six months (n=16), most sought health care during their illness (n=12).

Caregiver HIV/AIDS Knowledge, Attitudes, and Behavior — Respondents were asked if they have heard of HIV and if they had, they were asked a series of follow-up questions on HIV knowledge and attitudes. Sixteen of the twenty respondents reported having heard of HIV. Findings for the knowledge and attitudes on HIV/AIDS are presented in Table 44 below.

Table 44. HIV/AIDS Knowledge

Statement	Yes	No	Don't know
Can people reduce their chance of getting the AIDS virus by having just one uninfected sex partner who has no other sex partners?	14	1	1
Can people reduce their chance of getting the AIDS virus by using a condom every time they have sex?	13	1	2
Is it possible for a healthy-looking person to have the AIDS virus?	15		1
Can people get the AIDS virus from mosquito bites?	3	12	1
Can people get the AIDS virus by sharing food with a person who has AIDS?	15	0	1
Can the virus that causes AIDS be transmitted from a mother to her baby in pregnancy?	9	6	1
Can the virus that causes AIDS be transmitted from a mother to her baby during delivery?	9	6	1
Can the virus that causes AIDS be transmitted from a mother to her baby through breastfeeding?	10	4	2

Among the 16 caregivers who had heard of HIV/AIDS, 13 were tested for HIV. Twelve of these know the result of the test. Fifteen respondents reported knowing a place where people can get tested for HIV (N=16).

Thirteen respondents reported that children aged 12-14 should be taught about using a condom to avoid getting AIDS (N=16).

Time of Interview — The time taken to complete the interview ranged from 35 minutes to 1 hour and 27 minutes from start to finish (median=1.01hr; mean=1.06hr). One reason for the variation in time ranges is that not all respondents are required to respond to all questions due to skip patterns in the questionnaire.

4.2.2. Children Aged 0-9 Years

Respondent Demographics — The questionnaire for children aged 0-9 years was administered to caregivers of 20 different children. The age and sex distribution for 0-9 survey respondents is shown in Table 45.

Birth Certificate — Twelve of twenty sample children have a birth certificate, with eight certificates confirmed.

Table 45.   Respondent Age, by Sex

Age (years)	Female	Male	Total
< 5	6	2	8
5-9	7	5	12
Total	13	7	20

Health — The caregiver's perception of the child's overall health was categorized as excellent or good overall for all respondents.

None of the caregivers reported the sample children having a disability.

Caregivers were asked about the vaccination status of children under 5 years of age. The sample size was very small, limiting our ability to draw conclusions. Data are presented in Table 46 below.

Table 46.   Vaccinations for Children under 5 Years of Age (N=6)

Vaccine	Received, Confirmed with Card	Not Received	Received, Unconfirmed	Don't Know
BCG	3	-	3	-
Polio	-	-	3	-
OPV 0	3	-	3	-
OPV 1	3	1	1	1
OPV 2	3	1	1	1
OPV 3	3	-	2	1
DPT 1	3	-	-	-
DPT 2	3	-	2	1
DPT 3	3	-	-	-
Measles	3	-	-	-

Caregivers were asked whether children under the age of 5 years had experienced diarrhea in the two weeks prior to survey. Only one child under 5 had diarrhea during the past two weeks and had received treatment from a chemist.

Caregivers were asked whether children under the age of 5 had experienced fever in the two weeks prior to survey. The distribution for children under age 5 with a fever during the previous two weeks is shown in the table below. Two children were sick with a fever. Both were taken to the chemist for treatment and took drugs for this sickness.

Sleeping under a mosquito net is especially critical for children under age 5 to mitigate malaria transmission. Caregivers were asked whether the child slept under a mosquito net the night prior to the survey; data are presented in Table 47, by age group.

Table 47.   Slept under a Mosquito Net Last Night

		Age of Child	
		5-9 years	**0-4 years**
Did child sleep under a mosquito net last night?	YES	9	4
	NO	5	2
Total		14	6

Neglect — Caregivers were asked how many days in the past week the child 0-9 years of age in the sample was left alone for more than one hour. Only one child in the sample was left alone once during the past week for over an hour.

HIV Testing — Caregivers reported that 20 sample children were tested for HIV. Of these, caregivers reported receiving results for nine.

Food Security — As noted earlier, the possible range for overall food diversity is 0 to 12 (FANTA, 2006). Caregivers were asked to report on the dietary diversity of children aged 2 years and above. Among children in this sample, the dietary diversity range was 2 to 13 (N=19). The median dietary diversity score was 7 and the mean value was 7.6. Data are charted in Figure 5.

Caregivers were asked whether children had to skip meals due to resource or food availability. Six children reportedly had to skip a meal in the last one month because there was not enough food to eat. Of these, four caregivers reported this happening sometimes (3-10 times in the past one month), and two caregivers reported this happening rarely (1-2 times in the past one month).

Four children reportedly had to go to sleep hungry in the last one month because there was not enough food to eat. Of these, two caregivers reported this happening sometimes (3-10 times in the past one month), and two caregivers reported this happening rarely (1-2 times in the past one month).

Three children had to go a whole day and night without eating anything in the past one month because there was not enough food to eat. Of these, two caregivers reported this happening sometimes (3-10 times in the past one month), and one caregiver reported this happening rarely (1-2 times in the past one month).

Food insecurity was reported for the same three children across all scenarios.
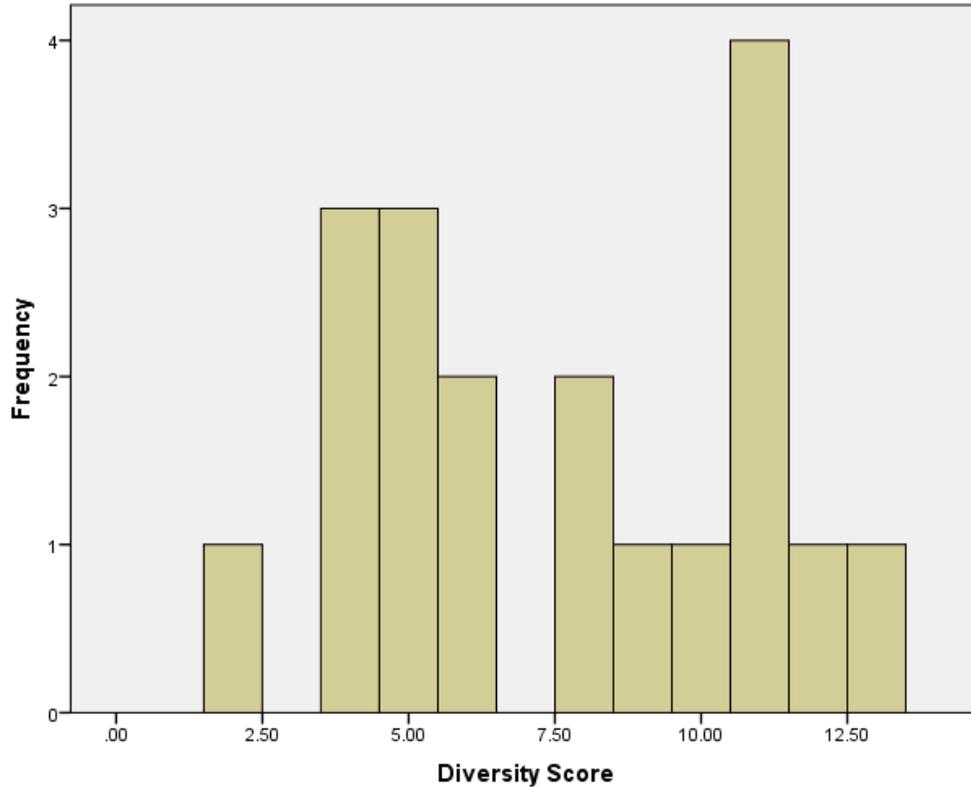
Figure 5.   Food diversity for children 2-9 years of age (N=19).

