

MONITORING WELL-BEING OUTCOMES AMONG COVida PROJECT BENEFICIARIES IN MOZAMBIQUE

KEY FINDINGS FROM THE BASELINE
EVALUTION

July 2018

MONITORING WELL-BEING OUTCOMES AMONG COVIDA PROJECT BENEFICIARIES IN MOZAMBIQUE

KEY FINDINGS FROM THE BASELINE EVALUATION SURVEY OF THIS
PEPFAR-FUNDED ORPHANS AND VULNERABLE CHILDREN PROJECT IN
MOZAMBIQUE

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July 2018

Award No. 656-15-000006

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ACKNOWLEDGMENTS

We thank the United States Agency for International Development (USAID) and the United States President's Emergency Plan for AIDS Relief (PEPFAR) for their support of this work.

We thank Dionisio Matos of USAID/Mozambique and Christine Fu of USAID/Washington for helping to conceptualize this study, guiding the implementation, and reviewing the report. We appreciate the COVida project steering group, including all consortium partners, for their review of the data and recommendations presented in this report and Margo Young for editorial support.

We are grateful to colleagues at COWI Mozambique for their support during implementation of the project, especially the field team that collected the data. We extend special thanks to the women, men, and children who participated in the survey for their time and the valuable information they provided.

Suggested citation: Chapman, J.L., Cabral, I., Lauchande, C., Albert, L.M. *Monitoring well-being outcomes among COVida project beneficiaries: Key findings from the baseline evaluation.* Maputo, Mozambique: COVida.

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ACROYNMS

CI	Confidence Interval
DHS	Demographic and Health Survey
ESI	Essential Survey Indicators
LL	Lower Limit
MER	Monitoring, Evaluation, and Reporting
MUAC	Mid-Upper Arm Circumference
OVC	Orphans and Vulnerable Children
PEPFAR	United States President's Emergency Plan for AIDS Relief
UL	Upper Limit
UNICEF	United Nations Children's Fund

EXECUTIVE SUMMARY

Evaluation Purpose

The evaluation has three objectives:

1. To provide baseline information on the status of the COVida beneficiary population to enable informed program planning.
2. To assess the impacts of COVida programming on key measures of beneficiary well-being over time.
3. To fulfill project reporting requirements.

Project Background

COVida is a five-year (2016-2021) USAID-funded project implemented by FHI360 in partnership with Palladium, World Vision, CARE, Path, and N'weti. The goal of COVida is to improve the health, nutritional status, and well-being of OVC living in PEPFAR-defined priority districts for epidemic control. The project will support 300,000 OVC and their caregivers to access high-quality, comprehensive, compassionate services across all of Mozambique's provinces.

Evaluation Design

Palladium conducted a household survey using a two-stage cluster sample design among active COVida beneficiaries enrolled in project year 1 (2016-2017). Forty-eight clusters were randomly selected and 30 households were randomly selected from within each cluster to yield a sample size of 1,440 households. A standardized questionnaire was used to interview OVC caregivers about services received and the well-being of the children in the household.

Findings

The survey team completed 1,250 interviews with caregivers about 4,491 children in their care. The survey response rate was 86.8 percent. Key findings are presented in the table below. MER essential survey indicators are noted with an asterisk.

Indicator	n	N	%	95% confidence interval	
				LL	UL
Health					
Percent of children too sick to participate in daily activities*	658	4481	14.3	12.5	16.1
Percent of children whose primary caregiver knows the child's HIV status*	1526	4451	35.2	28.5	41.8
Percent of caregivers who have been tested for HIV and who have received their results (self-report)	843	1245	68.9	62.1	75.8

Indicator	n	N	%	95% confidence interval	
				LL	UL
Nutrition					
Percent of children <5 years of age who are undernourished*	28	942	3.0	1.6	4.4
Early childhood development					
Percent of children <5 years of age who recently engaged in stimulating activities with any household member over 15 years of age*	801	1028	75.4	68.6	82.2
Rights					
Percent of children who have a birth certificate*	1957	4491	43.6	39.7	47.5
Percent of caregivers who can name at least three child rights	833	1250	67.6	61.7	73.6
Percent of caregivers who think that early marriage (before 18 years) should stop	1066	1234	86.3	83.7	88.9
Education					
Primary school enrolment (ages 6-11 years)	1602	2086	77.6	73.1	82.2
Secondary school enrolment (ages 12-17 years)	765	1079	70.1	64.9	75.2
Percent of children (ages 5-17 years) regularly attending school*	1952	3458	56.7	52.9	60.5
Percent of children who progressed in school during the last year*	1688	2326	73.6	70.4	76.8
Percent of caregivers who think that it is more important for boys to go to school than girls	302	1226	23.4	18.6	28.2
Attitudes about child punishment					
Percent of caregivers who agree that harsh physical punishment is an appropriate means of discipline or control in the home or school*	187	1233	15.7	10.9	20.5
Caregivers' psychosocial wellbeing					
Percent of caregivers who are "thriving" according to Cantril's ladder – a measure of life evaluation	43	1230	4.0	1.7	6.4
Percent of caregivers who expect that life will be better in one year	500	902	55.6	45.2	66.0
Household economic wellbeing and resilience					
Percent of households able to access money to pay for unexpected household expenses*	235	538	46.3	38.2	54.3

Findings illuminate beneficiary population needs and program gaps and should be interpreted as a baseline situation analysis. The results from this first round of data collection also will serve as a reference for tracking changes over time in the next round of data collection, planned for 2019.

1. BACKGROUND

1.1 The Plight of Orphans and Vulnerable Children in Mozambique

Mozambique is a difficult place to be a child. The country was ranked 181 out of 188 on the 2016 Human Development Report (UNDP, 2016), and the 2017 End of Childhood Index put Mozambique at 160 out of 172 countries, driven by an extremely high under-five mortality rate (78.5 per 1,000 live births) and high malnutrition (Save the Children, 2017). Forty-three percent of children under five years are chronically malnourished (MISAU, INE, ICFI, 2011), and 64 percent are anemic (MISAU, INE, ICF, 2015). Three-quarters of primary school-age children attend school, but only one-quarter attend secondary school (MISAU, INE, ICF, 2015). Even though 80 percent of children have had their births registered, only 38 percent have an actual certificate at hand (MISAU, INE, ICF, 2015). Young girls face additional risks related to early marriage and childbearing: 46 percent of girls under 18 years have a living child or are pregnant (MISAU, INE, ICF, 2015), which contributes to a birth rate of 143 births per 1,000 women ages 15–19 (World Bank, 2014).

Mozambique is also facing a mounting HIV crisis: 13 percent of men and women ages 15-49 are living with HIV, *up* from 11.5 percent in 2011 (MISAU, INE, ICF, 2015). Although the rate of mother-to-child transmission has fallen, bringing down the incidence of infection among children ages 0-14 years, HIV prevalence among adolescents is still high. Over 6 percent of girls and nearly 2 percent of boys ages 15-19 years are living with HIV (MISAU, INE, ICF, 2015).

The long-term effects of HIV and other causes of mortality among adults have left behind an orphan crisis. Eleven percent of children in Mozambique are orphaned, having lost one or both parents (MISAU, INE, ICF, 2015). It is estimated that 800,000 of Mozambique's orphans have been orphaned due to AIDS (Brown & Winberg, 2013).

The Government of Mozambique has launched a number of policies and strategies to improve the lives of children in Mozambique and mitigate the impact of the HIV epidemic on children and families. The National Action Plan for Children II (PNAC 2013–2019), the National Early Childhood Development Strategy (DICIPE 2012–2021), the National Strategic Plan Against HIV/AIDS (PEN IV, 2016–2020), the National Strategy for Basic Social Security (ENSSB 2015–2019), and the government's overarching Five-Year Plan (*Plano Quinquenal* 2015–2019) provide guidance on strengthening social services for continued improvements in family welfare.

Despite government commitment, national funding is inadequate to meet targets. Among other donors, the U.S. Government, through PEPFAR, is providing financial support to Mozambique to help

address the gap. The U.S. Government has two flagship programs for orphans and vulnerable children, both run through the United States Agency for International Development (USAID): COVida and Project Força à Comunidade e às Crianças (Project FCC).

This report pertains to the COVida project.

1.2 The COVida Project

COVida is a five-year (2016-2021) USAID-funded project implemented by FHI360 in partnership with Palladium, World Vision, CARE, Path, and N'weti. The goal of COVida is to improve the health, nutritional status, and well-being of OVC living in PEPFAR-defined priority districts for epidemic control. The project has four key objectives:

- Increase the utilization of quality social, health, and nutritional services among the children and caregivers within the target OVC households.
- Reduce the economic vulnerability of OVC households so they can better provide and plan for the essential needs of the children in their care.
- Increase the capacity of families and communities to better provide early childhood development services that promote healthy, nurturing, engaging, and safe environments for vulnerable children under the age of five.
- Increase the capacity of district government and communities to respond to and manage cases for vulnerable families and children.

The project supports roughly 300,000 OVC and caregivers per year to access high-quality, comprehensive, compassionate services nationally. Project activities include strengthening the capacity of networks of community-focused providers to initiate and retain clients in HIV and other care, and refer them for onward services; strengthening village savings and loan groups to improve households' access to financial products; and providing early childhood stimulation and nutrition-focused activities.

2. EVALUATION PURPOSE AND RATIONALE

The evaluation has three objectives:

1. To provide baseline information on the status of the COVida beneficiary population to enable informed program planning.
2. To assess the impacts of COVida programming on key measures of beneficiary well-being over time.
3. To fulfill project reporting requirements.

Globally, the United States (U.S.) Government, through the President's Emergency Plan for AIDS Relief (PEPFAR), has invested considerable resources in orphan and vulnerable children (OVC) programs but has not systematically studied the effect of these programs on the well-being of beneficiary OVC and households (Sherr & Zoll, 2011). To fill this gap, in 2014 PEPFAR introduced a new global reporting requirement for monitoring the outcomes of its OVC programs, the Monitoring, Evaluation, and Reporting (MER) OVC Essential Survey Indicator(s) (ESI). The objective is to measure and track child and household well-being using nine indicators and a standard methodology across projects and countries. The nine indicators are presented in Box 1.

The nine indicators, selected by global PEPFAR OVC program and strategic information leaders, reflect internationally accepted developmental milestones and the ways OVC programs gain from and contribute to broader HIV and child protection responses (MEASURE Evaluation, 2014). PEPFAR requires that OVC MER indicators be

Box 1: PEPFAR MER essential survey indicators for OVC programs

- Percent of children whose primary caregiver knows the child's HIV status
- Percent of children 6-59 months who are undernourished
- Percent of children too sick to participate in daily activities
- Percent of children who have a birth certificate
- Percent of children regularly attending school
- Percent of children who progressed in school during the last year
- Percent of children <5 years of age who recently engaged in stimulating activities with any household member over 15 years
- Percent of caregivers who agree that harsh physical punishment is an appropriate means of discipline or control in the home or school
- Percent of households able to access money to pay for unexpected household expenses

collected at two points, two years apart, to track progress over time.

This is a three-year evaluation with two rounds of data collection. The **primary research question**, on which this study is statistically powered, is:

What is the status of beneficiaries over time, with respect to various measure of well-being, including the PEPFAR MER essential survey indicators?

Baseline data were collected in 2017 and endline data collection is planned for 2019. This report shares key findings from the first round of data collection.

3. METHODS

We surveyed a cross-sectional sample of active beneficiary households of COVida by using two-stage cluster sampling. This will be repeated at endline.

3.1 Participants and Setting

The survey team conducted interviews with the primary caregivers of the children residing in the selected households. Female and male caregivers of all ages were eligible for the survey. We asked caregivers questions about themselves, the household, and the children under their care. All children ages 0–17 years (at their last birthday) who regularly slept in the household were considered eligible for the survey, even if they were not present during the day of the survey.¹

Exclusion criteria were failure to provide consent, intoxicated, or otherwise indisposed mentally to provide informed consent.

The household survey was conducted in communities that were randomly selected from all provinces in Mozambique.

3.2 Sample Size and Sampling

To detect an increase of 10 percent change between baseline and endline using a cluster design, we calculated a sample size of 1423 households (alpha = 0.05, two-sided, power = 0.80, design effect = 2; we assumed that only 60 percent of households would have a child ages 0–4; and 10 percent nonresponse). The final sample size was 1440 households.

To contain costs, we used two-stage cluster sampling. We decided on a 48 cluster by 30 households/cluster design. The sampling frame included all “active” beneficiary households of COVida, meaning households that had received project services or had been newly registered to receive them in the three months before the survey. The survey team selected 48 primary sampling units (*posto administrativos*) based on probability proportional to size sampling, drawn from information in the COVida beneficiary registers as of June 30, 2017. Eleven clusters were selected multiple times (seven clusters were chosen twice, three clusters were chosen three times, and one cluster was chosen four times). In the end this meant we sampled from 32 different clusters (*posto administrativos*).

¹ Interviewers did not include children who were present on the day of the survey but were not regular household members (i.e., those who did not routinely sleep in the household).

The team selected the secondary sampling units from updated lists of beneficiaries rather than from project registries, which can be out of date. To obtain the new lists in the 32 clusters, data collectors interviewed all current case workers to get accurate information on all active beneficiary households. They also consulted project records. We listed 17 279 beneficiary households across the 32 clusters. From these lists, we randomly selected households in each cluster (30 households in 21 clusters, 60 households in 7 clusters, 90 households in 3 clusters, and 120 households in 1 cluster), using systematic random sampling.

3.3 Outcome Measures

3.3.1 MER essential survey indicators

- % of households able to access money to pay for unexpected expenses
- % who agree that harsh physical punishment is an appropriate means of discipline or control in the home or school
- % of children ages 6-59 months who are undernourished
- % of children ages 0-4 years who recently engaged in stimulating activities with any household member over 15 years of age
- % of children whose primary caregiver knows the child's HIV status
- % of children too sick to participate in daily activities
- % of children who have a birth certificate
- % of children ages 5-17 years who are regularly attending school
- % of children ages 5-17 years who progressed in school during the last year

3.3.2 Other caregiver-level outcome measures

- % of households that have suffered a major economic shock in the last 12 months
- % of caregivers who believe that it is important for girls/boys to complete primary school
- % of caregivers who believe that it is important for girls/boys to complete secondary school
- % of caregivers who believe it is more important for boys to complete primary/secondary school than girls
- % of caregivers who believe that early marriage (before age 18) should be stopped
- % of caregivers who know the age at which a child can see, can hear
- % of caregivers who can name at least two ways to prevent malnutrition
- % of caregivers who can list at least three child rights

- % of caregivers who report a violent response to different scenarios: child spills water, child does not help with a chore, child hits another child
- % of caregivers who feel hopeful about their future
- % of caregivers who report a positive life evaluation
- % of caregivers who have ever been tested for HIV in last 12 months
- % of caregivers who report receiving various services from COVida

3.3.3. Other child-level indicators

- % of children ages 3-4 years who are attending an organized or early childhood education program, such as at a private or government facility, including kindergarten or community child care
- % of children who have been exposed to various forms of discipline in the last month, as reported by the caregiver
- % of children who report receiving various services from COVida

We also collected additional indicators among children ages 0-4 years. These are included in Appendix 1.