We calculated an adapted household Hunger Scale for children. This score is a continuous measure of the degree of household hunger in the past four weeks. The maximum score for a household is 9 (if the caregiver response to all three questions[10] was "often," coded with response code of 3); the minimum score is 0 (if the caregiver responded "no" to all occurrence questions or if the interviewer skipped frequency-of-occurrence questions, which the data analyst subsequently coded as 0). The higher the score, the more hunger the household experienced. The lower the score, the less hunger a household experienced (Coates et al., 2007).

Of the 19 respondents aged 2-9 years for whom the Hunger Score was calculated, five experienced some type of hunger. The range of scores was 1-6 (mean=3.8; median=3).

Education — Thirteen of fourteen children aged 5 years and older were reported to be enrolled in school. Of those children who were in school, two were reported as missing school during the past week due to sickness or lack of money for school fees.

All but two school-aged children in our sample (11 of 13) progressed academically from the previous to the current year.

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[10]   Did child have to (1) skip a meal, (2) go to bed hungry, (3) go a whole day and night without eating, because there was not enough food?

Only one child was reported as not currently being enrolled in school due to lack of money. This child had attended school during the past year and completed Primary Level 1.

Work — In the six months prior to survey, among children 5 years or older, two did some type of work, while twelve did not. Among the children who did some work, two did some type of labor, one hawked goods and one worked as a mechanic.

Early Childhood Education — There were three children in the sample aged 3-4 years. Of these, 1 attended some type of early childhood program. The two children not enrolled in an early childhood development program were engaged in some age-appropriate activities: both reportedly read books with their mother/other person, sang songs, and were taken outside. One child was otherwise played with and engaged in and counting.

External Support — Caregivers were asked whether the child received a number of services in the six months prior to survey. The table below presents the distribution for services received by sample children over the previous six months.

Table 48. Services or Items Received in the 6 Months Prior to Survey

Services or Items Received	Yes	No
Psychosocial counseling	4	16
Home visit from community care worker or social worker	-	-
Health care from a health professional	8	12
School fees paid for by organization	4	16
Free school supplies or a school uniform	4	16
Vitamin A supplement	7	13
Supplemental feeding	20	0
Participation in kids' club	1	19
Mosquito net	9	11

Anthropometric Measurements: Nutritional Status of Children 0-9 Years Old — Mid-upper arm circumference (MUAC) is a measurement that allows health workers to quickly determine if a patient is acutely malnourished. The MUAC shows the percentage of children aged 6-59 months with mid-upper arm circumference (MUAC) measurement < 115 mm (WHO, UNICEF, 2009).

Table 49 presents the MUAC for sampled children between 6 months and 59 months. None of the children sampled were acutely malnourished.

Table 49. MUAC in Millimeters, Children 6 Months to 60 Months (N = 9)[11]

Millimeters	Frequency	Percent
140	2	22.2
150	2	22.2
160	3	33.3
170	2	22.2
Total	9	100.0

Among the six children[12] 0-60 months surveyed, 29 percent fell below 2 standard deviations (SD) of the World Health Organization (WHO) Growth Standards population median and 14 percent fell below 3 SD on the height-for-age index. Seventeen percent fell below 2 SD from the WHO Growth Standards population median on the weight-for-age index. Seventeen percent fell above 2 SD from the WHO Growth Standards population median on the body mass index (BMI)-for-age index.

There are sex differences in nutritional status of children aged 0-60 months. Only female children were malnourished according to height-for-age and weight-for-age indices. Thus, 33 percent of girls versus 0 percent of boys fell below 2 SD on the height-for-age index, and 20 percent of girls versus 0 percent of boys fell below 2 SD on the weight-for-age index. Contrary to these findings, only female children were overweight according to the BMI-for-age index. Thus, 20 percent of girls vs 0 percent of boys fall above 2 SD on the BMI-for-age index.

The results suggest that there are residence-based differences in nutritional status of children aged 0-60 months. Only urban children were malnourished according to two anthropometric indices of nutritional status: height-for-age and weight-for-age. Thus, 40 percent of urban residents versus 0 percent of rural residents fell below 2 SD on the height-for-age index, and 20 percent of urban residents versus 0 percent of rural residents fell below 2 SD on the weight-for-age index. Contrary to these findings, only urban residents were overweight according to the BMI-for-age index. Thus, 20 percent of urban residents versus 0 percent of rural residents fell above 2 SD on the BMI-for-age index.

Among the 13 children[13] aged 61-119 months (5-9 years) surveyed, 8 percent fell below 2 SD of the WHO Growth Standards population median on all three anthropometric indices of nutritional status: height-for-age, BMI-for-age, and weight-for-age.

There are sex differences in nutritional status among children aged 61-119 months. Only male children were malnourished according to the BMI-for-age and weight-for-age indices. Thus, 17

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[11] Data were collected in centimeters and then converted to millimeters for comparison with UNICEF data. .
[12] The sample size is too small to present percentages and provide interpretation.
[13] The sample size is too small to present percentages and provide interpretation.

percent of boys versus 0 percent of girls fell below 2 SD on these two indices. Only female children were malnourished according to the height-for-age index. Thus, 14 percent of girls versus 0 percent of boys fell below 2 SD on this index.

The results suggest that there are residence-based differences in nutritional status of children aged 61-119 months. Only urban children were malnourished according to all three anthropometric indices of nutritional status: height-for-age, BMI-for-age, and weight-for-age. Thus, 20 percent of urban residents versus 0 percent of rural residents fell below 2 SD from the WHO Growth Standards population median on these three indices.

Table 50 presents the nutritional status of sample children using three anthropometric indices used by WHO.

Time of Interview — The time taken to complete the interview ranged from 9 minutes to 2 hours and 19 minutes from start to finish (median=30 minutes; mean=33 minutes). One reason for the variation in time ranges is that not all respondents are required to respond to all questions due to skip patterns in the questionnaire.