3.4 Data Collection

The survey team conducted interviews with caregivers using a questionnaire from the MEASURE Evaluation OVC survey tools (<https://www.measureevaluation.org/resources/publications/ms-14-90>), adapted to include all outcomes of interest. The questionnaire included questions about the caregiver and children ages 0–17 in the household (directed at the caregiver).

Data collection was conducted by a trained team comprising two field coordinators, seven field supervisors, and forty-five interviewers set up in seven field teams that worked simultaneously (three in the Southern region, three in the Centre, region and two in the Northern region). The data collection team was led by a field manager who was present for the whole data collection process in the field. Data collection took place from August 31–October 1, 2017.

At the cluster level, the data collection team worked with COVida local implementing partners to list, randomly sample, and locate the selected households using information from the implementing partners' household listing, e.g., village, name of the *activista* assigned by the local partner to support the household, the caregiver's name, and telephone contacts. In most instances, the *activista* or other member of the local implementing partner organization accompanied the data

collection team to the household and facilitated introductions. This person then left prior to the start of the interview.

Field interviewers sought informed consent from the caregiver. Adult caregivers (i.e., those 18 years and above) were asked to consent to their own participation and to the participation of children in the household ages 6-59 months (for the mid-upper arm circumference [MUAC] assessment). Caregivers who were at least 16 years old and married (and thus by definition “emancipated” per Mozambican law) were considered adults for the purposes of this study and able to provide informed consent for their and their children’s participation. Unmarried caregivers under age 18 and caregivers under age 16 were excluded from the study. Consent to participate was documented in written form.

Field interviewers captured responses electronically on password-protected Android tablets that had been pre-programmed with the questionnaire using Kobo Toolbox. The electronic data capture tool mirrored the paper questionnaire and presented one question per screen. Instructions were included in the tool to guide interviewers and facilitate interview flow. Skip logic was built-in and error messages and caution notices were triggered when faulty data were entered to alert interviewers to correct problems. Caregivers were interviewed in a private location out of earshot of others, including children and other family members. MUAC measurements on children ages 6-59 months were obtained within the presence of the caregiver. A minimum of three attempts on two different days was made to conduct interviews with caregivers who were temporarily absent from the household at the time of the field interviewer visit.

The field team met after each day’s work to review experiences of the day and plan for the following day. Field supervisors reviewed the captured data daily. Once the questionnaire was deemed complete, they transmitted the data using mobile Internet connection to the database in the cloud-based server.

The data manager ran daily checks based on a predesigned data cleaning script in Stata 14 that included checks for structure, uniqueness, and external consistency of key identifiers; completeness of data; acceptable data; and unexpected data. An inconsistency report from the database was then generated and shared with the field team every two days. Field teams took immediate action/correction (e.g. re-interview, re-visit to households for confirmation, etc.) to ensure that high quality data were collected.

3.5 Data Processing and Analysis

Once data collection was completed, additional checks were run on the full data file. Minimal edits were required as a result of the real-time data cleaning that took place as the data were being collected. Once all these checks were performed, a clean version of the data was saved for the analysis. The analytical files included data dictionaries with variable labels, value labels, and other standard specifications. Detailed metadata reports were also generated using Nesstar software. Missing data were minimal; thus, data imputation was not performed.

Although we designed our sampling approach to be self-weighting by using probability proportional to size sampling to select clusters and then randomly selecting a fixed number of households in each cluster, we applied survey weights in analysis. This procedure was necessary due to differences in the number of households in selected clusters that we expected based on the project registries and the household listings conducted during data collection. In calculating the final sampling weights, we considered weights for both probability of selection and probability for nonresponse.

The team performed data analysis using SPSS 23 with validation using SAS 9.4. We derived the MER essential survey indicators as specified in the MEASURE Evaluation guidance document, “Collecting PEPFAR Essential Survey Indicators: A Supplement to the OVC Survey Tools” (MEASURE Evaluation, 2014). For these and all other indicators, we calculated indicator estimates and confidence intervals (95%) for the indicator estimates incorporating the sample design.

Statistical comparisons across categorical variables giving two by two tables, such as sex and location, used a Wald chi-square test. For tests across categorical variables with more than two levels (such as age groups), an adjusted Wald F-test was used. These test for independence of the row and column variables based on the differences between the observed (weighted) cell frequencies and the expected frequencies, considering the complex survey design. There were no male caregivers <18 years of age, making statistical comparisons impossible across all caregiver age groups due to one cell having a zero value. Therefore, to accommodate comparisons across caregiver age group, the <18 category was excluded in statistical comparisons (though the percentages are shown in the tables). In other cases where zero cell sizes were an issue, categories were logically combined to accommodate comparisons.

3.6 Ethics Review and Compliance

Institutional Review Board (IRB) approval was obtained from the *Comitê Nacional de Bioética para a Saúde* in Mozambique and Health Media Lab IRB in the United States. All study activities adhered strictly to U.S. and international research ethics guidelines, including 45CFR46 and CIOMS.

4. RESULTS

4.1 Responses Rates

A total of 17,279 project beneficiary households were listed with the COVida local implementing partners in the 32 survey clusters. Based on this list, a sample of 1,440 households was randomly selected to take part in the baseline survey, of which we were able to interview 1,250 households (86.8% of the sample). It was not possible to interview 190 households (13.2% of the sample). The main reasons for nonresponse were that the caregiver was away for an extended period of time (93 households) or the household could not be located by the implementing partner (88 households). Five interviewed caregivers from COVida beneficiary households no longer had a child under their care at the date of interview, so they were considered ineligible for the survey (0.3% of the sample). Only four caregivers refused to participate in the survey (0.3% of the sample). This information and additional details are presented in Tables 1 and 2.

Table 3 Household response rates

Category	Number
1. Households served by the COVida program (based on the project listing)	17 279
2. Households in the survey sample (selected for interview from the project listing)	1 440
3. Sample households (or caregivers) unknown to the local implementing partner, assigned an <i>activista</i> , or local guide	88
4. Sample households that did not have a child under their care at the date of the interview	5
5. Caregivers in sample households reported to be temporarily away from the household for extended period	93
6. Caregivers who refused an interview	4
7. Total number of sample households where an interview was not conducted (household nonresponse)	190
Survey household response rate	86.8% (1,250/1,440)

Table 4 Questionnaire components completed and other sample information

Sample information	Number
Number of "Caregiver" components completed	1,250
Number of "Child aged 0–4 years" components completed	1,033
Number of "Child aged 5–17 years" components completed	3,458
Total number of child components completed	4,491
Number of eligible children in the household (listed by the caregiver)	4,491
Percent of child components completed among eligible children in the household	100%
Average number of completed child components per household	3.6

4.2 Household Characteristics and Outcomes

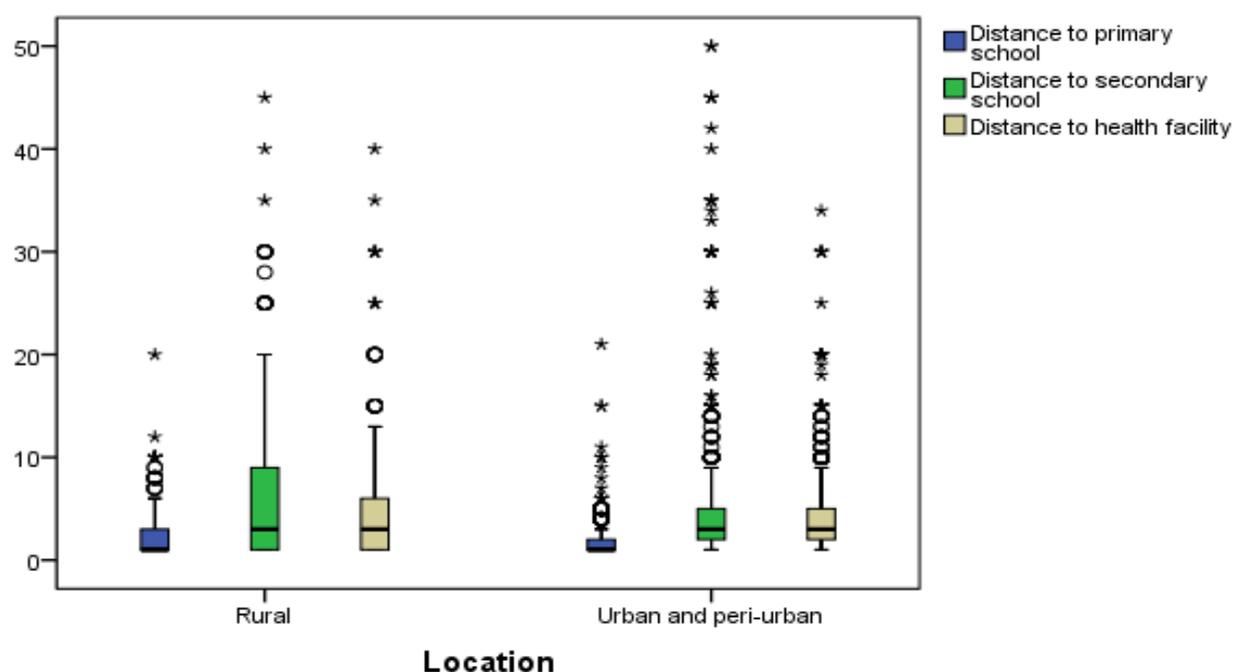
4.2.1 Location

The location of surveyed households was almost evenly distributed among rural and urban areas. Around 52.4 percent of the surveyed households were in urban or peri-urban areas, while the remaining 47.6 percent were rural.

4.2.2 Household proximity to services

Caregivers were asked for the approximate distances in kilometers between their homes and basic services (primary school, secondary school, and health facility). Data are highly skewed for all three services: See Figure 1.

Figure 1 Boxplots for distance distribution from household to services



Descriptive statistics are reported in Table 3.

Table 3 Household distance (kilometers) from basic services

	Rural			Urban and peri-urban			All		
	Mean	Median	Range	Mean	Median	Range	Mean	Median	Range
To primary school	2.2	1.0	1.0-2.0	1.8	1.0	1.0-21.0	2.0	1.0	1.0-21.0
To secondary school	6.8	4.0	1.0-50.0	4.6	3.0	1.0-50.0	5.9	3.0	1.0-50.0
To health facility	5.3	3.0	1.0-40.0	3.6	3.0	1.0-34.0	4.6	3.0	1.0-40.0

The median distance between households surveyed and the local primary school was 1 kilometer.

The median distance to the local secondary school was 3 kilometers, and the median distance to a health facility was 3 kilometers.

4.2.3 Household experience of shocks

Caregivers were asked whether their household had experienced various types of economic shocks in the 12 months prior to survey. The results are presented in Table 4.

Table 4 Caregivers reports of economic shocks over 12 months prior to survey

Type of shock	Rural					Urban and peri-urban					All				
	n	N	%	LL	UL	n	N	%	LL	UL	n	N	%	LL	UL
Lower crop yields due to drought, flood, crop disease, or pests	263	496	52.2	37.8	66.6	300	746	37.2	22.2	52.1	563	1242	44.3	34.2	54.4
Business failure	160	488	31.5	20.4	42.5	245	737	33.5	27.3	39.8	405	1225	32.6	26.8	38.4
Loss of livestock or poultry to disease or pests	137	494	26.1	14.7	37.5	115	739	14.5	7.0	22.0	252	1233	20.0	13.4	26.6
Significant fall in sales price of crops, livestock, or poultry	128	486	24.5	16.8	32.2	173	737	22.4	16.6	28.2	301	1223	23.4	18.9	27.8
Significant rise in food prices	404	485	82.4	77.0	87.9	573	748	77.1	70.8	83.5	977	1233	79.6	75.3	83.9
Salary loss (household member died, lost job, was too ill to work, was not paid)	107	494	21.4	14.4	28.5	160	741	20.9	16.8	25.0	267	1235	21.1	17.4	24.9
Death of a household member	119	493	23.1	16.2	30.0	208	749	27.2	22.2	32.2	327	1242	25.3	21.3	29.3
Theft	85	497	15.5	12.1	18.8	169	751	22.4	19.1	25.7	254	1248	19.1	16.2	22.0
Damage to dwelling	184	498	35.8	27.8	43.7	289	752	37.6	30.5	44.6	473	1250	36.7	31.7	41.7
End of regular assistance, aid, or remittances from outside household	47	477	11.1	6.5	15.8	83	735	11.1	6.4	15.8	130	1212	11.1	8.0	14.2
Suffered any economic shock	473	498	94.6	92.9	96.3	697	752	93.2	90.3	96.1	1170	1250	93.9	92.2	95.6
Suffered 2 or more shocks	405	498	81.3	74.4	88.2	562	752	73.8	68.1	79.6	967	1250	77.4	72.8	81.9

Economic shocks were commonly reported among the surveyed households. Almost all caregivers (93.9%) reported experiencing at least one economic shock in the past 12 months, and more than three quarters (77.4 %) reported to have suffered more than two economic shocks in the 12 months prior to survey. The level of exposure to at least one economic shock did not vary much by rural or urban location—94.6 percent of rural households vs. 93.2 percent of urban households experienced at least one economic shock. However, rural households were more likely to experience two or more shocks (81.3%) as compared to urban households (73.8%) ($p=0.0923$). The most common economic shock reported was a rise of food prices (79.6%), followed by lower crop yields (44.5%). One-quarter (25.3%) of all households had experienced the death of a household member at some point in the 12 months prior to survey.

4.2.4 Participation

COVida services received

Caregivers were asked about the services received from the COVida local implementing partner in their community. They were also asked if they had received these services within the 30 days preceding the survey. The results are presented in Table 5.