Table 50.   Nutritional Status of Children 0-9 Years Old

Background Characteristic	Height-for-Age			BMI-for-Age				Weight-for-Age			Number of children
	Percentage below -3 SD	Percentage below -2 SD[1]	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[1]	Percentage above +2 SD	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[1]	Mean Z-score (SD)	
0-60 months	14.3	28.6	-1.01	0	0	16.7	0.6	0	16.7	-0.33	6
Male	0	0	0.63	0	0	0	-0.09	0	0	0.34	1
Female	16.7	33.3	-1.28	0	0	20	0.74	0	20	-0.46	5
Urban	20	40	-1.28	0	0	20	0.69	0	20	-0.38	5
Rural	0	0	-0.34	0	0	0	0.17	0	0	-0.08	1
61-119 months	7.7[2]	7.7	-0.52	0	7.7	0	-0.59	0	7.7	-0.34	13
Male	0	0	0.33	0	16.7	0	-0.78	0	16.7	-0.22	6
Female	14.3[2]	14.3	-1.25	0	0	0	-0.43	0	0	-0.45	7
Urban	20[2]	20	-1.55	0	20	0	-0.77	0	20	-0.61	5
Rural	0	0	0.13	0	0	0	-0.48	0	0	-0.18	8

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
[2] Numbers for -3SD and -2SD are the same; probably, this is due to the small sample size

4.2.3. Children Aged 10-17 years

Respondent Demographics — Twenty children aged 10-17 responded to the survey. The sample has 10 males and 10 females, with an age distribution of 13 children below age 14 and 7 over the age of 15. Table 51 presents the ages of the children in the sample by sex.

Table 51. Respondent Age by Sex

Age Group	Female	Male	Total
10-14	8	5	13
15-17	2	5	7
Total	10	10	20

The majority of the children reported living with their parents (n=17) or other family members (n=7). Two reported living on their own. Most sample respondents have never been married (n=18) and two were currently cohabiting with a partner.

Birth Certificate — Nine of twenty respondents reported having a birth certificate, seven did not, three did not know if they had one, and one response was missing. Of the nine children with birth certificates, enumerators were able to confirm five.

Diary — Questions were asked primarily to establish rapport with the child respondent and to improve the accuracy of responses to similar questions within the rest of the questionnaire. For this reason, data were not analyzed.

Education — Most of the children reported attending school (n=18), and among this group seven reported missing school during the past week. Lack of money (n=3) or food (n=1) were the main reasons given for missing school during the past week. Two children were too sick to attend school.

Among the 18 children enrolled in school, only 1 did not make the grade progression while the progression of another student is unknown.

The one child who was not currently attending school indicated that lack of money was the reason for non-attendance. This child attended school as recently as the past year and completed Primary Level 6.

Chores —Eighteen children reported conducting some household or farm chores. Many children reported fetching water (n=14) and cleaning toilets (n=14), while others reported preparing food (n=7), washing clothes (n=6), sweeping/cleaning (n=6), tending to crops (n=5), taking care of children (n=3), helping parents out in a shop (n=2), and tending to animals (n=1).

Hours taken up by chores every day varied from less than 1 hour (n=5), to 1-2 hours (n=6), to 3-4 hours per day (n=3). Four children indicated that the number of chore hours depended on the day.

Work — Seven children reported participating in other work. Three of these children reported hawking goods, two reported household/farm chores for other families, two reported working as a mechanic, one reported working in a restaurant/bar, and three reported other work (welding apprentice, supplying water, selling food). One child reported working every day, one child reported working several times per week, two children reported working once a week, and three children reported working once in a while. Only two children provided a response when asked about the amount of time spent working. One reported working 3-4 hours per day and the other reported that it depended on the day.

Most children who reported doing non-routine work received payment (n=6). Most of these children gave the money to their parent or guardian (n=7), while others paid for school expenses (n=4), purchased food (n=1) or other things (n=2) and saved the money (n=1). In addition to chores and other work, two children reported begging for money.

Food Security — The FANTA dietary diversity scale was applied to all children. As noted earlier, the range in possible overall dietary diversity scores is 0 to 12 (FANTA, 2006). The range of scores among sampled children was 1 to 11; the median value was 5 and the mean value was 5.95. Data are presented in Figure 6.
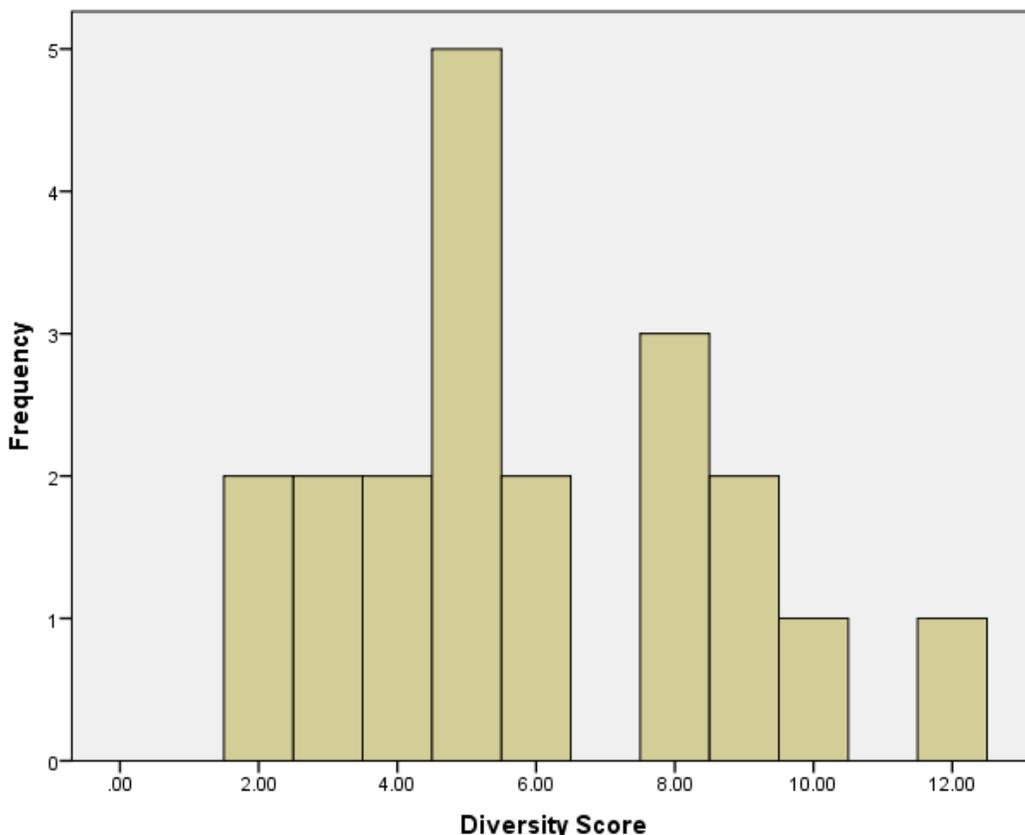

Figure 6.   Food consumed yesterday (day and night) for children aged 10-17 (N=20).

We applied the adapted household hunger scale to respondents. Seven respondents reported skipping a meal in the past one month due to lack of food. Of these, five reported this happening sometimes (3-10 times in the past one month), and two reported this happening rarely (1-2 times in the past one month).

Five respondents reported going to bed hungry because there was not enough food to eat. Of these, three reported this happening sometimes (3-10 times in the past one month), and two reported this happening rarely (1-2 times in the past one month).

Four respondents reported going a whole day and night without eating due to a lack of food. Of these, one reported this happening sometimes (3-10 times in the past one month), and three reported this happening rarely (1-2 times in the past one month).

The children reporting food insecurity are the same for each question asked.

We calculated an adapted Household Hunger Scale for children. As explained earlier, the higher the score, the higher the level of food security. We were able to calculate the Hunger Score for seven children. The range of responses was 1 to 6.

Health — Seventeen of the twenty children described their overall health as good (n=5), very good (n=6), or excellent (n=6) while three children reported fair health. Eight children reported being too sick to participate in normal activities during the two-week period before the interview. None of the pilot sample reported having a disability. Four children reported sleeping under a mosquito net the night prior to survey, while sixteen did not.

Of the sampled children, two reported having ever consumed alcohol. Both reported consuming the alcohol sometime during the week prior to the interview. Frequency of consumption for both these respondents was reported to be "once in a while."

Psychosocial Well-being — Table 52 shows the findings from the Abler Hope Scale (Abler, 2012). In general, most of the children in the sample were hopeful about their future. This scale is calculated as follows: Strongly Agree=4; Agree=3; Disagree=2; Strongly Disagree=1). The values are summed for each child, and a mean value calculated.

Figure 7 shows the distribution of individual mean values. Children with a mean distribution of 4 reported strongly agree to all of the items while those with a mean distribution between 3.1 and 4 reported strongly agree or agree to the majority of the items. Four respondents showed a mean distribution of 4, eleven showed a distribution between 3.1 and 4 while four had a mean distribution of 3 or less.

Table 52. Hope Scale

| Statement	Strongly Agree	Agree	Disagree	Strongly Disagree
You will be successful because you know other people like you who have been successful. Do you…?	10	9	-	1
There are people who can help you when you need guidance to achieve something important to you. Do you…?	13	7	-	-
You believe that the things you are doing now are preparing you for what you want in the future. Do you …?	12	7	-	1
You believe that you will be successful even when there are difficulties in your life now. Do you …?	10	10	-	-
You have more confidence in your future success than others your age. Do you …?	13	7	-	-
You know that your life will be better in the future. Do you …?	9	10	-	1
You trust that you will achieve the goals that you set for yourself. Do you …?	11	8	-	1
You can achieve your dreams if you focus on them. Do you …?	9	9	-	2
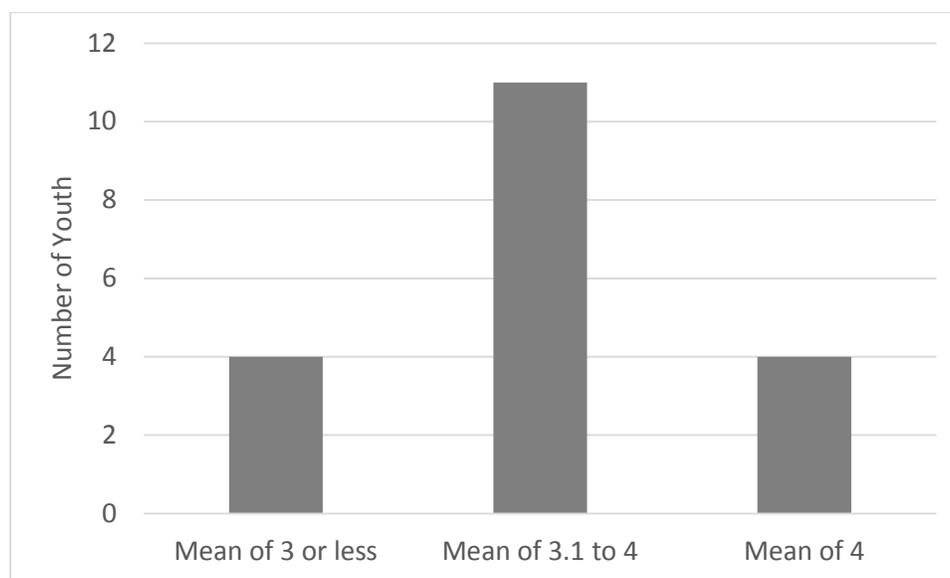
Figure 7.   Hope scores among children aged 10-17 years.

Table 53 presents the distribution of the questions on social support. Most children reported having someone to rely on from whom they feel love and care, though gaps were evident. The children who reported less social support did not necessarily score lower on the Hope Scale. Four children who scored 3 or higher on the Hope Scale responded "no" to one or more of the social support categories.

Table 53.   Social Support

Statement	Yes	No
Do you have someone in your life who you can confide in or talk to about yourself or your problems?	17	3
Do you have someone in your life who can take you to the doctor if needed?	20	-
Do you have someone in your life who shows you love and affection?	19	1
Do you have someone in your life who you can have a good time with?	16	4

Stigma and Abuse — Eight of the twenty respondents aged 10-17 experienced some stigma and discrimination either sometimes (n=5) or often (n=3).

Twelve of twenty respondents (two missing) reported having been hit, slapped, or spanked by an adult. Half of those (n=6) who reported having experienced violence did so a long time ago; the other half of children (n=6) reporting violence said that they were hit or spanked once in a while.

Child Development Knowledge — Children aged 12-17 were asked a series of question about their child development knowledge. Eight of sixteen respondents reported having discussed with adults how children grow and develop. Teachers were the main source of child development information (n=5), followed by family members (n=3).

Fewer children reported discussing sexual behavior: seven respondents reported having discussed this with an adult. Eight children were not informed about sexual behavior and one did not respond to the question. Teachers were the main source of information on sexual behavior (n=5), followed by family members (n=3).

HIV/AIDS Knowledge — The majority of respondents (n=16) reported having heard of AIDS and reported having spoken to someone about AIDS, with just one respondent reporting not having heard of AIDS. The main source of information for AIDS was teachers (n=9), followed by family members (n=3), a hospital (n=1), OVC meeting (n=1), and from friends (n=1).

Sixteen respondents aged 12-17 responded to questions on HIV transmission. A majority of children reported knowledge that being faithful could prevent transmission, but fewer understood that condom use could prevent transmission. A majority knew that a healthy-looking person could have HIV, but there were misconceptions around transmission; many children reported that HIV could be transmitted by mosquitoes or by sharing food. Knowledge on mother-to-child transmission was also inadequate. Data are shown in Table 54.