Table 5 Caregivers reports of their OVC project participation or receipt of COVida services

	Rural					Urban and peri-urban					All				
	n	N	%	LL	UL	n	N	%	LL	UL	n	N	%	LL	UL
Ever received a household visit	430	495	87.8	82.3	93.3	610	749	83.5	78.2	88.8	1040	1244	85.5	81.8	89.3
Received a household visit in last 30 days	321	423	74.1	63.7	84.4	491	610	81.3	75.7	86.9	812	1033	77.8	72.3	83.3
Ever received support to access a poverty certificate	36	478	6.3	3.2	9.4	31	751	4.5	2.7	6.3	67	1229	5.3	3.7	7.0
Ever received parenting guidance	172	492	36.5	25.3	47.7	273	749	36.8	28.3	45.2	445	1241	36.6	30.2	43.1
How to prevent illness	137	172	83.2	75.1	91.3	224	273	81.1	74.1	88.0	361	445	82.1	77.0	87.2
When to take a child to health facility	72	172	42.4	33.7	51.0	138	273	51.1	42.7	59.5	210	445	47.0	40.8	53.2
How to check a child's development	37	172	24.7	14.7	34.7	100	273	37.4	26.8	48.0	137	445	31.4	24.3	38.5
How to prevent accidents	13	172	7.5	2.7	12.2	48	273	18.6	13.0	24.1	61	445	13.3	9.2	17.5
How to play with a child	45	172	26.5	17.8	35.2	75	273	27.1	19.4	34.8	120	445	26.8	21.4	32.3
How to discipline a child	54	172	36.7	11.0	62.4	110	273	40.4	30.6	50.4	164	445	38.7	26.5	51.0
How to help a child who is sad	20	172	13.1	7.4	18.8	42	273	13.9	7.9	20.0	62	445	13.5	9.6	17.4
Other	18	172	10.0	3.0	17.0	26	273	9.4	4.3	14.4	44	445	9.7	5.7	13.7
Ever received nutritional guidance	216	491	47.3	34.2	60.4	277	750	36.9	31.6	42.2	493	1241	41.8	35.1	48.6
Ever participated in a community dialogue	79	493	18.0	10.2	25.8	130	751	17.8	13.2	22.4	209	1244	17.9	13.8	22.0
HIV prevention	38	79	46.1	38.3	53.8	65	130	50.1	39.4	60.8	103	209	48.2	41.8	54.6
HIV care & treatment	26	79	31.3	22.3	40.3	50	130	37.9	29.9	49.0	76	209	34.8	27.7	41.8
Food & nutrition	32	79	45.3	26.6	64.1	49	130	37.4	25.8	49.1	81	209	41.2	30.9	51.4
Gender & gender-based violence	11	79	15.4	3.1	27.7	27	130	19.0	10.1	27.9	38	209	17.3	10.3	24.3
Child rights	14	79	22.0	12.8	31.2	31	130	23.1	11.0	35.3	45	209	22.6	15.3	29.9

Early marriage	10	79	16.6	6.2	27.0	38	130	29.1	17.6	40.6	48	209	23.1	15.5	30.8
Birth registration	10	79	13.0	6.2	19.7	37	130	27.4	16.6	38.2	47	209	20.5	14.1	27.0
Parenting	12	79	19.1	6.6	31.5	29	130	23.0	8.5	37.5	41	209	21.2	12.1	30.2
School retention and progression	10	79	18.7	0.0	39.0	17	130	12.8	5.5	20.0	27	209	15.6	5.7	25.5
Other	18	79	20.3	4.5	36.0	18	130	14.0	7.4	20.6	36	209	17.0	9.2	24.8
Ever received a referral to a health facility	150	496	31.0	23.3	38.6	149	751	21.5	13.9	29.0	299	1247	26.0	20.5	31.4
HIV testing	113	150	72.0	61.5	82.5	89	149	63.9	50.4	77.3	202	299	68.5	60.8	76.2
HIV care & treatment	39	150	30.0	14.8	45.2	19	149	12.1	5.4	18.8	58	299	22.2	12.4	32.1
Support after gender-based violence	1	150	0.5	0.0	1.6	7	149	4.1	0.0	8.2	8	299	2.0	0.1	4.0
Other	22	150	15.1	1.0	29.1	48	149	28.2	11.9	44.5	70	299	20.8	10.6	31.0

Household visits were the most common service received (85.5%), with more than three-quarters (77.8%) of caregivers reporting that they had received a household visit in the 30 days preceding the survey. About 40 percent of participants reported having received nutritional guidance (41.8%) and/or parenting guidance (36.6%). One-quarter of caregivers reported receiving a referral to health services (of those reporting services, 68.5% reported services for HIV testing and 22.2% for HIV care and treatment). Less than one-fifth (17.9%) reported participation in a community dialogue, and only 5.3 percent reported receiving support to access a poverty certificate. We detected some differences in receipt of some services by household location; however, these differences were not statistically significant.

Caregivers were asked about services received by the children under their care, including referrals to health services, support to access a birth certificate, referrals to pre-school, educational support, and MUAC measurements conducted. Data are presented in Table 6.

Table 6 Services received by children

Activity	All children									
	n	N	%	95% CI						
				LL	UL					
Referral to a health service	637	4465	14.5	10.1	89.9					
Support to access a birth certificate	342	4476	7.1	4.9	9.3					
Referral to pre-school	13	492	3.5	0.9	6.1					
Educational support	122	3454	3.7	2.1	5.4					
MUAC measurement	354	962	38.6	30.3	46.9					
Activity	Female children					Male children				
	n	N	%	95% CI		n	N	%	95% CI	
				LL	UL				LL	UL
Referral to a health service	338	2213	15.8	11.0	20.6	299	2252	13.1	9.0	17.3
Support to access a birth certificate	158	2218	6.3	4.2	8.4	184	2258	7.8	5.2	10.4
Referral to pre-school	8	267	3.6	0.9	6.3	5	225	3.4	0.0	6.7
Educational support	58	1712	3.7	2.1	5.2	64	1742	3.8	1.5	6.0
MUAC measurement	170	475	37.5	27.2	47.8	184	487	39.8	32.6	46.9

A MUAC measurement (38.6%) was the most common service reportedly received by children, followed by a referral to a health service (14.5%) and support to access a birth certificate (7.1%). Educational support and referrals to pre-school were the least commonly reported services received. Caregivers were slightly more likely to report a referral to a health service for a female child compared to a male child (females 15.8% vs. males 13.1%, $p=0.0113$). We did not detect any other differences by sex across other services (support to access a birth certificate: $p=0.0865$, referral to pre-school: $p=0.8580$, educational support: $p=0.9353$, MUAC measurement: $p=0.4717$).

Participation in other services

Caregivers were asked whether they or any household member had ever participated in a savings group, and whether their household had received/receives cash transfers from the Government of Mozambique. The results are presented in Table 7.

Table 7 Caregivers' reports of their household's participation or receipt of other services

Participation or receipt of services	Rural					Urban and peri-urban					All				
	n	N	%	LL	UL	n	N	%	LL	UL	n	N	%	LL	UL
Any household member has ever participated in a savings group	70	497	14.0	11.2	16.8	112	749	15.6	10.2	20.9	182	1246	14.8	11.9	17.7
Any household member currently participates in a savings group	58	497	11.4	8.6	14.2	82	749	11.5	7.7	15.2	140	1246	11.4	9.2	13.7
Household has at some point received cash transfers (money from government)	30	495	6.3	3.5	9.1	33	752	4.9	2.9	6.9	63	1247	5.6	3.9	7.2
Household has received cash transfers (money from the government) in the last 12 months before the survey	17	495	3.7	1.6	5.8	23	751	3.2	1.9	4.6	40	1246	3.4	2.3	4.6

Only 14.8 percent of caregivers reported that they or a member of household had ever participated in a saving group; only 11.4 percent were currently participating in a savings group. We did not detect any differences by location (ever: $p=0.5772$; currently: $p=0.9765$).

Only 5.6 percent of caregivers reported having ever received a cash transfer (3.4% in the last 12 months), with no differences by location (ever: $p=0.3957$, last 12 months: $p=0.7054$).

4.2.5 Household economic well-being and resilience

Percent of households able to access money to pay for unexpected household expenses (MER ESI HW.2)

Caregivers were asked if their household had incurred any unexpected expenses in the 12 months prior to the survey. Just under half (44.5%) responded affirmatively. These caregivers were then asked if they were able to access money to pay for that expense. The latter results are presented in Table 8.

Table 8 Households able to access money to pay for unexpected household expenses

Caregiver sex	n	N	%	95% CI	
				LL	UL
Female	210	481	46.7	37.9	55.6
Male	25	57	42.1	26.6	57.5
Location of household	n	N	%	95% CI	
				LL	UL
Rural	122	238	54.3	42.4	66.1
Urban or peri-urban	113	300	37.9	29.6	46.2
All	235	538	46.3	38.2	54.3

Of caregivers who reported that their household experienced an unexpected household expense in the last 12 months, such as a house repair or urgent medical treatment, about half (46.3%) reported that their households were able to pay for the unexpected expenses. Caregivers from rural areas were more likely to report that their household was able to pay for the unexpected expenses, compared to their urban counterparts (54.3% of rural households vs. 37.9% of urban households, $p=0.0299$). We did not detect a difference by sex ($p=0.6118$).

4.3 Caregiver Characteristics and Outcomes

4.3.1 Background characteristics of the respondents

The distribution of caregivers that took part of the survey, by age and sex, is presented in Table 9.

Table 9 Caregiver respondents by age and sex

Caregiver age group	Female		Male		All caregivers		% who are female
	n	%	n	%	N	%	
<18 years	5	0.5	0	-	5	0.4	100.0
18-30 years	258	22.7	36	21.0	294	22.5	89.1
31-50 years	577	53.5	65	42.1	642	52.2	90.6
51+ years	251	23.3	58	36.9	309	24.9	82.8
All ages	1091	100.0	159	100.0	1250	100.0	88.4

The majority of the 1250 caregivers interviewed were female (88.4%), and about half (52.2%) were aged between 31 and 50 years. The average age of female caregivers was lower than that of male caregivers (45.7 years for male caregivers vs. 41.3 years for female caregivers). The educational and marital status of respondents are presented in Table 10.

Table 10 Characteristics of caregivers in the survey

Characteristic	Females (N=1091)		Males (N=159)		All (N=1250)	
	n	%	n	%	n	%
Education						
No schooling	376	34.5	32	18.8	408	32.7
Highest level attended is primary education	582	52.7	95	57.7	677	53.3
Highest level attended is secondary education	133	12.7	32	23.4	165	14.0
Attended higher education	0	-	0	-	0	-
Marital Status						
Married or cohabiting (common law partner)	410	38.4	116	72.4	526	42.4
Never been married	104	9.5	10	5.8	114	9.1
Divorced	126	11.2	6	3.0	132	10.3
Widowed	449	40.9	27	18.8	476	38.3

One-third (32.7%) of caregivers never attended school. Just over half of all respondents had some primary education (53.3%) and 14 percent had some secondary education. Ever school attendance was significantly higher among male compared to female caregivers. The majority of caregivers were either married or cohabiting (42.4%) or widowed (38.3%). The marital profile is significantly different between males and females. In general, a minority of caregivers have never been married (9.1%). Of stark contrast is that more male caregivers are currently married (72.4%) than females (39.4%), and fewer males are widowed (18.8%) than females (40.9%). The mean number of children under the care

of surveyed caregivers was 3.6 (median=2.9), with a range of 1-15. There were no differences by caregiver sex or the location of the household.

4.3.2 HIV testing

Caregivers were asked whether they had ever tested for HIV, and if yes, whether they had tested in the 12 months prior to survey and received the results of their (last) HIV test. Data are presented in Table 11.

Table 1 Caregivers that have been tested for HIV (self-report)

	n	N	%	95% CI	
				LL	UL
Ever	907	1,245	73.8	67.6	80.1
In the last 12 months	729	907	81.2	77.4	85.0
Received results of last test	843	903	93.8	91.5	96.1

Around three-quarters (73.8%) of caregivers reported that they had been tested for HIV, and of these, four out of five (81.2%) reported testing in the 12 months prior to survey (60.0% of all caregivers surveyed). Over 90 percent (93.8%) of those that ever tested reported having received their test results. Table 12 presents the percent of caregivers who have been tested and have received their results by caregiver characteristics.

Table 2 Caregivers that have been tested for HIV and have received the results of their last test (self-report)

Caregiver sex	n	N	%	95% CI	
				LL	UL
Female caregivers	757	1087	70.6	64.4	76.8
Male caregivers	86	158	56.2	43.4	68.9
Caregiver age group	n	N	%	95% CI	
<18 years	4	5	74.7	-	-
18-30 years	226	293	79.2	72.0	86.5
31-50 years	456	641	72.2	64.6	79.8
51+ years	157	306	52.6	43.0	62.1
Location of household	n	N	%	95% CI	
Rural	373	497	75.8	66.6	85.1
Urban or peri-urban	470	748	62.7	53.4	71.9
All	843	1245	68.9	62.1	75.8

Two-thirds (68.9%) of caregivers reported a previous HIV test and having received the result of their last test. Differences in percentage of caregivers that have been tested for HIV and received the results of their last test were significant across caregiver sex, age group, and location. Female caregivers were

more likely to report having tested and received results for HIV than males (70.6% of females vs. 56.2% of males, $p=0.0111$). Caregivers living in urban areas were less likely to report having tested and received results for HIV than those in rural areas (75.8% of rural caregivers vs. 62.7% of urban caregivers, $p=0.0456$). And older caregivers (aged 51+) were less likely to report having tested and received results for HIV than younger caregivers ($p<0.001$).

4.3.3 Psychosocial well-being

Caregivers were asked three questions about their well-being in the past 12 months. First, respondents were asked to classify their life on a scale from 0 to 10, using a pictorial of a ladder as a point of reference (Cantril, 1965). The question asked: "Suppose we say that the top of the ladder represents the best possible life for you and the bottom of the ladder represents the worst possible life for you. On which step of the ladder do you feel you stand at this time?" Responses to this question are grouped as follows: 0-4=suffering, 5-6=struggling, 7-10=thriving. The distribution of responses across these categories is presented in Table 13.

Table 3 Caregivers classified as suffering, struggling, and thriving, per Cantril's ladder

Category	n	N	%	95% CI	
				LL	UL
Suffering (0-4)	1082	1230	86.6	82.1	91.0
Struggling (5-6)	105	1230	9.4	6.3	12.6
Thriving (7-10)	43	1230	4.0	1.7	6.4

Most caregivers reported Cantril ladder scores that translated to suffering (86.6%), followed by struggling (9.4%), and thriving (4.0%). Table 14 displays the proportion of caregivers classified as suffering by caregiver characteristics.

Table 4 Caregivers classified as suffering per Cantril's ladder

Caregiver sex	n	N	%	95% CI	
				LL	UL
Female	947	1074	86.8	82.7	90.9
Male	135	156	84.5	74.5	94.5
Caregiver age group	n	N	%	95% CI	
				LL	UL
<18 years	3	5	-	--	--
18-30 years	256	289	87.4	81.3	93.4
31-50 years	554	634	85.5	80.3	90.6
51+ years	269	302	88.5	81.3	95.7
Location of household	n	N	%	95% CI	
				LL	UL
Rural	425	493	85.2	78.6	91.8
Urban or peri-urban	657	737	87.8	81.2	94.5
All	1082	1230	86.6	82.1	91.0

There were no statistically significant differences found by caregiver sex ($p=0.6314$), age groups above 18 years ($p=0.5138$), or location ($p=0.5455$) in the percent of caregivers reporting that they felt their life was the worst possible life for them (corresponding to a suffering score of 0-4 on Cantril's ladder).

Respondents were then asked: *Compared to this time last year, would you say that your life has improved, stayed more or less the same, or worsened, overall?* The distribution of responses across these categories is presented in Table 15.

Table 5 Caregivers reporting that their life has improved, stayed the same, or worsened since last year

Category	n	N	%	95% CI	
				LL	UL
Improved	151	1244	13.9	10.4	17.5
Stayed the same	572	1244	46.6	42.7	50.6
Worsened	521	1244	39.4	33.6	45.3

Just under half (46.6%) reported that life has stayed the same, with 13.9 percent noting that life has improved. Data on the proportion indicating that life had improved, by caregiver characteristics, are presented in Table 16.

Table 6 Caregivers who feel that life has improved compared to last year

Caregiver sex	N	N	%	95% CI	
				LL	UL
Female	130	1085	13.6	10.2	17.0
Male	21	159	16.0	7.8	24.2
Caregiver age group	n	N	%	95% CI	
				LL	UL
<18 years	1	5	25.3	-	-
18-30 years	43	293	15.7	9.2	22.2
31-50 years	79	640	15.1	10.5	19.8
51+ years	28	306	9.5	5.5	13.5
Location of household	n	N	%	95% CI	
				LL	UL
Rural	89	495	19.1	14.8	23.5
Urban or peri-urban	62	749	9.2	5.2	13.2
All	151	1244	13.9	10.4	17.5

Nearly 14 percent of caregivers expressed that their life has improved over the last year, with no differences detected by sex ($p=0.6314$) or age group ($p=0.0905$). People living in rural areas were twice as likely as urban dwellers to report that life had improved in the last year, a difference which is statistically significant (19.1% of rural caregivers vs. 9.2% of urban caregivers, $p=0.0079$).