Table 54.   HIV/AIDS Knowledge (Ages 12-17 Years)

Statement	Yes	No	Don't know
Can people reduce their chance of getting the AIDS virus by having just one uninfected sex partner who has no other sex partners?	12	1	3
Can people reduce their chance of getting the AIDS virus by using a condom every time they have sex?	7	3	6
Is it possible for a healthy-looking person to have the AIDS virus?	13	2	1
Can people get the AIDS virus from mosquito bites?	7	7	2
Can people get the AIDS virus by sharing food with a person who has AIDS?	5	9	2
Can the virus that causes AIDS be transmitted from a mother to her baby in pregnancy?	4	9	3
Can the virus that causes AIDS be transmitted from a mother to her baby during delivery?	5	7	4
Can the virus that causes AIDS be transmitted from a mother to her baby through breastfeeding?	8	5	3

Three children aged 12-17 reported ever having been tested for HIV, with all three knowing their result. Seven children reported knowing a place where people could get tested for HIV.

None of the 16 children reported ever having had sex.

External Support — Children were asked what services they had received in the six months prior to survey. Services received or utilized included free mosquito nets (n=13), followed by a home visit from a community worker (n=9) and health care from a professional (n=7). Children aged 12-17 years, and then 15-17 years, were asked whether they received some additional services. Nine children reported receiving livelihood training (N=16) and all seven children aged 15-17 reported receiving life skills training. Data are presented in Table 55.

Table 55. Services or Items Received in the 6 Months Prior to Survey

Services or Items Received	Yes	No	No Response
Health care from a health professional	7	13	-
Home visit from a community worker or social worker	9	11	-
Free school supplies or a school uniform	5	15	-
Mosquito net	13	7	-
Participation in a kids club	5	15	-
Information on how to prevent HIV and other sexually transmitted infections (ages 12-17 years)	4	12	-
Information on birth spacing (ages 12-17 years)	3	11	2
Livelihood training (ages 12-17 years)	9	4	3
Life skills training (ages 15-17 years)	7	-	-

Anthropometric Measurements: Nutritional status of children 10-17 years old — As we see from Table 56, among the 20 children surveyed, 35 percent fell below 2 standard deviations (SD) of the WHO Growth Standards population median and 15 percent fell below 3 SD on the height-for-age index (WHO, UNICEF, 2009). Fifteen percent fell below 2 SD of the WHO Growth Standards population median on the BMI-for-age index.

There are sex differences in nutritional status of children aged 10-17 years old. More female children than male children were malnourished according to both anthropometric indices of nutritional status: height-for-age and BMI-for-age. Thus, 40 percent of girls versus 30 percent of boys fell below 2 SD on the height-for-age index, and 20 percent of girls versus 10 percent of boys fell below 2 SD on the BMI-for-age index.

In addition, there are age group differences in nutritional status among children aged 10-17 years. A higher percentage of younger children were malnourished according to both anthropometric indices of nutritional status: height-for-age and BMI-for-age. Thus, 39 percent of children in 10-14 age group versus 27 percent of children in 15-17 age group fell below 2 SD on the height-for-age index. Moreover, 23 percent of children in the 10-14 age group fell below 3 SD on the height-for-age index and no children in the 15-17 age group were below 3SD. On the BMI-for-age index, 23 percent of children in the 10-14 age group versus no children in the 15-17 age group fell below 2 SD of the WHO Growth Standards population median. Overall, children in the 15-17 age group demonstrated good nutritional status based on the BMI-for-age index with a mean Z-score equal to 0.13, and with zero percent falling below 2 SD of the WHO Growth Standards population median.

The results suggest that there are residence-based differences in nutritional status among children aged 10-17 years. A higher percentage of urban than rural children were malnourished according to both anthropometric indices of nutritional status: height-for-age and BMI-for-age. Thus, 44 percent of urban residents versus 27 percent of rural residents fell below 2 SD on the height-for-age index, and 22 percent of urban residents versus 9 percent of rural residents fell below 2 SD on the BMI-for-age index. However, the percentage of children who fell below 3 SD on the height-for-age index is slightly higher among rural residents (18 percent for rural versus 11 percent for urban residents).

Time of Interview — The time taken to complete the interview ranged from 17 minutes to 1 hour and 24 minutes from start to finish (median=50 minutes; mean=51 minutes). One reason for the variation in time ranges is that not all respondents are required to respond to all questions due to skip patterns in the questionnaire.

Reliability Assessment — There was high survey reliability during the reliability assessment of the 16 key measures (see Appendix 1 for the list of questions) in the 10 households sampled. Responses were 100 percent consistent between rounds in five households, in four households only one response changed, and in one household two responses changed.

Table 56. Nutritional Status of Children 10-17 Years Old

Background characteristic	Height-for-Age			BMI-for-Age				
	Percentage below -3 SD	Percentage below -2 SD[1]	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[1]	Percentage above +2 SD	Mean Z-score (SD)	Number of children
Age								
10-14	23.1	38.5	-1.85	0	23.1	, with a 0	-1.22	13
15-17	0	28.6	-1.53	0	0	0	0.13	7
Sex								
Male	10	30	-1.72	0	10	0	-0.64	10
Female	20	40	-1.75	0	20	0	-0.86	10
Residence								
Urban	11.1	44.4	-1.92	0	22.2	0	-0.88	9
Rural	18.2	27.3	-1.59	0	9.1	0	-0.64	11
Total	15	35	-1.74	0	15	0	-0.75	20

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.

4.2.4. Questionnaire Revisions after Piloting

There were very few questionnaire revisions after the Nigeria pilot, suggesting that the majority of the problematic questions had been corrected prior to this second round of piloting. In the Nigeria pilot the full social support scale was piloted so that we could conduct a reliability analysis to determine the best performing questions for each type of social support. This reliability analysis was conducted and three of the four social support questions were changed in the final tool (see Appendix 4).

A few questions were, however, added after the Zambia pilot and tested in Nigeria. We included the Abler Hope Scale for children aged 10-17 years. Variability in responses was limited, and it may be possible to reduce response categories to increase variability for future use. We also piloted an additional household economic strengthening question: "How well do you feel you can meet the needs of the children in your care? Would you say …?" with the following response categories: much better than other households; a bit better than other households; about the same as other households; a bit worse than other households; and much worse than other households. This question could be considered for further testing in other contexts. Finally, two questions each on neglect and early childhood education were piloted in Nigeria.

5. Overall Lessons Learned

In general, questionnaire items were well understood; however, questions on access to money and banking services and self-efficacy demonstrated poor variability. We are considering additional revisions to the "access to money" questions to more effectively capture change over time.