Lastly, respondents were asked: *In one year from now, do you expect that your life will be better, will be more or less the same, or will be worse, overall?* The distribution of responses across these categories is presented in Table 17.

Table 7 Caregivers reporting that their lives will be better, the same, or worse, one year from now

Category	n	N	%	95% CI	
				LL	UL
Better	500	902	55.6	45.2	66.0
The same	273	902	31.1	23.6	38.6
Worse	129	902	13.3	8.4	18.3

*348 caregivers responded “don’t know” to this question.

The majority of caregivers expressed that their lives would be better in the future (55.6%), with 13.3 percent noting that they expected their lives to worsen. Data on those who expect that their life will improve, by caregiver characteristics, are presented in Table 18.

Table 8 Caregivers who expect that their life will be better in one year from now

Caregiver sex	n	N	%	95% CI	
				LL	UL
Female	445	783	56.7	46.2	67.1
Male	55	119	47.7	32.9	62.6
Caregiver age group	n	N	%	95% CI	
				LL	UL
<18 years	5	5	-	-	-
18-30 years	140	214	65.7	54.8	76.5
31-50 years	238	453	53.3	41.1	65.5
51+ years	117	230	50.1	39.1	61.1
Location of household	n	N	%	95% CI	
				LL	UL
Rural	271	397	65.3	49.8	80.8
Urban or peri-urban	229	505	45.3	30.9	59.6
All	500	902*	55.6	45.2	66.0

*348 caregivers responded “don’t know” to this question.

More than half of respondents (55.6%) indicated that they believed that their lives would be better in another year. Rural caregivers were more hopeful than urban caregivers (65.3% vs. 45.3%, respectively, $p=0.0287$).

4.3.4 Attitudes about schooling

Questions were posed to respondents on their opinions about the importance of completing primary and secondary education for both boys and girls. Most caregivers agreed that it was very important that both complete primary and secondary school (girls primary: 92.0%, girls secondary: 93.6%, boys primary: 94.4%, boys secondary: 95.2%). Caregivers were then asked whether they strongly agreed, agreed, disagreed, or strongly disagreed to the following statement: “It is more important that sons have education than daughters.” Overall data for this question are presented in Table 19 and Table 20 by caregiver characteristic, below.

Table 9 Caregivers who believe it is more important that sons have education than daughters

Category	n	N	%	95% CI	
				LL	UL
Strongly Agree	93	1226	7.4	5.6	9.2
Agree	209	1226	16.0	12.3	19.8
Disagree	579	1226	47.7	42.2	53.2
Strongly Disagree	345	1236	28.9	23.9	33.8

To compare caregiver opinions about sons' education being more important than daughters', we combined strongly agree and agree into one category (agree) and disagree and strongly disagree into another category (disagree). The former ("agree") combination shows that nearly one-quarter (23.4%) of caregivers expressed that it is more important for their sons to have an education than their daughters.

Table 10 Caregivers who agree or strongly agree that it is more important for their sons to have an education than their daughters

Caregiver sex	n	N	%	95% CI	
				LL	UL
Female	253	1069	22.8	18.5	27.1
Male	49	157	28.1	16.6	39.7
Caregiver age group	n	N	%	95% CI	
				LL	UL
<18 years	0	5	-	-	-
18-30 years	82	289	26.8	20.4	33.1
31-50 years	142	631	21.4	16.9	25.8
51+ years	78	301	25.2	17.7	32.8
Location of household	n	N	%	95% CI	
				LL	UL
Rural	110	489	22.1	14.9	29.2
Urban or peri-urban	192	737	24.7	17.5	31.8
All	302	1226	23.4	18.6	28.2

We did not detect differences in attitudes by caregiver sex, age group ($p=0.0671$) or location.

4.3.5 Attitudes and beliefs related to child protection

Percent of caregivers who agree that harsh physical punishment is an appropriate means of discipline or control in the home or school (MER ESI CW.14)

Caregivers were asked two questions on whether they agreed that harsh physical punishment is an appropriate means of child discipline or control at home or at school. Results show that the caregivers are more likely to agree with physical punishment as a means of discipline at school (13.8%) than at home (7.6%). Results are aggregated to create the indicator combining agreement with harsh physical punishment at school or at home (see Table 21).

Table 11 Caregivers who agree that harsh physical punishment is an appropriate means of discipline or control at home or at school

Caregiver age group	All caregivers				
	n	N	%	95% CI	
				LL	UL
<18 years	1	5	25.3	-	-
18-30 years	26	294	8.6	5.3	11.8
31-50 years	98	630	16.2	11.5	20.9
51+ years	62	304	20.8	12.3	29.4
All ages	187	1233	15.7	10.9	20.5

Caregiver age group	Female					Male				
	n	N	%	95% CI		n	N	%	95% CI	
				LL	UL				LL	UL
<18 years	1	5	25.3	-	-	-	-	-	-	-
18-30 years	23	258	8.6	5.1	12.1	3	36	8.3	0.0	17.9
31-50 years	95	565	17.4	12.2	22.6	3	65	5.0	0.0	10.7
51+ years	55	247	22.5	12.9	32.1	7	57	12.9	4.1	21.7
All ages	174	1075	16.6	11.4	21.8	13	158	8.6	4.5	12.7

Less than 16 percent (15.7%) of caregivers agreed that hitting or beating a child is an appropriate means of discipline or control at home or at school, with more female caregivers agreeing with physical punishment than male caregivers (16.6 vs. 8.6%, respectively, $p=0.0113$). Additionally, attitudes toward physical punishment vary by caregivers' age. Older caregivers were somewhat more likely to accept harsh physical punishment as an appropriate means of discipline ($p=0.0066$).

Caregivers were asked to describe their response in several scenarios where a child misbehaves by 1) spilling water, 2) refusing to help with house chores, and 3) hitting another child. The response options were: do nothing, take the toys away from child, explain why his/her behavior is wrong, shout at the child, spank or hit the child, and other reactions. Data are presented in Table 22.

Table 12 Caregivers' responses in various child discipline scenarios

Child spills water

Response	Rural			Urban and peri-urban			All		
	n	N	%	n	N	%	n	N	%
Do nothing	17	494	2.8	61	751	8.6	78	1245	5.8
Take the toys from the child	33	494	9.0	37	751	4.6	70	1245	6.7
Explain why his/her behavior is wrong	345	494	70.4	509	751	67.8	854	1245	69.0
Shout at the child	82	494	14.6	121	751	16.0	203	1245	15.3
Spank or hit the child	11	494	2.2	21	751	2.7	32	1245	2.4
Other	6	494	1.1	2	751	0.3	8	1245	0.7

Child does not help with house chores

Response	Rural			Urban and peri-urban			All		
	N	N	%	n	N	%	n	N	%
Do nothing	16	495	3.3	47	750	6.1	63	1245	4.8
Take the toys from the child	9	495	2.6	8	750	1.0	17	1245	1.7
Explaining why his/her behavior is wrong	322	495	65.3	525	750	70.5	847	1245	68.1
Get angry at the child	121	495	24.3	144	750	19.6	265	1245	21.9
Beat the child	23	495	3.8	14	750	1.5	37	1245	2.6
Other	4	495	0.7	12	750	1.3	16	1245	1.0

Child hits another child

	Rural			Urban and peri-urban			All		
	N	N	%	n	N	%	n	N	%
Do nothing	8	496	1.3	28	750	3.6	36	1246	2.5
Take the toys from the child	23	496	5.9	16	750	1.9	39	1246	3.8
Explaining why his/ her behavior is wrong	305	496	61.7	504	750	66.9	809	1246	64.5
Get angry at the child	115	496	22.4	160	750	21.7	275	1246	22.0
Beat the child	31	496	6.3	32	750	4.7	63	1246	5.5
Other	14	496	2.3	10	750	1.1	24	1246	1.7

Across all scenarios, the most common response for each misbehavior was to explain to the child why his/her behavior was wrong. Caregivers were twice as likely to cite “beat the child” as a response for when their child hits another child compared to when a child spills water or does not help with chores (5.5% vs. 2.7% and 2.6%, respectively). Rural dwellers were twice as likely to cite “beating the child” as their response than urban dwellers when the child does not help with house chores (3.8% vs. 1.5%).

4.3.6 Beliefs about child marriage

Caregivers were asked about beliefs related to child marriage, i.e. marriage before the age of 18 years.

Three related question were asked:

1. Would you marry a son to a girl who is less than 18 years old?
2. At what age do you think that girls should get married?
3. Some girls get married before age 18. Do you think this practice should continue?

Results for each question are shown in Tables 23 – 25.

Table 13 Caregivers' opinions on whether they would marry a son to a girl who is less than 18 years old

Category	n	N	%	95% CI	
				LL	UL
No	1045	1232	84.8	81.9	87.7
Yes	16	1232	1.5	0.6	2.5
It depends	171	1232	13.7	10.9	16.5

Table 14 Caregivers' opinions on the age at which girls should get married

Category	n	N	%	95% CI	
				LL	UL
Under 18 years	8	1220	0.7	0.2	1.2
18 years or over	1,058	1220	86.6	84.0	89.1
It depends	154	1220	12.8	10.2	15.3

Table 15 Caregivers' opinion on the practice of girls getting married before age 18 should continue

Category	n	N	%	95% CI	
				LL	UL
No	1066	1234	86.3	83.7	88.9
Yes	12	1234	1.2	0.5	1.8
In some circumstances	156	1234	12.5	10.0	15.1

Answers to all three questions are consistent: 84.8 percent of caregivers would not marry a son to a girl who is less than 18 years old, 86.6 percent of caregivers think girls should get married over age 18, and 86.3 percent think that the practice of girls marrying younger than age 18 should not continue. We did not detect any statistical differences by caregiver sex, age group, or location on any of these three questions.

4.3.7 Knowledge of child rights

Caregivers were asked about their knowledge of child rights. Respondents were asked to name the child rights they know, and we calculated how many could name at least three child rights. Child rights included rights to: life, health/health care, birth certificate/identity, reside with parents, education, play/rest, protection against child labor, to be heard/to express views, seek and share information, freedom of religion, protection against discrimination, protection against sexual violence, and legal due course, among others they may have listed out. The percentage of caregivers who listed at least three child rights, by caregiver characteristics, are presented in Table 26.

Table 16 Caregivers who know at least three child rights

Caregiver sex	n	N	%	95% CI	
				LL	UL
Female	711	1091	66.8	60.8	72.8
Male	122	159	73.7	62.6	84.8
Caregiver age group	n	N	%	95% CI	
				LL	UL
<18	3	5	62.6	-	-
18-30	205	294	71.0	63.5	78.4
31-50	431	642	68.9	63.5	74.2
51+	194	309	62.1	53.2	70.9
Location of household	n	N	%	95% CI	
				LL	UL
Rural	299	498	64.6	53.6	75.7
Urban or peri-urban	534	752	70.3	63.5	77.2
All	833	1250	67.6	61.7	73.6

Two-thirds (67.6%) of caregivers named at least three child rights, with no statically significant differences detected by caregiver sex (p=0.2283) or location (p=0.3405).

4.4 Child Characteristics and Outcomes

4.4.1 Characteristics of the children from the household sample

Caregivers provided information on all children under their care. The characteristics of these children are presented in Table 27.

Table 27 Characteristics of the surveyed children

Child's age	Female		Male		All children		Percentage of children who are female
	n	%	n	%	N	%	
0-4 years	512	23.1	521	22.4	1033	22.7	50.7
0-5 months	36	6.5	29	4.6	65	5.6	59.1
6-11 months	32	6.4	30	6.4	62	6.4	50.7
12-23 months	92	19	115	21.1	207	20	47.9
2-4 years	352	68.2	347	67.9	699	68	50.8
5-9 years	741	32.2	734	32.4	1475	32.3	49.8
10-14 years	712	32.4	700	30.6	1412	31.5	51.3
15-17 years	259	12.4	312	14.6	571	13.5	46
Disability	Female		Male		All children		
	N	%	n	%	N	%	
Any disability	55	2.3	64	2.8	119	2.5	
Blind	8	15.9	10	18.4	18	17.3	
Deaf	14	19.5	20	34.4	34	27.5	
Learning	3	6.5	8	12.6	11	9.8	
Physical	16	29.4	24	35	40	32.4	
Other	19	35.0	10	11.5	29	22.3	
Cohabitation with parents	Female		Male		All children		
	N	%	n	%	N	%	
Lives with mother and/or father	1619	73	1661	73.6	3280	73.3	
Lives with mother	1527	68.8	1559	69.4	3086	69.1	
Lives with father	614	28.5	606	27.1	1220	27.8	
Lives with mother and father	522	24.4	504	23	1026	23.7	
Lives with neither mother nor father	604	27	605	26.4	1209	26.7	
All	2,223	100	,2266	100	4,489	100	

The children in surveyed households are equally distributed in terms of gender, with two exceptions: there are slightly more girls in the 0-5 month age group and slightly more boys in the 15-17 year age group. The distribution of surveyed children is also similar in terms of age, with fewer children in the 15-17 year age group (expected as this age group covers only three years, vs. five).

Two percent of children have some disability, with a learning disability being the most common.

Less than one-quarter (24%) of children live with their mother and father, while more than two-thirds (68%) live with the mother only. Around 27 percent of children do not live with either their mother or father, instead living with relatives such as an uncle or grandmother.

4.4.2 Health

Percent of children too sick to participate in daily activities (MER ESI CW.4)

Caregivers were asked if the children under their care had been too sick to participate in daily activities at any time, within two weeks prior to the survey. The results are presented in Table 28.

Table 28 Children too sick to participate in daily activities

Age group	All children				
	n	N	%	95% CI	
				LL	UL
0-4 years	208	1026	20.0	17.4	22.7
5-9 years	194	1475	13.1	10.2	15.9
10-14 years	173	1410	11.7	9.7	13.7
15-17 years	83	570	14.0	10.0	18.1
All ages	658	4,481	14.3	12.5	16.1

Age group	Female children					Male children				
	n	N	%	95% CI		n	N	%	95% CI	
				LL	UL				LL	UL
0-4 years	112	510	21.8	18.2	25.4	96	516	18.2	14.7	21.6
5-9 years	105	741	14.3	10.6	18.0	89	734	11.8	8.5	15.2
10-14 years	86	711	11.3	8.5	14.1	87	699	12.1	9.7	14.5
15-17 years	46	259	17.2	10.6	23.9	37	311	11.3	7.3	15.4
All ages	349	2221	15.4	13.0	17.8	309	2260	13.2	11.2	15.3

Based on all caregivers' reporting, an average of 14.3 percent of children were too sick to participate in daily activities., with no statistical differences detected by sex (p=0.1093). Children ages 0-4 years were statistically more likely to be sick than older children (p=0.002).

Percent of children whose primary caregiver knows child's HIV status (MER ESI NC.1)

Caregivers were asked if the children under their care were tested for HIV and if they knew the results of the HIV test. The responses are displayed in Tables 29 and 30.

Table 29 Children whose caregiver reported that they were tested for HIV

Category	n	N	%	95% CI	
				LL	UL
No	2863	4491	62.6	55.7	69.4
Yes	1589	4491	36.5	29.7	43.3
Don't Know/No Response	39	4491	1.0	0.6	1.3

Table 17 Caregivers who report knowing the HIV test result of their child, among children who caregiver reports have tested

Category	N	N	%	95% CI	
				LL	UL
No	62	1589	4.5	2.9	6.0
Yes	1526	1589	95.4	93.8	97.0
Don't Know/No Response	1	1589	0.1	0.0	0.3

The MER OVC essential survey indicator for whether primary caregivers know the HIV status of children under their care assumes that if a child was not tested, the caregiver does not know his/her HIV status. Therefore, results are presented which include all children with non-missing responses for whether the child was reported to have an HIV test or whether the caregiver knew the results (n=4451). These results are presented in Table 31.

Table 18 Children whose primary caregiver knows the child's HIV status

Age group	All children				
	n	N	%	95% CI	
				LL	UL
0-4 years	430	1025	41.2	33.8	48.6
5-9 years	489	1469	33.9	26.6	41.2
10-14 years	416	1401	31.7	23.8	39.6
15-17 years	191	556	36.1	28.4	43.8
All ages	1526	4451	35.2	28.5	41.8

Age group	Female children					Male children				
	n	N	%	95% CI		n	N	%	95% CI	
				LL	UL				LL	UL
0-4 years	213	508	42.6	33.7	51.6	217	517	39.7	32.3	47.1
5-9 years	251	736	34.4	26.9	42.0	238	733	33.4	25.7	41.1
10-14 years	221	708	33.2	24.5	41.8	195	693	39.2	21.9	38.5
15-17 years	106	253	45.1	35.9	54.4	85	303	28.3	20.1	36.4
All ages	791	2205	37.2	29.8	44.7	735	2246	33.1	26.9	39.3

One-third (35.2%) of the children in the sample had an HIV status known to the caregiver. Caregivers were statistically more likely to report knowing girls' than boys' HIV status (girls: 37.2% vs. boys: 33.1%, p=0.0224). Differences by age group were borderline statistically significant (p=0.0820).

4.4.3 Nutrition

Percent of children who are undernourished (MER ESI CW.1)

MUAC was measured for all children aged 6-59 months in the surveyed households. A child was considered undernourished if her/his MUAC measurement fell below 125 mm. Results are presented in Table 32.

Table 19 Percent of children aged 6-59 months who are undernourished

Age group	All children									
	n	N	%	95% CI						
				LL	UL					
6-11 months	8	61	10.4	3.9	17.0					
12-59 months	20	881	2.5	0.8	4.0					
6-59 months	28	942	3.0	1.6	4.4					
Age group	Female children					Male children				
	n	N	%	95% CI		n	N	%	95% CI	
				LL	UL				LL	UL
6-11 months	4	32	11.7	0	23.9	4	29	9.1	0.0	21.2
12-59 months	6	430	1.6	0.2	3.1	14	451	3.3	1.0	5.5
6-59 months	10	462	2.4	0.9	3.8	18	480	3.7	1.6	5.7

Three percent of children aged 6-59 months were observed to be undernourished. Differences by age group and sex were not statistically significant ($p=0.565$ and $p=0.2320$, respectively).

4.4.4 Early childhood development

Percent of children < 5 years of age who recently engaged in stimulating activities with any household member over 15 years (MER ESI CW.13)

Caregivers were asked whether the children under the age of 5 in their care had engaged in stimulating activities in the past three days, with the caregiver or another household member over 15 years of age. Stimulating activities that were queried included reading books, looking at the pictures in the books, telling stories, singing songs or lullabies, playing with the child, or naming, counting, or drawing things. The results are presented in Table 33.

Table 20 Children <5 years of age who recently engaged in stimulating activities with any household member over 15 years of age

Activity	All children				
	n	N	%	95% CI	
				LL	UL
Read/looked at picture books	85	1026	7.8	5.4	10.2
Told stories	146	1013	13.9	10.4	17.4
Sang songs or lullabies	479	1025	45.1	38.0	52.3
Engaged in play	724	1024	67.2	60.2	74.2
Named, counted, or drew things	188	1021	16.1	11.3	20.9
Took outside home for a walk	431	1023	39.8	31.3	48.3
One or more of these activities	801	1028	75.4	68.6	82.2

Activity	Female children					Male children				
	n	N	%	95% CI		n	N	%	95% CI	
				LL	UL				LL	UL
Read/looked at picture books	50	508	9.7	6.3	13.1	35	518	5.9	3.2	8.7
Told stories	71	500	13.5	9.6	17.4	75	513	14.3	9.8	18.7
Sang songs or lullabies	238	508	44.2	37.2	51.3	241	517	46.0	37.2	54.8
Engaged in play	345	508	63.7	55.6	71.8	379	516	70.7	63.6	77.9
Named, counted, or drew things	92	507	16.3	11.9	20.6	96	514	15.9	9.3	22.6
Took outside home for a walk	209	508	37.6	28.3	46.8	222	515	42.1	33.3	51.0
One or more of these activities	388	509	72.8	65.2	80.4	413	519	78.1	71.1	86.1

Caregivers reported that three-quarters of children younger than 5 (75.4%) had engaged in at least one type of stimulating activity with an adult within the past three days. The finding that boys were more likely to be engaged in at least one activity compared to girls, was borderline statistically significant (76.6% vs. 72%, respectively, $p=0.0637$). The most frequently reported activities were play (67.2%), followed by singing songs or lullabies (45.1%).

4.4.5 Child protection

Percent of children who have had their birth registered (MER ESI CW.9)

Caregivers were asked if the children under their care had had their birth registered, and if yes, they were asked to show proof. The results are presented in Table 34.

Table 21 Children who have had their birth registered (verified)

Age group	All children				
	n	N	%	95% CI	
				LL	UL
0-4 years	361	1033	34.7	28.6	40.7
5-9 years	623	1475	41.7	36.8	46.5
10-14 years	698	1412	50.7	45.9	55.4
15-17 years	275	571	46.5	38.7	54.4
All ages	1957	4491	43.6	39.7	47.5

Age group	Female children					Male children				
	n	N	%	95% CI		n	N	%	95% CI	
				LL	UL				LL	UL
0-4 years	188	512	35.4	28.0	42.8	173	521	33.9	27.4	40.3
5-9 years	312	741	41.5	37.0	46.0	311	734	41.8	35.7	48.0
10-14 years	363	712	51.7	45.8	57.7	335	700	49.5	44.3	54.7
15-17 years	134	259	50.4	39.6	61.2	141	312	43.2	36.0	50.5
All ages	997	2224	44.5	40.1	48.9	960	2267	42.6	38.6	46.6

Caregivers of 68.3 percent of children reported having a birth certificate for their child (nearly 80% for children over 10 years of age). However, possession of birth certificate could not be confirmed in about one-third of these cases. Less than half (43.6%) of children had a birth certificate (acceptable answers included a: *boletim*, *cédula* and/or a *certidão de nascimento*) that was confirmed by the interviewer, with no statistical differences detected by sex ($p=0.2367$) or age group ($p<0.019$).

Caregivers were asked whether they had used any of the following child discipline methods in the month prior to survey:

- took away toys/prohibited an activity that the child likes
- explained why the child’s behavior was wrong
- shouted, scolded or yelled at the child
- spanked, hit, or slapped the child

Data are presented in Table 35.

Table 22 Methods of child discipline used by caregivers

Method of child discipline used	All children				
	n	N	%	95% CI	
				LL	UL
Took away toys/prohibited activity	1087	4465	25.1	19.6	30.5
Explained why a behavior was wrong	3734	4451	84.5	81.7	87.3
Shouted, scolded, or yelled	1710	4460	39.8	34.4	45.0
Spanked, hit, or slapped	419	4458	9.4	7.0	11.7

	Female children					Male children				
	n	N	%	95% CI		n	N	%	95% CI	
				LL	UL				LL	UL
Took away toys/prohibited activity	553	2212	25.5	20.4	30.7	534	2253	24.6	18.5	30.6
Explained why a behavior was wrong	1870	2203	85.3	82.5	88.1	1864	2248	83.7	80.4	87.0
Shouted, scolded, or yelled	855	2209	39.9	34.4	45.3	855	2251	39.6	34.0	45.3
Spanked, hit, or slapped	214	2209	9.6	7.3	11.9	205	2249	9.1	6.3	11.8

The child discipline method most commonly reported was explaining why a behavior was wrong (84.5%), followed distantly by shouting (39.8%), taking away toys/prohibiting an activity (25.1%), and spanking (9.4%). There were no statistically significant differences found by sex of the child in methods of child discipline reported by caregiver (took away toys: $p=0.4863$, explained wrong behavior: $p=0.1864$, shouted: $p=0.8922$, spanked: $p=0.5931$).

4.4.6 Education

In Mozambique, early childhood education or pre-primary school begins as early as 2 years old and children typically begin primary education at 6 years old. A question was posed to caregivers of children aged 3-4 years, asking whether they were enrolled in pre-school. The results are given in Table 36.

Table 23 Children ages 3-4 years who were enrolled in pre-school

	n	N	%	95% CI	
				LL	UL
Female	11	267	4.8	1.7	7.8
Male	3	225	1.2	0.0	2.6
All children	14	492	3.2	1.4	5.0

Caregivers reported that 3.2 percent of children aged 3-4 years were enrolled in a pre-school.

Data on school enrollment are presented in Table 37. In Mozambique, children typically begin primary education when they are 6 and secondary education when they are 13. The survey data are presented according to these age groups (6-12 years for primary education, 13-17 years for secondary education), as well as for the regular PEPFAR MER age groups.

Table 37 Children enrolled in school

Age group	All children									
	n	N	%	95% CI						
				LL	UL					
5-9 years	875	1475	59.5	54.8	64.3					
10-14 years	1156	1412	82.6	78.7	86.4					
15-17 years	373	571	63.9	57.2	70.6					
Ages 5-17	2404	3458	69.7	66.0	73.3					
Age groups according to school levels										
6-12 (Primary)	1602	2086	77.6	73.1	82.2					
13-17 (Secondary) ²	765	,079	70.1	64.9	75.2					
Age group	Female children					Male children				
	n	N	%	95% CI		n	N	%	95% CI	
				LL	UL				LL	UL
5-9 years	432	741	58.9	53.8	64.1	443	734	60.1	54.4	65.8
10-14 years	588	712	83.1	78.7	87.4	568	700	82.0	77.9	86.1
15-17 years	177	259	66.8	59.3	74.2	196	312	61.4	52.8	70.0
Ages 5-17	1197	1712	70.4	66.42	74.3	1,207	1746	69.0	65.0	73.0
Age groups according to school levels										
6-12 (Primary)	791	1023	77.9	73.0	82.9	811	1063	77.3	72.5	82.1
13-17 (Secondary)	386	522	73.4	68.4	78.4	379	557	66.8	60.1	73.6

More than two-thirds (69.7%) of children aged 5-17 years were enrolled in school at the time of survey. Primary school enrollment was higher than secondary school enrollment (77.6% vs. 70.1%, respectively $p=0.0178$). School enrollment varies significantly with the age group ($p<0.001$) but not with sex ($p=0.3807$). Children in the 10-14-year age group were more likely to be enrolled in school than children in the other age groups.

Percent of children regularly attending school (MER ESI CW.11)

Data on regular school attendance, measured as the proportion of all children who have not missed any school days in the previous school week, are presented in Table 38.

² Of note, not all children in this age group had proceeded to secondary school. About one-quarter of all children were behind per these age groups.

Table 38 Children regularly attending school

Age group	All children									
	n	N	%	95% CI						
				LL	UL					
5-9 years	723	1475	49.4	44.4	54.3					
10-14 years	926	1412	66.4	61.6	71.2					
15-17 years	303	571	51.7	45.0	58.4					
Ages 5-17	1952	3458	56.7	52.9	60.5					
Age groups according to school levels										
6-12 (Primary)	1310	2086	63.7	59.0	68.5					
13-17 (Secondary)	611	1079	56.1	50.4	61.7					
Age group	Female children					Male children				
	n	N	%	95% CI		n	N	%	95% CI	
				LL	UL				LL	UL
5-9 years	361	741	49.3	43.3	55.2	362	734	49.5	43.9	55.1
10-14 years	467	712	67.1	61.5	72.7	459	700	65.7	60.1	71.3
15-17 years	139	259	52.8	43.5	62.1	164	312	50.7	42.1	59.3
Ages 5-17	967	1712	57.3	52.9	61.7	985	1746	56.1	51.6	60.6
Age groups according to school levels										
6-12 (Primary)	649	1023	64.7	58.7	70.7	661	1063	62.8	58.0	67.6
13-17 (Secondary)	300	522	57.5	50.3	64.6	311	557	54.7	53.6	55.8

Over half of all children aged 5-17 years (56.7%) were enrolled in school and attending regularly, with no statistical differences detected by sex ($p=0.5895$). Children in the 10-14 year age group were more likely to be enrolled and regularly attending school than children in other age groups ($p<0.001$). Fewer than half of the children aged 5-9 years were enrolled and attending school regularly (49.4%). However, this bumps up to 58.5 percent if we exclude 5-year-old children from the analysis (who are possibly not yet attending school, given the more typical starting age of 6). If we exclude from the analysis children who are not enrolled in school, we find that 81.4 percent are regularly attending, with few differences between age levels or sexes.

Percent of children who progressed in school during the last year (MER ESI CW.12)

Data on the percent of children that have reportedly progressed in school since the last school year, measured by their change in grade between school years, is presented in Table 39. The denominator includes children who were enrolled in school during the previous school year.

Table 39 Children who progressed in school in the past year (among those enrolled last year)

Age group	All children									
	n	N	%	95% CI						
				LL	UL					
5-9 years	472	662	71.6	65.9	77.3					
10-14 years	928	1226	77.2	73.5	80.9					
15-17 years	288	438	66.7	61.6	71.9					
Ages 5-17	1688	2326	73.6	70.4	76.8					
Age groups according to school levels										
6-12 (Primary)	1068	1433	75.9	72.3	79.5					
13-17 (Secondary)	615	886	70.1	65.7	74.5					
Age group	Female children					Male children				
	n	N	%	95% CI		n	N	%	95% CI	
				LL	UL				LL	UL
5-9 years	235	328	73.3	68.1	31.9	237	334	69.9	62.0	77.9
10-14 years	481	629	78.2	73.8	82.6	447	597	76.2	72.0	80.3
15-17 years	143	211	68.2	60.6	75.8	145	227	65.3	58.9	71.7
Ages 5-17	859	1168	75.0	71.2	78.8	829	1158	72.2	68.6	75.8
Age groups according to school levels										
6-12 (Primary)	537	717	76.8	72.7	80.8	531	716	75.1	70.7	79.4
13-17 (Secondary)	319	446	72.5	66.5	78.4	296	440	67.5	63.1	71.9

Overall, 73.6 percent of children aged 5-17 years were reported to have progressed in school, with no statistical differences detected by sex ($p=0.1364$). We did detect by age group, with children aged 10-14 years being more likely to have progressed in school than children in other age groups ($p=0.0016$). Progression of the youngest age group remains unchanged when excluding 5-year-old children.

5. DISCUSSION

We collected information from 1250 caregivers about 4491 children. The survey had a high response rate (86.8%). The indicators, including the nine PEPFAR MER OVC essential survey indicators, collected in the survey provide a snapshot of the well-being of children and households served by the project in mid-2017. The findings illuminate beneficiary population needs and will be used to inform program management decisions. Importantly, the project had been implementing for several months at the time of data collection. Data represent beneficiary status in September 2017.