Overall, Likert scale responses did not translate well. Respondents struggled to distinguish between items such as "strongly agree" and "agree."

Pre-testing raised concern about how to best address child-headed households, as the caregiver questionnaire is tailored to an adult respondent, and both child questionnaires assume a previous interview with the adult caregiver.

Anecdotal evidence from data collectors who participated in the pre-test suggests that the diary added significantly to the length of the overall interview while not providing any unique data, as the key questions were asked later in the questionnaire.

During the pilot tests, an index child was sampled from each household using a Kish grid (Kish, 1949). This methodology was used successfully; however, correct use of this method requires that data collectors be trained on this specific methodology.

Pilot testing of new tools is critical, yet rarely done. Results from these pilot tests informed revision of the questionnaires, which are now ready for public use. We are further revising the questionnaires for use in child-headed households. Previous use of cognitive interviews in sub-Saharan Africa is limited and there is little published research on their application in less-developed settings. Our results indicate that cognitive interviewing is a challenging, yet potentially useful, methodology for this context and that adaptations to the methodology should be considered, including providing specific probes for individual questions rather than using a general set of probes. We recommend this pilot testing methodology, with the suggested adaptations made to the cognitive interviewing methodology, to colleagues seeking to improve the integrity of their measures and results.

References

Abler L. (2012). Developing a measure of hope for exploring HIV-related risks among young South African women in a high prevalence setting. PhD Dissertation. Chapel Hill, NC: University of North Carolina, Chapel Hill.

Coates J., Swindale A., Bilinsky P. (2007). *Household Food Insecurity Access Scale (HFIAS) for Measurement of Household Food Access: Indicator Guide (v. 3).* Washington, DC: FANTA, FHI 360. Available at: http://www.fantaproject.org/sites/default/files/resources/HFIAS_ENG_v3_Aug07.pdf.

de Leeuw, E. D., Borgers, N., & Smits, A. (2004). Pretesting questionnaires for children and adolescents. In S. Presser, J. M. Rothgeb, M. P. Cooper, J. T. Lessler, E. Martin, J. Martin & E. Singer (Eds.), *Methods for testing and evaluating survey questionnaires.* Hoboken, NJ: Wiley & Sons.

Food and Nutrition Technical Assistance (FANTA) project. (2006). *Household Dietary Diversity Score (HDDS) for Measurement of Household Food Access: Indicator Guide.* Washington, DC: FANTA, FHI 360. Available at: http://www.fantaproject.org/sites/default/files/resources/HDDS_v2_Sep06_0.pdf

Kish, L. (1949). A Procedure for Objective Respondent Selection within the Household. *Journal of the American Statistical Association*, 44(247), pp. 380-387.

MEASURE DHS. (2012). *Tabulation Plan for DHS Final Report.* Calverton, MD: MEASURE DHS, ICF International. Available at: http://www.measuredhs.com/publications/publication-dhsm6-dhs-questionnaires-and-manuals.cfm.

MEASURE Evaluation. (2014). *Key Impact Indicators for OVC Programs.* Chapel Hill, N.C.: MEASURE Evaluation.

MEASURE Evaluation (2014). *Child, Caregiver & Household Well-being Survey Tools for Orphans & Vulnerable Children Programs: Analysis Guidance.* Chapel Hill, N.C.: MEASURE Evaluation.

Schreiner, M. (2008). *Nigeria Progress out of Poverty Index.* Washington, D.C.: Grameen Foundation.

Snyder, C.R., Hoza, B., Pelham, W.E., Rapoff, M., Ware, L., Danovsky, M., et al. (1997). The Development and Validation of the Children's Hope Scale. *Journal of Pediatric Psychology*, 22 (3), 399-421.

World Health Organization (WHO) and United Nations Children's Fund (UNICEF). (2009). *WHO Child Growth Standards and the Identification of Severe Acute Malnutrition in Infants and Children.* Geneva: World Health Organization.

Woolley, M. E., Bowen, G. L., & Bowen, N. K. (2004). Cognitive pretesting and the developmental validity of child self-report instruments: Theory and applications. *Research on Social Work Practice*, 14(3), pp. 191-200.

Appendix 1.   Questions for Reliability Assessment in Nigeria Pilot

1. I don't want to know the result, but has [child's name] been tested to see if he/she has the AIDS virus?

2. At any point in the last 2 weeks, has [child's name] been too sick to participate in daily activities?

3. Does [NAME] have a birth certificate?

4. Could you please show me [child's name] birth certificate?

5. Is [child's name] currently enrolled in school?

6. During the last school week, did [child's name] miss any school days for any reason?

7. What grade/class is [child's name] currently in?

8. What grade/class was [child's name] in last year?

9. In the past 3 days, did you or any household member over 15 years of age engage in any of the following activities with [child's name]: **Read out questions a) through f) one at a time. If YES, ask:** Who engaged in this activity with [child's name]?

10. Did your household incur any food-related expenses in the last 4 weeks? (If yes) Thinking about the last time your household bought any food for eating or cooking, how did your household pay? **Read responses. Prompt if necessary:** garri, rice, yam, sugar, cooking oil etc. **Please select ONE response only.**

11. Did your household incur any school-related expenses in the last 12 months? (If yes) Thinking about the last time your household had to pay for any school-related expenses, how did your household pay? **Read responses. Prompt if necessary:** PT fees, uniforms, books, other materials etc**. Please select ONE response only.**

12. Did your household incur any unexpected household expenses, such as a house repair or urgent medical treatment, in the last 12 months? (If yes) Thinking about the last time your household had to pay for an unexpected household expense, such as a house repair, or urgent medical treatment, how did your household pay? **Do not read responses. Please select ONE response only.**

Appendix 2. Revisions to the Questionnaires as a Result of Pilot Testing

Questionnaire/Section	Revisions after Zambia Pilot (March 2013)	Revisions after Nigeria Pilot (October 2013)
Caregiver		
Cover Page	We made small revisions to the GPS response options, added interview log response options, codes for the supervisor and data entry staff person, and a question on start time.	No changes.
Household Schedule* & Demographics	The following questions were added: • What is your relationship to (NAME of child)? • Who usually cares for/looks after (NAME)? • Is (NAME)'s natural mother alive? • Is (NAME)'s natural father alive?	No changes.
Background Information on Caregiver and Household	• Q208 (recent work): We pilot tested two timeframes (3 months and 12 months). There was no variability between responses; the revised questionnaire uses 3 months. • Q211-213 (access to money): Language was revised to make the question more concrete (from "if you had to" to "the last time you had to") and response categories were revised. • Q214 was not included.	No changes.
Household Food Security	We piloted a range of recall periods (1 week, 7 days, 2 weeks, 4 weeks, 1 month) and found little variability. Recall period was standardized at 4 weeks per the FANTA scale.	We piloted the 1 month recall period in the household pre-test.
Caregiver Well-being	• Social capital: We piloted two social capital questions; neither produced much variability and neither was included in the updated global tool.[14] • Hope: We piloted two hope questions; due to limited variability in responses, neither was included in the updated global tool.	• The full Rand Medical Outcomes Study Social Support Scale was piloted. A reliability analysis was conducted and three of the four social support questions were changed in the final tool (Appendix 4).