Regarding **children's health**, 14.3 percent of children were reportedly too sick to participate in daily activities at some point during the two weeks before the survey. Caregivers were more likely to report recent illness among children under age 5. Although there is no reference to compare these numbers to gauge the seriousness of the problem for children ages 0–17, the finding warrants closer examination of the causes of illness and possible interventions. In this HIV-affected beneficiary population, high rates of illness certainly may be related to AIDS, tuberculosis, and opportunistic infections. Malaria is also highly prevalent in Mozambique, affecting 40 percent of children under age 5 (MISAU, INE & ICF, 2015).

Caregivers reported “**HIV status known**” for one-third (35.2%) of children. Two-thirds of caregivers self-reported a previous HIV test in the 12 months prior to the survey and having received the results of their last test, with females more likely to report testing and receiving results. This is slightly higher than reported in the 2015 *Inquérito de Indicadores de Imunização, Malária e HIV/SIDA* (IMASIDA) study, which reported that 58.3 percent of females and 38 percent of males had tested and received the results of their last test (MISAU, INE & ICF, 2015). In the COVida survey, rural caregivers were more likely to report testing and receiving their results compared to urban ones (75.8% vs. 62.7%), the opposite of what was documented in the IMASIDA study. These findings underscore the critical role of COVida in linking at-risk children and caregivers to HIV testing services. Sixteen percent of caregivers reported that someone in their household had already been referred to a health facility by COVida, suggesting that this work is underway.

Three percent of children ages 6–59 months were found to be **malnourished** based on a MUAC measurement of less than 125mm (the standard cut-off for severe malnutrition is <115mm).³ The

³ Of note, MUAC measures *acute* undernutrition and is most commonly applied in famine contexts. Therefore, the low rate of undernutrition across 0-4 year olds as measured by MUAC is expected. However, this measure does not account for

2011 Demographic and Health Survey (DHS) found that 6 percent of children under 5 were wasted⁴—2 percent severely so (MISAU, INE & ICFI, 2011)—in line with the estimates from this study. Importantly, 10.4 percent of children aged 6-11 months were found to be malnourished. The DHS reports a similar prevalence of wasting among children in this age group (MISAU, INE & ICFI, 2011). There is a call in the global community to make MUAC cut-offs gender- and age-specific (6-23 months, 2-4 years) to better predict malnutrition (Fiorentino et al., 2016).

Caregivers reported that 68.3 percent of children had **birth certificates**, although birth certificates were only seen for 43.6 percent of children (34.7% of children under age 5). These data are in line with the most recent DHS, which found that 38 percent of children under 5 years had a birth certificate in hand (MISAU, INE & ICF, 2015). Possession of birth certificates peaked in the 10–14-year-old age group at 50.7 percent. Because evidence of birth registration is required to enter school exams, beginning in Grade 2, this finding is not surprising. The government, together with the United Nations Children’s Fund (UNICEF) and others, recently has made significant efforts to extend birth registration facilities. COVIDa can help with the last step—supporting registration of hard-to-reach children.

The survey included two proxy indicators for **early childhood development**: engagement in stimulating activities and pre-school enrollment. The survey found that three-quarters (75.4%) of children had recently been engaged in stimulating activities with a household member aged 15 or over. The most commonly reported activity was playing (67.2%), followed by singing songs (45.1%). Less commonly reported engagement included reading or looking at picture books (7.8%), storytelling (13.9%), and naming and counting things (16.1%). The low rates of book reading are unsurprising given low caregiver literacy (per the 2011 DHS, only 40% of women and 68% of men are literate); however, the project is well placed to educate caregivers on the importance of stimulating children through storytelling, counting, etc.

The study assessed pre-school enrollment among children ages 3-4 years, finding that only a very small fraction (3.2%) are enrolled, which compares well to data reported from other sources (UNICEF, 2014a). This finding is in line with other estimates—a 2011 World Bank study found that only 4 percent of Mozambican children were enrolled in pre-school, and these children were

chronic undernutrition, which is significant in Mozambique and, likely by extension, within the COVIDa beneficiary population.

⁴ MUAC is not collected in the DHS. However, weight-for-height, or wasting, is another measure of acute malnutrition – although weight-for-height and MUAC do not necessarily identify the same people as malnourished, particularly among children aged 2-4 years (Tadesse et al., 2017).

generally from affluent families and living in urban areas (Martinez, Naudau & Pereira, 2012). Studies in Mozambique and elsewhere have demonstrated the role of pre-school in child development, including cognitive, fine motor, and socio-emotional (though not language) development, which can affect school readiness and primary school enrollment (Martinez, Naudau & Pereira, 2012). The long-term effects of a lack of early childhood stimulation certainly are well documented (e.g., Naudau et al., 2010). COVida is in a strong position to extend the reach of early childhood development interventions, so long as this remains a focus of programming.

This study assessed three **education** indicators among children aged 5-17 years: enrollment, regular attendance, and progression, as well as caregiver attitudes around the importance of education. Just under 70 percent (69.7%) of children were reportedly enrolled in school (77.6% of primary school-aged children and 70.1% of secondary school-aged children). Interestingly, secondary school-aged girls were more likely to be enrolled than secondary school-aged boys. Enrollment rates among primary school-aged children served by COVida were almost exactly the same as those cited in the 2011 DHS, though slightly higher among secondary school-aged children (MISAU, INE & ICFI, 2011).

Only 56.7 percent of all children surveyed were regularly attending school (63.7% of primary school-aged children and 56.1% of secondary school-aged children). Youth aged 12-17 years were asked directly about why they did not attend school regularly (report forthcoming); the most common response given was illness, which could include menstruation. This finding underscores the important role that OVC programs such as COVida can have in removing barriers to school attendance for girls as well as boys.

Three-quarters (73.6%) of children aged 5–17 years enrolled in school during the survey year and the previous year reported progressing in school (75.9% of primary school-aged children and 70.1% of secondary school-aged children). Girls were slightly more likely to progress compared to boys: 75.0 percent vs. 72.2 percent. It is important to note that data on progression are at best a proxy of actual scholastic achievement. The Mozambican education system requires students to pass exams at several points in their schooling, but several recent studies have documented falling pass rates at both the primary and secondary levels (Visser, 2013; Raupp, Newman, & Revés, 2013; Adelman, Shuh Moore, & Manji, 2011). Increasing pre-school coverage might improve performance in later years and contribute to real progression, as would interventions to improve the quality of teaching.

Caregivers were nearly universally supportive of both boys and girls attending primary and secondary school, though nearly one-quarter (23.4%) reported that it was more important for boys to attend school. Confronting caregivers' attitudes around education of the girl child through

community dialogues and other sensitization programming may reduce drop-outs and improve rates of regular attendance among girls over time.

Two-thirds (67.6%) of caregivers were able to name at least three child rights, including the right to education, with males, younger caregivers, and urban dwellers being more informed. Despite progress in supporting the realization of child rights, practices in Mozambique are still at odds with international commitments as found in the United Nations second Universal Periodic Review carried out in 2016. For instance, progress toward gender equality is lacking, rates of child labor are concerning, and child abuse and sexual exploitation persist, including in schools. Equipping the population with knowledge of their rights, and the rights of their children, can create pressure on the government and non-governmental organizations to meet obligations.

Approximately 13 percent of caregivers were accepting of early marriage (prior to age 18). However, child marriage rates in Mozambique are extremely high: 49% of girls are married before they turn 18 (MISAU, INE & ICF, 2015). This discrepancy could possibly be explained by caregivers not wanting the practice of early marriage to continue but seeing no alternative options, and/or simply the influence of social desirability bias in caregivers' responses. Child marriage is associated with a higher likelihood of dropping out of primary school and a lower likelihood of starting secondary school, as well as adolescent pregnancy, which itself is associated with poor maternal and child health outcomes (UNICEF and UNFPA, 2015). The drivers of child marriage are complex – including early pregnancy, but also poverty and cultural norms. Interventions that aim to address these drivers will also reduce rates of child marriage.

As a proxy for **violence**, the survey asked caregivers whether they agreed that hitting or beating a child is an appropriate means of discipline in the home or school. Just over 15 percent (15.7%) of caregivers agreed that violence was acceptable in the home or school, with fewer agreeing that violence is acceptable in the home compared to school (7.6% vs. 13.8%, respectively). Data on the prevalence of violence against children and caregivers' attitudes are limited; however, violence against girls in school settings is widespread (ActionAid, 2013). Campaigns to sensitize both caregivers and teachers to the effects of violence (such as the one launched this year by World Vision in Mozambique), combined with a stronger reporting system (the government currently is making advances in this area) and the regular application of punitive measures for perpetrators, will help protect children. Changing cultural attitudes toward violence is always a long and complex process, however. This study found that female caregivers were somewhat more accepting of harsh physical punishment toward children than male caregivers, suggesting that norms about child

punishment may also be linked to gender roles. This result is consistent with other studies, in which children report mothers to be among the most frequent perpetrators of physical violence (UNICEF, 2014b).

Caregivers were asked to describe their child discipline practices in response to different hypothetical scenarios: child spills water, child hits another child, etc. Overwhelmingly, caregivers responded that they would, if any of these scenarios occurred, explain to the child why their behavior was wrong, rather than raise their voice or spank their child. Similarly, when asked whether they had used various child discipline methods with the children in their care, very few reported using violent disciplinary methods. This contradicts earlier evidence provided by Clacherty and colleagues (2009), which indicates much higher rates of violent discipline. The upcoming violence against children survey (VACS) will provide more detailed information. In the meantime, continuing structural interventions to change norms around violence, particularly school-based violence and corporal punishment, are critical. The practice of corporal punishment creates a general environment for school-based violence, which can lead to poor educational outcomes (UNESCO, 2015) as well as the practice of violence as an adult (Kleynhans, 2010). Importantly, during the Universal Periodic Review of Mozambique in 2016, Mozambique committed to prohibiting all corporal punishment of children.

To assess the **economic resilience of households**, interviewers asked caregivers whether their household had incurred an unexpected household expense during the last 12 months and, if so, whether they were able to access money to pay for that expense. Nearly half (46.3%) of caregivers reported access to money for recent unexpected expenses, with rural caregivers more likely to report access to money. Indeed, more than half of Mozambique's population (56%) is living below the international poverty line (UNICEF, n.d.). This finding indicates a clear opportunity to link caregivers, especially female caregivers, to economic strengthening interventions, such as savings groups (only 11.4% of caregivers reported that someone in their household was currently part of a savings group) and social protection schemes, like the government cash transfer scheme.

The prevalence of economic shocks in the survey population is high – almost all (93.9%) of caregivers reported that their households experienced at least one economic shock in the 12 months prior to survey, and three-quarters (77.4%) experienced at least two in this time period. Four-fifths (79.6%) of caregivers reported an increase in food prices, nearly half (44.5%) reported a lower than expected crop yield, and one-quarter (23.5%) reported a fall in sales for their crops, livestock, or diversity over the last 12 months. These findings may indicate the beginning of an acute food crisis among the population. In addition, one-quarter (25.3%) of caregivers indicated that a household member died

in the 12 months prior to survey. Household deaths pose an emotional, social, and financial burden on households, the last including funeral costs and loss of household income. One-third of households indicated that their household was affected by business failure during the year, underscoring the importance of training members of savings and lending groups in business skills.

This study assessed caregiver psychosocial well-being using Cantril's Ladder (Cantril, 1965), which asks respondents to evaluate their current life state. Respondents are then categorized as "thriving," "struggling," or "suffering." Few caregivers were categorized as thriving; most (86.6%) were categorized as suffering. Findings are not surprising – responses to the Cantril ladder have been widely correlated with income (Deaton, 2008), and the research population for this study is extremely low-income. Caregivers' hopefulness was also assessed, and results were far more encouraging: a majority of caregivers (55.6%) reported that they believe their lives would improve over the next year. Hope has been linked to motivation to improve one's life situation as well as a number of HIV prevention and care behaviors (Abler et al., 2017).

There are several **limitations** to the methods—most significantly the following:

- Data on children were reported by the caregiver, not the child, and thus may be subject to inaccuracies and bias with regard to actual child well-being.
- Tradeoffs were made with regard to the size of the sample in order to contain survey costs, which limited precision of indicator estimates and statistical power for comparisons among subgroups.
- Several of the measures used are subject to social-desirability bias, e.g., practices of child discipline, attitudes toward education, and early childhood marriage, meaning that findings might indicate a more positive situation than the reality. Still, these are well-used measures of well-being used across national surveys, including many in the gold-standard Demographic and Health Surveys.

Also, of note, the results cannot be generalized to populations outside of the project beneficiary population given that the sample was selected from among project beneficiaries only.

Despite these limitations, the survey produced data to meet PEPFAR OVC reporting requirements and provided valuable information on the status of well-being of project beneficiaries. The results from this first round of data collection also serve as a reference for tracking changes over time in the next round of data collection, planned for 2019.

6. RECOMMENDATIONS

The following are programmatic recommendations for the study:

- To improve health (and school attendance) indicators, continue assessing the health and HIV risk among children and their caregivers using standard protocols. Link children and caregivers, including men, at risk to HIV testing services, and if found to be HIV positive, to HIV care and treatment services. Link children and other family members found to be unwell to health facilities, accompanying them when possible.
- Continue capturing MUAC measurements among children ages 6-59 months to identify children with acute malnutrition, referring cases of acute malnutrition to health facilities immediately. Provide nutrition counseling to caregivers during home visits.
- Address high rates of poverty (and school drop-outs) by mobilizing and supporting caregivers and adolescents to participate in savings groups, including in urban areas. Support families in need to access poverty certificates and social protection support from the National Institute of Social Action, and mobilize families to create/improve home gardens and use locally available nutritious foods.
- To improve rates of school attendance and progression, encourage caregivers to closely follow their children's school performance, improve access to school materials and uniforms (through the "Direct Support for Schools fund," participation in savings groups, or other means), and work with families to reduce other barriers to education such as poor health or a lack of identity documents. Stress the importance of school attendance, including retention of girls in secondary school. We recommend that the government and donors increase funding to support students facing financial barriers to attendance.
- Support birth registration both through accompanying families to registration sites and by linking families to national birth registration campaigns. Help families obtain poverty certificate where necessary, support them in getting fines waived for late birth registration, and advocate and coordinate with district notary services and with UNICEF.
- Support the establishment of community-based playgroups with the aim of improving early childhood development indicators. During home visits, sensitize caregivers on the benefits of stimulating children ages 0-4 years, especially those exposed to HIV.
- To address human rights gaps: sensitize caregivers on child discipline, the importance of education (especially for girls), the negative consequences of early marriage, and child rights during home visits and through community dialogues or similar methods. Engage youth in discussions around early marriage, violence, and human rights. Build community advocates in support of child rights.

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APPENDICES

Appendix 1: Indicators for children ages 0-4 years

Additional indicators were collected specifically among children ages 0-4 years. Results are presented here.

Early Childhood Development: Engagement in stimulating activities

Caregivers were asked whether the children under the age of 5 in their care had engaged in stimulating activities in the past three days, with the caregiver or another household member over 15 years of age. Stimulating activities that were queried included reading books, looking at the pictures in the books, telling stories, singing songs or lullabies, playing with the child, or naming, counting, or drawing things. Results are presented in Table 33 in the main report. Here we present data on the proportion of children who had engaged in at least four stimulating activities in the last 3 days: see Table A1.