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[14] Some of these scales were included in the final SILC evaluation study tool, even if not in the final global tool.

Questionnaire/Section	Revisions after Zambia Pilot (March 2013)	Revisions after Nigeria Pilot (October 2013)
	• Self-esteem: We piloted two self-esteem questions; due to limited variability in responses, neither was included in the updated global tool. • General self-efficacy: We piloted the full general self-efficacy scale, as well as one additional self-efficacy question. None of the questions were included in the updated global tool due to scale length and limited variability of responses. • Parental self-efficacy: We piloted three additional questions; all had limited variability. None were included in the updated global tool. Q407 (the current parental self-efficacy question in the tool) was not included in the pilot.	• Parental Self Efficacy: We piloted the following question: Compared to other households in your community, how well do you feel you can meet the needs of the children in your care? Would you say …?
HIV/AIDS Knowledge and Behavior*	Not included.	No changes.
Access to HIV Prevention Care and Support	No changes.	No changes.
Optional Module 1: Household Economic Status	The follow up questions on why respondents spent more or less on various items in the month prior to survey were split and skips were added.	We piloted an additional household economic security question: "How well do you feel you can meet the needs of the children in your care? Would you say …?" with the following response categories: much better than other households; a bit better than other households; about the same as other households; a bit worse than other households; much worse than other households. This question could be considered for further testing in other contexts.
Optional Module 2: Dietary Diversity	No changes.	No changes.
Optional Module 5: Gender Roles and Decision Making	No changes.	Not included.

Questionnaire/Section	Revisions after Zambia Pilot (March 2013)	Revisions after Nigeria Pilot (October 2013)
Power*		
Optional Module 6: HIV/AIDS Attitudes*	Not included.	Not included.
Child aged 0-9 years		
Cover Page	We added interview log response options, codes for the supervisor and data entry staff person, and a question on start time.	No changes.
Health and Protection	• We changed the wording of Q107. • We changed the format of the vaccination questions after piloting to reflect the DHS format. • We piloted the strengths and difficulties questionnaire; due to concerns over the length of this questionnaire and poor sensitivity to change over time, this was not included in the final tool. • Q126 and Q127 on neglect were not included. These were added in consultation with stakeholders after the pilot.	No changes. Q126 and Q127 were piloted.
Education and Work	No changes. Q213 and Q214 on early childhood education were not included. These were added in consultation with stakeholders after the pilot.	No changes. Q213 and Q214 on early childhood education were piloted.
Food Consumption	We piloted a range of recall periods (1 week, 7 days, 2 weeks, 4 weeks, 1 month) and found little variability. Recall period was standardized at 4 weeks per the FANTA scale.	We piloted the 1 month recall period in the household pre-test.
Access to HIV Prevention Care and Support	No changes.	No changes.
Anthropometric Measurements	We changed the format of the responses.	No changes.
Optional Module 1: Diarrhea (extended)*	No changes.	Not included.
Optional Module 2: Fever (extended)*	We removed the following question: Where did you obtain the drugs?	Not included.
Optional Module 4: Dietary Diversity	No changes.	No changes.

Questionnaire/Section	Revisions after Zambia Pilot (March 2013)	Revisions after Nigeria Pilot (October 2013)
	Child aged 10-17 years	
Cover Page	We added interview log response options, codes for the supervisor and data entry staff person, and a question on start time.	No changes.
Background Information	No changes.	No changes.
Diary	No changes.	No changes but may consider removing in future versions.
Education	• Questions on current enrollment were revised for clarity. • Missed school days: Original language asked respondent whether they missed the last school day; questions were revised to ask about any missed school days in the week prior to survey.	Removed Q301
Chores and Work	No changes.	No changes.
Food and Alcohol Consumption	• We piloted a range of recall periods (1 week, 7 days, 2 weeks, 4 weeks, 1 month) and found little variability. Recall period was standardized at 4 weeks per the FANTA scale. • Questions on alcohol consumption (509-511) were not included.	Not included.

Health, Support and Protection	• We pilot tested a number of questions related to a child's psychosocial well-being, which were ultimately not included in the final questionnaire due to limited variability of responses, poor understanding, length of scales, and unclear data use/attribution of outcomes to PEPFAR. These questions included:
	  o How often the child feels worried/happy
	  o How often the child can get help if worried or happy
	  o To whom the child can go to for help
	  o An adaption of the Abler Hope Scale
	  o An additional hope question: I feel hopeful about my future
	  o A self-efficacy question: If I try hard to do something, I
		We included the Abler Hope Scale for children aged 10-17 years in the pilot. There was limited variability in responses, but it is possible to reduce response categories to increase variability for future use.

Questionnaire/Section	Revisions after Zambia Pilot (March 2013)	Revisions after Nigeria Pilot (October 2013)
	can succeed. o Strengths and Difficulties Questionnaire • Questions 606-609 on social support were not included.	
HIV/AIDS Knowledge, Attitudes and Sexual Behavior	Not included.	No changes.
Access to HIV Prevention Care and Support	No changes.	No changes.
Anthropometric Measurements	We changed the format of the responses to improve data quality.	No changes.
Optional Module 1: Dietary Diversity	No changes.	No changes.
Optional Module 4: Child Development Knowledge	Not included.	No changes.
Optional Module 5: HIV/AIDS Attitudes and Beliefs	Not included.	No changes.
Optional Module 6: Sexual Behavior	Not included.	No changes.

*Questions were taken directly from the Demographic and Health survey.

Appendix 3.   SDQ Scoring Guide

	Normal	Borderline	Abnormal
Total Difficulties Score	0-15	16-19	20-40
Emotional Symptoms Score	0-5	6	7-10
Conduct Problems Score	0-3	4	5-10
Hyperactivity Score	0-5	6	7-10
Peer Problems Score	0-3	4-5	6-10
Prosocial Behavior Score	6-10	5	0-4

Appendix 4. Description of the Reliability Analysis Conducted on the Full Social Support Scale in Nigeria

First, we calculated Cronbach Alpha for the full social support scale in the Caregiver Questionnaire (items P502-P520). Alpha was equal to 0.93, which is very high. Note, Cronbach Alpha may have values from 0 to 1; the closer to 1, the higher the reliability of the scale.

Next, we calculated Cronbach Alpha for each of the four social support sub-scales. Alpha for the emotional support section (P502-509) was 0.93, for tangible support (P510-513) it was 0.79, for affectionate support (P514-516) it was 0.93, and for positive social interaction (P517-519) alpha was 0.93.