Table A24 Children < 5 years in the household who recently engaged in at least 4 stimulating activities with a member of the household over 15 years of age

Age group	All Children (N=1028)				Female Children (N=509)				Male Children (N=519)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
0-5 months	8.6	(1.9, 15.3)	6	64	3.2	(0.0, 8.2)	2	35	16.1	(16.1, 16.1)	4	29
6-11 months	11.3	(5.3, 17.4)	8	61	20.3	(9.2, 31.4)	7	32	1.2	(1.2, 1.2)	1	29
12-23 months	15.3	(10.7, 20.0)	37	206	13	(5.8, 20.1)	13	92	17.6	(11.8, 23.3)	24	114
2-4 years	14.0	(11.4, 16.6)	112	697	14.6	(10.8, 18.4)	58	350	13.4	(9.8, 17.1)	54	347
All	13.8	(11.7, 15.9)	163	1028	13.9	(10.8, 17.0)	80	509	13.7	(10.8, 16.7)	83	519

By sex: $p=0.9340$, by age $p=0.4343$

Fourteen percent of children had participated in at least four stimulating activities in the last 3 days with no differences by age group or sex. Table A2 reports the percent of children <5 in the household who recently engaged in at least 1 stimulating activity with their father (among children whose father was living in the household). Among children <5 years of age, 328 had a father living in their household.

Table A25 Children < 5 years in the household (with their father living in the household) who recently engaged in at least 1 stimulating activities with their father

Age Group	All Children (N=1028)				Female Children (N=509)				Male Children (N=519)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
0-5 months	21.2	(7.2, 35.2)	6	25	32.3	(15.6, 48.9)	5	13	8.6	(8.6, 8.6)	1	12
6-11 months	40.7	(21.5, 59.9)	14	32	37.7	(37.7, 37.7)	6	16	43.6	(14.0, 73.2)	8	16
12-23 months	48.0	(36.8, 59.2)	37	71	55.2	(43.2, 67.1)	18	31	41.1	(27.7, 54.6)	19	40
2-4 years	31.8	(24.6, 38.9)	61	200	29.1	(20.9, 37.2)	30	109	34.9	(24.7, 45.0)	31	91
All	35.7	(30.2, 41.3)	118	328	35.6	(27.7, 43.6)	59	169	35.8	(28.3, 43.4)	59	159

Note: By sex: $p=0.9773$, by age $p=0.0206$

One-third (35.7%) of children ages 0-4 years who had a father living in their household, were engaged in at least one stimulating activity with their father in the 3 days prior to survey. There were no differences by sex, but children ages 12-23 months were most likely to be stimulated by their father and children ages 0-5 months were least likely to be stimulated by their father. Caregivers were asked if children played with household items including plates, cups or pots. Results are summarized in Table A3.

Table A26 Children < 5 years in the household who play with household items

Item	All Children (N=1026)				Female Children (N=508)				Male Children (N=518)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
Household items	45.6	(42.3, 48.9)	486	1026	44.2	(39.4, 49.0)	228	508	47.1	(42.5, 51.7)	258	518
Domestic animals or pets	27.8	(24.9, 30.8)	277	1029	27	(22.8, 31.3)	132	510	28.6	(24.5, 32.8)	145	519
Homemade toys	68.1	(65.1, 71.2)	705	1021	65.3	(60.9, 69.8)	340	506	71	(66.8, 75.1)	365	515
Outdoor items	74.4	(71.4, 77.3)	774	1026	72.5	(68.2, 76.7)	372	509	76.3	(72.2, 80.4)	402	517
Store-bought toys	28.3	(25.3, 31.3)	268	1022	29.6	(25.3, 34.0)	137	508	26.9	(22.7, 31.2)	131	514
Books	2.9	(1.9, 3.9)	36	1023	3.2	(1.7, 4.8)	19	508	2.6	(1.3, 3.8)	17	515

Children were most likely to play with outdoor items such as seeds, shells and sticks (74.4%), followed by homemade toys (68.1%). Children were least likely to play with books (2.9%). There

were no differences by sex. Detailed data by item, by age group are presented in detail in Tables A4 to A9.

Table A4 Children < 5 years in the household who play with household items

Age Group	All Children (N=1026)				Female Children (N=508)				Male Children (N=518)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
0-5 months	4.8	(0.0, 11.2)	3	63	1.1	(0.0, 3.5)	1	35	10.1	(2.6, 17.5)	2	28
6-11 months	25.8	(15.5, 36.2)	15	61	34.5	(19.4, 49.6)	9	32	16.1	(7.7, 24.5)	6	29
12-23 months	46.3	(39.3, 53.2)	101	207	38.7	(28.7, 48.6)	38	92	53.3	(43.8, 62.7)	63	115
2-4 years	50.4	(46.4, 54.4)	367	695	50.6	(44.7, 56.4)	180	349	50.3	(44.5, 56.0)	187	346
All	45.6	(42.3, 48.9)	486	1026	44.2	(39.4, 49.0)	228	508	47.1	(42.5, 51.7)	258	518

Table A5 Children < 5 years in the household who play with domestic animals/pets

Age Group	All Children (N=1029)				Female Children (N=510)				Male Children (N=519)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
0-5 months	5.5	(0.0, 12.0)	3	63	.				13.4	(6.0, 20.9)	3	28
6-11 months	7.4	(3.8, 11.0)	6	61	8.6	(3.7, 13.5)	3	32	6.1	(6.1, 6.1)	3	29
12-23 months	27.5	(21.3, 33.7)	55	207	27.5	(20.0, 35.0)	24	92	27.5	(20.0, 35.0)	31	115
2-4 years	31.5	(27.8, 35.3)	213	698	31.1	(25.7, 36.6)	105	351	31.9	(26.6, 37.2)	108	347
All	27.8	(24.9, 30.8)	277	1029	27	(22.8, 31.3)	132	510	28.6	(24.5, 32.8)	145	519

Table A6 Children < 5 years in the household who play with homemade toys

Age Group	All Children (N=1021)				Female Children (N=506)				Male Children (N=515)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
0-5 months	11	(2.6, 19.4)	8	63	6.5	(2.1, 10.9)	4	35	17.5	(5.8, 29.2)	4	28
6-11 months	42.7	(31.4, 54.0)	25	59	39.5	(27.5, 51.5)	14	31	46.2	(30.7, 61.7)	11	28
12-23 months	61.1	(53.7, 68.6)	128	205	60.9	(50.0, 71.8)	58	91	61.3	(51.6, 71.0)	70	114
2-4 years	76.9	(73.6, 80.3)	544	694	74.4	(69.5, 79.2)	264	349	79.6	(75.0, 84.1)	280	345
All	68.1	(65.1, 71.2)	705	1021	65.3	(60.9, 69.8)	340	506	71	(66.8, 75.1)	365	515

Table A7 Children < 5 years in the household who play with outdoor items (seeds, shells, stones, sticks)

Age Group (years)	All Children (N=1026)				Female Children (N=509)				Male Children (N=517)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
0-5 months	7.4	(0.1, 14.8)	4	61	2.8	(2.8, 2.8)	1	35	14.8	(14.8, 14.8)	3	26
6-11 months	42.4	(30.9, 53.9)	27	60	37.3	(25.9, 48.8)	13	31	47.9	(30.4, 65.5)	14	29
12-23 months	69.8	(62.5, 77.1)	150	207	67.8	(56.4, 79.2)	64	92	71.6	(63.7, 79.5)	86	115
2-4 years	83.6	(80.5, 86.7)	593	698	83.3	(79.1, 87.5)	294	351	83.8	(79.2, 88.5)	299	347
All	74.4	(71.4, 77.3)	774	1026	72.5	(68.2, 76.7)	372	509	76.3	(72.2, 80.4)	402	517

Table A8 Children < 5 years in the household who play with store bought toys

Age Group	All Children (N=1022)				Female Children (N=508)				Male Children (N=514)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
0-5 months	5	(0.0, 11.3)	4	62	3.7	(0.0, 8.1)	3	35	7	(7.0, 7.0)	1	27
6-11 months	20.4	(12.8, 28.0)	13	60	27.5	(17.3, 37.8)	8	31	12.6	(12.6, 12.6)	5	29
12-23 months	33	(26.8, 39.3)	59	207	40.2	(30.9, 49.5)	33	92	26.4	(18.6, 34.3)	26	115
2-4 years	29.4	(25.7, 33.2)	192	693	29.3	(23.9, 34.6)	93	350	29.6	(24.2, 35.1)	99	343
All	28.3	(25.3, 31.3)	268	1022	29.6	(25.3, 34.0)	137	508	26.9	(22.7, 31.2)	131	514

Table A9 Children < 5 years in the household who play with books

Age Group	All Children (N=1023)				Female Children (N=508)				Male Children (N=515)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
0-5 months	1.4	(0.0, 4.2)	1	63	0	--	0	35	3.3	(0.0, 10.8)	1	28
6-11 months	0	--	0	60	0	--	0	31	0	--	0	29
12-23 months	2.7	(0.5, 4.9)	6	206	3.9	(0.1, 7.8)	4	91	1.6	(0.0, 3.8)	2	115
2-4 years	3.3	(2.1, 4.6)	29	694	3.6	(1.7, 5.6)	15	351	3	(1.4, 4.7)	14	343
All	2.9	(1.9, 3.9)	36	1023	3.2	(1.7, 4.8)	19	508	2.6	(1.3, 3.8)	17	515

In general, older children were more likely to play with all items. We determined the proportion of children who play with two or more, three or more, and four or more items. Data are presented in Tables A10, A11 and A12 below.

Table A10 Children < 5 years in the household who play with two or more items

Age Group	All Children (N=1033)				Female Children (N=512)				Male Children (N=521)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
0-5 months	7.5	(0.4, 14.5)	5	65	3.7	(1.4, 6.0)	2	36	12.9	(5.8, 20.0)	3	29
6-11 months	47.0	(33.5, 60.5)	31	62	46.3	(34.9, 57.8)	15	32	47.7	(32.7, 62.7)	16	30
12-23 months	74.1	(67.4, 80.8)	157	207	70.8	(60.4, 81.2)	67	92	77.1	(69.3, 85.0)	90	115
2-4 years	86.1	(83.4, 88.8)	603	699	84.3	(80.3, 88.2)	295	352	88	(84.2, 91.7)	308	347
All	76.8	(74.0, 79.6)	796	1033	74	(70.0, 78.1)	379	512	79.6	(75.9, 83.4)	417	521

By sex $p=0.0904$, by age $p<.0001$

Table A27 Children < 5 years in the household who play with three or more items

Age Group	All Children (N=1033)				Female Children (N=512)				Male Children (N=521)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
0-5 months	5.9	(0.0, 12.2)	4	65	1.1	(0.0, 3.4)	1	36	12.9	(5.8, 20.0)	3	29
6-11 months	16.5	(7.5, 25.5)	12	62	23.3	(12.4, 34.3)	8	32	9.5	(1.8, 17.2)	4	30
12-23 months	46.5	(39.1, 53.9)	97	207	44.4	(33.0, 55.9)	42	92	48.5	(39.0, 58.0)	55	115
2-4 years	56.8	(52.8, 60.7)	415	699	55.3	(49.8, 60.9)	198	352	58.3	(52.6, 63.9)	217	347
All	49.3	(46.0, 52.6)	528	1033	47.7	(43.0, 52.4)	249	512	51	(46.3, 55.7)	279	521

By sex $p=0.3555$, by age $p<.0001$

Table A28 Children < 5 years in the household who play with four or more items

Age Group	All Children (N=1033)				Female Children (N=512)				Male Children (N=521)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
0-5 months	5.3	(0.0, 11.4)	3	65	0	--	0	36	12.9	(5.8, 20.0)	3	29
6-11 months	5.2	(2.0, 8.4)	4	62	10.3	(5.4, 15.2)	4	32	0	--	0	30
12-23 months	23.6	(17.5, 29.7)	49	207	24.5	(15.1, 33.9)	22	92	22.8	(15.5, 30.2)	27	115
2-4 years	28.0	(24.3, 31.7)	199	699	27.4	(22.2, 32.5)	95	352	28.7	(23.4, 34.0)	104	347
All	24.4	(21.5, 27.3)	255	1033	24.0	(19.9, 28.1)	121	512	24.9	(20.8, 29.0)	134	521

By sex $p=0.7570$, by age $p=0.0002$

Three-quarters (76.8%), one-half (49.3%) and one quarter (24.4%) of children ages 0-4 years play with two or more, three or more, and four or more items, respectively. Caregivers were if they play with their child at various times: during bathing, feeding or changing them; during their free time; and during household chores. Results are summarized in Table A13.

Table A29 Children < 5 years in the household whose caregiver reports playing with them during various activities

Time	All Children (N=1033)				Female Children (N=512)				Male Children (N=521)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
While bathing, feeding or changing	35.5	(32.3, 38.7)	368	1033	34.9	(30.3, 39.4)	177	512	36.1	(31.7, 40.5)	191	521
During free time	90.4	(88.4, 92.4)	935	1033	90.1	(87.2, 93.0)	463	512	90.7	(88.0, 93.4)	472	521
While doing chores	31.4	(28.4, 34.5)	323	1033	30.9	(26.4, 35.3)	154	512	32	(27.8, 36.2)	169	521

One-third of caregivers report playing with their children during bathing, feeding or changing (35.5%), and while doing chores (31.4%). Ninety percent of caregivers report playing with their children during their free time. Full results by age group are presented in Tables A14-A16.

Table A30 Children < 5 years in the household whose caregiver reports playing with them during bathing, feeding, or changing the child

Age Group	All Children (N=1033)				Female Children (N=512)				Male Children (N=521)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
0-5 months	54.4	(41.5, 67.3)	31	65	56.2	(39.8, 72.6)	16	36	51.8	(36.8, 66.9)	15	29
6-11 months	52.4	(37.4, 67.4)	34	62	57.6	(41.0, 74.1)	18	32	47	(31.1, 62.9)	16	30
12-23 months	43.6	(36.2, 51.0)	92	207	46.5	(36.6, 56.4)	43	92	41	(31.6, 50.3)	49	115
2-4 years	29.9	(26.4, 33.5)	211	699	27.5	(22.7, 32.3)	100	352	32.5	(27.1, 37.8)	111	347
All	35.5	(32.3, 38.7)	368	1033	34.9	(30.3, 39.4)	177	512	36.1	(31.7, 40.5)	191	521

Table A31 Children < 5 years in the household whose caregiver reports playing with them during their free time

Age Group	All Children (N=1033)				Female Children (N=512)				Male Children (N=521)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
0-5 months	69.3	(58.4, 80.1)	48	65	65.7	(50.9, 80.4)	27	36	74.4	(55.8, 93.0)	21	29
6-11 months	83.7	(72.6, 94.9)	53	62	92.6	(87.7, 97.6)	29	32	74.6	(68.4, 80.7)	24	30
12-23 months	93.9	(90.5, 97.4)	194	207	94.6	(89.5, 99.6)	87	92	93.4	(88.5, 98.3)	107	115
2-4 years	91.7	(89.5, 93.9)	640	699	91	(87.6, 94.3)	320	352	92.5	(89.5, 95.6)	320	347
All	90.4	(88.4, 92.4)	935	1033	90.1	(87.2, 93.0)	463	512	90.7	(88.0, 93.4)	472	521

Table A32 Children < 5 years in the household whose caregiver reports playing with them during their household chores

Age Group	All Children (N=1033)				Female Children (N=512)				Male Children (N=521)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
0-5 months	43.6	(31.7, 55.5)	26	65	38.9	(22.9, 54.8)	12	36	50.5	(33.7, 67.3)	14	29
6-11 months	36.5	(25.4, 47.7)	26	62	28.1	(20.4, 35.9)	11	32	45.2	(27.9, 62.6)	15	30
12-23 months	34.9	(28.2, 41.6)	70	207	37.4	(27.2, 47.6)	33	92	32.6	(25.0, 40.2)	37	115
2-4 years	28.9	(25.3, 32.5)	201	699	28.6	(23.3, 33.9)	98	352	29.3	(24.1, 34.4)	103	347
All	31.4	(28.4, 34.5)	323	1033	30.9	(26.4, 35.3)	154	512	32	(27.8, 36.2)	169	521

Caregivers were more likely to report playing with younger children (babies) during bathing, feeding, changing and household chores, and more likely to report playing with older children (toddlers, preschoolers) during their free time.