The output that we received indicated how each item was correlated with the total score and what the alpha would be if that variable were to be deleted. We wanted to keep one item from each scale that would "represent" well the rest of the items in the corresponding sub-scale. We selected the item that had high correlation with the total score and had high impact on alpha; i.e., if the item were to be deleted, alpha would decrease greatly.

As a result, we decided to replace the question, "Do you have someone in your life that you can confide in or talk to about yourself or your problems?" (correlation with the total score =0.67, alpha would be 0.92 if this variable were to be deleted) with the question, "Do you have someone to turn to for suggestions about how to deal with a personal problem?" (correlation with the total score =0.83, alpha would be 0.91 if this variable were to be deleted) because its correlation with the total score was one of the highest and people did not have different understanding of the meaning of the item during the pilot test. Please see Output 1 below.

Output 1. Cronbach Coefficient Alpha with Deleted Variable (P502-509)

Cronbach Coefficient Alpha with Deleted Variable					
Deleted Variable	**Raw Variables*[15]**		**Standardized Variables***		**Label**
	Correlation with Total	**Alpha**	**Correlation with Total**	**Alpha**	
P502	0.666906	0.921834	0.677513	0.920841	Someone you can count on to listen to you when you need to talk.
P503	0.514010	0.931221	0.520477	0.932554	Someone to give you information to help you understand a situation.
P504	0.867502	0.906854	0.871336	0.905620	Someone to give you good advice about a

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[15]As can be seen from the outputs, Cronbach Alpha procedure returns two coefficients. Raw coefficient is based upon item correlation. Standardized coefficient is based upon item covariance. The standardized Alpha is used when scales are comparable. You may report Raw coefficient because our items are measured on the same scale.

Cronbach Coefficient Alpha with Deleted Variable				
Deleted Variable	Raw Variables*[15]		Standardized Variables*		Label
	Correlation with Total	Alpha	Correlation with Total	Alpha	
					crisis.
P505	0.666906	0.921834	0.661792	0.922039	Someone to confide in or talk to about yourself or your problems.
P506	0.867502	0.906854	0.871336	0.905620	Someone whose advice you really want.
P507	0.764350	0.914593	0.754687	0.914884	Someone to share your most private worries and fears with.
P508	0.827967	0.909143	0.824098	0.909409	Someone to turn to for suggestions about how to deal with a personal problem.
P509	0.815301	0.910114	0.803212	0.911068	Someone who understands your problems.

We decided to replace the question, "Do you have someone in your life that can take you to the doctor if you needed it?" (correlation with the total score =0.54, alpha would be 0.80 if this variable were to be deleted) with the question, "Do you have someone to help with daily chores if you were sick?" (correlation with the total score =0.75, alpha would be 0.70 if this variable were to be deleted) because its correlation with the total score was one of the highest and alpha would be much lower if this item were to be deleted. Please see Output 2 below.

Output 2. Cronbach Coefficient Alpha with Deleted Variable (P510-513)

Cronbach Coefficient Alpha with Deleted Variable				
Deleted Variable	Raw Variables		Standardized Variables		Label
	Correlation with Total	Alpha	Correlation with Total	Alpha	
P510	0.757271	0.654028	0.747519	0.723356	Someone to help you if you were confined to bed.
P511	0.537086	0.800000	0.533721	0.822481	Someone to take you to the doctor if you needed it
P512	0.483916	0.788845	0.537095	0.821010	Someone to prepare your meals if you were unable to do it yourself.
P513	0.745601	0.703125	0.767239	0.713592	Someone to help with daily chores if you were sick.

We decided to keep the question "Do you have someone in your life that shows you love and affection?" because its correlation with total was high (0.92) and alpha would be reduced from 0.93 to 0.83 if this item were to be deleted. Please see Output 3 below.

Output 3. Cronbach Coefficient Alpha with Deleted Variable (P514-516)

Deleted Variable	Raw Variables		Standardized Variables		Label
	Correlation with Total	Alpha	Correlation with Total	Alpha	
P514	0.922139	0.838095	0.928371	0.839737	Someone who shows you love and affection.
P515	0.922139	0.838095	0.928371	0.839737	Someone to love and make you feel wanted.
P516	0.723747	1.000000	0.723747	1.000000	Someone who hugs you.

Last, we decided to replace the question, "Do you have someone in your life that you can have a good time with?" (correlation with the total score =0.79, alpha would be 0.95 if this variable were to be deleted) with the question, "Do you have someone to do something enjoyable with?" (correlation with the total score =0.92, alpha would be 0.85 if this variable were to be deleted) because its correlation with the total score was the highest and alpha would be much lower if this item were to be deleted. Please see Output 4 below.

Output 4. Cronbach Coefficient Alpha with Deleted Variable (P517-519)

Deleted Variable	Raw Variables		Standardized Variables		Label
	Correlation with Total	Alpha	Correlation with Total	Alpha	
P517	0.791548	0.949868	0.791647	0.949874	Someone to have a good time with.
P518	0.862662	0.895349	0.860793	0.895788	Someone to get together with for relaxation.
P519	0.922539	0.845921	0.921398	0.846464	Someone to do something enjoyable with.

We calculated Cronbach Alpha for the reduced social support scale in the Caregiver Questionnaire (items 508, 513, 514, 519). Item 513 had the lowest correlation with the total

score and item 514 had the highest correlation with the total score. In our dataset with 20 observations,[16] alpha was equal to 0.77, which is good.

Output 5. Cronbach Coefficient Alpha with Deleted Variable (P508, 513, 514, 519)

Cronbach Coefficient Alpha	
Variables	**Alpha**
Raw	0.772888
Standardized	0.773262

Cronbach Coefficient Alpha with Deleted Variable				
Deleted Variable	**Raw Variables**		**Standardized Variables**		**Label**
	Correlation with Total	**Alpha**	**Correlation with Total**	**Alpha**	
P508	0.589256	0.710937	0.602770	0.704332	Someone to turn to for suggestions about how to deal with a personal problem.
P513	0.387783	0.808929	0.392197	0.809788	Someone to help with daily chores if you were sick.
P514	0.799187	0.580952	0.753541	0.620121	Someone who shows you love and affection.
P519	0.614088	0.705357	0.576708	0.718136	Someone to do something enjoyable with.

Based on this analysis, the final suggested social support scale items are:

1. Someone to turn to for suggestions about how to deal with a personal problem (P 508)
2. Someone to help with daily chores if you were sick (P 513)
3. Someone to show you love and affection (P 514)
4. Someone to do something enjoyable with (P 519)

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[16] There were 20 observations in our dataset. Therefore, coefficient alpha may not be robust against the violation of the normality assumption. However, according to Sheng and Sheng ("Is Coefficient Alpha Robust to Non-Normal Data?" available at http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3279724/#B17), researchers have various recommendations regarding the sample size for alpha coefficient calculation. The recommendations range from 15-20, a minimum of 30 to a minimum of 300.