Neglect

Caregivers were asked if their children were left alone for more than an hour in the week prior to survey. Data are presented in Table A17.

Table A33 Children < 5 years in the household whose caregiver left them alone for more than an hour in the last week

Age Group	All Children (N=1028)				Female Children (N=509)				Male Children (N=519)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
0-5 months	4.7	(0.0, 11.0)	3	64	1.1	(0.0, 3.5)	1	35	9.7	(2.6, 16.8)	2	29
6-11 months	13.1	(6.8, 19.5)	6	62	9.3	(9.3, 9.3)	2	32	17.1	(4.1, 30.1)	4	30
12-23 months	6.9	(3.7, 10.1)	20	206	5.6	(1.1, 10.0)	7	92	8.2	(4.2, 12.1)	13	114
2-4 years	21.4	(18.3, 24.5)	154	696	23	(18.5, 27.6)	80	350	19.7	(15.4, 24.0)	74	346
All	17.0	(14.7, 19.4)	183	1028	17.5	(14.0, 20.9)	90	509	16.6	(13.4, 19.9)	93	519

By sex $p=0.7286$, by age group $p=0.0059$

Seventeen percent of children under 5 years old were left unattended for over an hour. Children ages 2-4 years were most likely to be left unattended.

Caregivers were asked if they left their child in the care of another child under 10 years for more than an hour in the week prior to survey. Data are presented in Table A18.

Table A34 Children < 5 years in the household whose caregiver left them in the care of a child less than 10 years old for more than an hour in the last week

Age Group	All Children (N=1028)				Female Children (N=509)				Male Children (N=519)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
0-5 months	8.6	(4.6, 12.7)	4	64	12.9	(8.5, 17.2)	3	35	2.8	(0.0, 9.0)	1	29
6-11 months	20.9	(11.7, 30.1)	11	62	26.9	(16.5, 37.4)	8	32	14.7	(2.8, 26.7)	3	30
12-23 months	22.3	(16.6, 28.0)	50	207	17.7	(9.0, 26.5)	18	92	26.4	(19.2, 33.7)	32	115
2-4 years	35.3	(31.5, 39.2)	258	698	35.4	(29.9, 40.9)	126	352	35.3	(29.9, 40.7)	132	346
All	30.3	(27.3, 33.4)	323	1031	30.1	(25.7, 34.4)	155	511	30.6	(26.4, 34.8)	168	520

By sex $p=0.8456$, by age group $p<0.0001$

Thirty percent of children ages 0-4 years were left in the care of another child under 10 years for more than an hour in the previous week, with older children more likely to have been left.

Nutrition

Caregivers were asked about what their children eat. Data on breastfeeding is presented in Table A19.

Table A19 Children aged 0-2 years who are currently breastfeeding

Age Group	All Children (N=331)				Female Children (N=159)				Male Children (N=172)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
0-5 months	90.4	(84.1, 96.6)	60	64	90.4	(88.0, 92.8)	33	35	90.3	(83.2, 97.4)	27	29
6-11 months	86.0	(76.2, 95.8)	53	61	82.8	(68.8, 96.8)	27	32	89.6	(76.5, 100)	26	29
12-23 months	63.4	(56.0, 70.8)	128	206	60.7	(49.8, 71.5)	56	92	66	(57.3, 74.7)	72	114
All	72.4	(67.0, 77.9)	241	331	71	(62.5, 79.5)	116	159	74	(66.9, 81.0)	125	172

By sex $p=0.4708$, by age $p=0.0009$

Ninety percent of children under 1 year, and three-quarters (72.4%) of children under 2 years, were reportedly breastfeeding. In Table A20, data on the food intake are outlined.

Table A35 Children aged 6 months - 4 years who receive solid, semi-solid, or soft foods

Age Group	All Children (N=845)				Female Children (N=411)				Male Children (N=434)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
6-11 months	100	(100.0, 100.0)	46	46	100	(100.0, 100.0)	24	24	100	(100.0, 100.0)	22	22
12-23 months	96.9	(94.3, 99.5)	180	186	98.5	(96.2, 100.0)	78	80	95.6	(91.2, 100.0)	102	106
2-4 years	98.6	(97.6, 99.7)	607	613	99	(97.7, 100.0)	305	307	98.3	(96.5, 100.0)	302	306
All	98.3	(97.4, 99.3)	833	845	99	(97.9, 100.0)	407	411	97.7	(96.2, 99.3)	426	434

By sex $p= 0.2075$.

Note: Chi-square tests cannot be computed age group because at least one table cell has 0 frequency (for 6-11 months who did not receive solid, semi-solid, or soft foods).

Nearly all children ages 6-59 months were receiving solid, semi-solid or soft foods. Table A21 outlines data on achievement of dietary diversity (receipt of foods from four or more food groups), among children ages 6-59 months.

Table A36 Children aged 6 months - 4 years who achieved dietary diversity

Age Group	All Children (N=968)				Female Children (N=476)				Male Children (N=492)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
6-11 months	15.9	(6.1, 25.7)	11	62	21.7	(7.5, 35.9)	7	32	9.9	(0.0, 20.7)	4	30
12-23 months	33.7	(26.5, 40.9)	71	207	36.4	(27.0, 45.9)	32	92	31.1	(22.7, 39.5)	39	115
2-4 years	38.4	(34.6, 42.3)	276	699	41.2	(35.6, 46.7)	148	352	35.6	(30.3, 41.0)	128	347
All	35.9	(32.7, 39.1)	358	968	38.9	(34.2, 43.5)	187	476	32.9	(28.5, 37.4)	171	492

By sex $p=0.0417$, by age $p=0.0221$

One third (35.9%) of children achieved dietary diversity. Caregivers were more likely to report dietary diversity among females and older children. Data on the proportion of non-breastfed children ages 6-23 months who received a minimum meal frequency of four times per day during the day prior to survey, are outlined in Table A22.

Table A22 Non-breastfed children aged 6–23 months who received a minimum meal frequency of 4 times per day the day before the survey

Age Group	All Children (N=237)				Female Children (N=98)				Male Children (N=139)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
6-11 months	19	(19.0, 19.0)	1	6	24.2	(24.2, 24.2)	1	5	0	--	0	1
12-23 months	32.7	(22.7, 42.6)	21	78	38.5	(26.1, 50.9)	12	36	26.4	(15.4, 37.5)	9	42
All	31.5	(22.1, 40.8)	22	84	36.7	(24.2, 49.2)	13	41	25.3	(14.7, 36.0)	9	43

By sex $p=0.3502$, by age $p=0.4839$

One-third (31.5%) of non-breastfed children were receiving a minimum meal frequency. Caregivers were asked if their children ate certain types of foods. Data are summarized in Table A23.

Table A23 Children aged 6 months - 4 years who ate various food items during the day and night before the survey

Food items	All Children (N=968)				Female Children (N=476)				Male Children (N=492)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
Vitamin A rich food	72.2	(69.2, 75.2)	686	968	72.7	(68.5, 76.9)	342	476	71.6	(67.3, 75.9)	344	492
Iron rich food	40.5	(37.3, 43.7)	421	968	42.4	(37.7, 47.1)	215	476	38.6	(34.1, 43.0)	206	492
Protein rich food	59.1	(55.8, 62.4)	596	968	59.8	(55.2, 64.5)	293	476	58.4	(53.9, 62.9)	303	492
Sugary foods	34	(30.8, 37.2)	324	968	31.9	(27.3, 36.5)	154	476	36.2	(31.6, 40.7)	170	492

Three-quarters (72.2%) of children consumed Vitamin-A rich foods, forty percent consumed iron-rich foods, and nearly sixty percent (59.1%) consumed protein rich foods. One-third of children (34%) consumed sugary foods over the day and night prior to survey. Data are presented in detail by food item and age group in Tables A24-A27.

Table A24 Children aged 6 months - 4 years who received vitamin A rich foods in the day and night before the survey

Age Group	All Children (N=968)				Female Children (N=476)				Male Children (N=492)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
6-11 months	41.4	(26.8, 56.1)	26	62	41.3	(26.1, 56.4)	13	32	41.6	(25.1, 58.0)	13	30
12-23 months	71.6	(65.0, 78.2)	144	207	71.3	(61.1, 81.5)	64	92	71.8	(63.1, 80.6)	80	115
2-4 years	75.2	(71.9, 78.6)	516	699	76.0	(71.4, 80.7)	265	352	74.4	(69.4, 79.3)	251	347
All	72.2	(69.2, 75.2)	686	968	72.7	(68.5, 76.9)	342	476	71.6	(67.3, 75.9)	344	492

By sex $p=0.7419$, by age $p=0.0079$

Table A25 Children aged 6 months - 4 years who received iron rich foods in the day and night before the survey

Age Group	All Children (N=968)				Female Children (N=476)				Male Children (N=492)			
	W %	95% CI	N	N	W %	95% CI	n	N	W %	95% CI	n	N
6-11 months	23.4	(14.5, 32.2)	17	62	30.2	(15.4, 45.1)	11	32	16.3	(5.5, 27.1)	6	30
12-23 months	38.4	(31.6, 45.2)	85	207	40.7	(32.3, 49.1)	39	92	36.3	(28.3, 44.3)	46	115
2-4 years	42.7	(38.9, 46.6)	319	699	44	(38.4, 49.6)	165	352	41.4	(36.1, 46.7)	154	347
All	40.5	(37.3, 43.7)	421	968	42.4	(37.7, 47.1)	215	476	38.6	(34.1, 43.0)	206	492

By sex $p=0.1548$, by age $p=0.0862$

Table A26 Children aged 6 months - 4 years who received protein rich foods in the day and night before the survey

Age Group	All Children (N=968)				Female Children (N=476)				Male Children (N=492)			
	W %	95% CI	N	N	W %	95% CI	n	N	W %	95% CI	n	N
6-11 months	29.2	(20.6, 37.9)	21	62	32.5	(17.2, 47.8)	12	32	25.9	(13.9, 37.9)	9	30
12-23 months	56.6	(49.3, 64.0)	121	207	56.8	(47.8, 65.9)	52	92	56.5	(47.6, 65.4)	69	115
2-4 years	62.6	(58.8, 66.5)	454	699	63.2	(57.8, 68.6)	229	352	62.1	(56.7, 67.4)	225	347
All	59.1	(55.8, 62.4)	596	968	59.8	(55.2, 64.5)	293	476	58.4	(53.9, 62.9)	303	492

By sex $p=0.7155$, by age $p=0.0181$

Table A27 Children aged 6 months - 4 years who received sugary foods in the day and night before the survey

Age Group	All Children (N=968)				Female Children (N=476)				Male Children (N=492)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
6-11 months	16.8	(8.3, 25.3)	11	62	19.3	(8.4, 30.2)	7	32	14.3	(0.5, 28.0)	4	30
12-23 months	35.1	(28.1, 42.0)	74	207	32.2	(22.1, 42.2)	30	92	37.8	(29.1, 46.4)	44	115
2-4 years	35.3	(31.5, 39.1)	239	699	33	(27.4, 38.5)	117	352	37.7	(32.4, 43.1)	122	347
All	34	(30.8, 37.2)	324	968	31.9	(27.3, 36.5)	154	476	36.2	(31.6, 40.7)	170	492

By sex $p=0.1605$, by age $p=0.0211$

Children ages 12-59 months were nearly twice as likely to consume all food types compared to children ages 6-11 months.

Health

Caregivers were asked if their children ages 0-4 years had diarrhea in the two weeks prior to survey.

Data are presented in Table A28.

Table A378 Children < 5 years in the household who have had diarrhea in the two weeks before the survey

Age Group	All Children (N=1026)				Female Children (N=507)				Male Children (N=519)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
0-5 months	20.7	(13.1, 28.3)	13	64	20	(9.1, 31.0)	6	35	21.6	(13.5, 29.8)	7	29
6-11 months	27.9	(16.2, 39.5)	16	61	32.5	(15.6, 49.3)	8	32	22.7	(4.7, 40.7)	8	29
12-23 months	22.2	(16.0, 28.3)	48	207	15.2	(10.2, 20.1)	15	92	28.6	(20.1, 37.2)	33	115
2-4 years	10.4	(7.9, 12.9)	76	694	10.5	(7.0, 14.0)	39	348	10.3	(6.7, 13.8)	37	346
All	14.4	(12.0, 16.8)	153	1026	13.4	(10.0, 16.8)	68	507	15.4	(12.1, 18.8)	85	519

By sex p=0.4380, by age group p=0.0005

Fourteen percent of children ages 0-4 years reportedly had diarrhea in the two weeks prior to survey, with children under 2 years more likely to be affected. For children who experienced diarrhea in the two weeks prior to survey, caregivers were asked if they received treatment. Data are presented in Table A29.

Table A29 Children < 5 years in the household whose caregiver sought treatment for the diarrhea from any source

Age Group	All Children (N=152)				Female Children (N=67)				Male Children (N=85)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
0-5 months	55.2	(32.1, 78.2)	7	13	71	(0.0, 100.0)	4	6	35.1	(0.0, 100.0)	3	7
6-11 months	33.6	(33.6, 33.6)	7	16	27.8	--*	3	8	43	(43.0, 43.0)	4	8
12-23 months	51.7	(35.8, 67.7)	26	47	67.8	(13.0, 100.0)	10	14	44.1	(32.7, 55.5)	16	33
2-4 years	53.4	(42.7, 64.2)	41	76	57.3	(48.5, 66.2)	23	39	49.4	(34.8, 63.9)	18	37
All	50.7	(41.9, 59.4)	81	152	56.2	(43.2, 69.3)	40	67	45.8	(37.4, 54.2)	41	85

By sex p= 0.2507, by age group p= 0.6459

Half of children received treatment of some sort. Among children treated, caregivers were asked if the children received various types of treatments: oral rehydration salts (ORS), a mix of water, salt and sugar, rice water, a tablet or syrup, or herbs. Data are summarized in Table A30.

Table A30 Children < 5 years in the household whose diarrhea was treated, by treatment type

Treatment type	All Children (N=152)				Female Children (N=67)				Male Children (N=85)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
ORS	60.5	(52.7, 68.3)	91	152	67.6	(55.9, 79.3)	43	67	54.2	(45.2, 63.2)	48	85
Mix of water, salt, sugar	34.6	(26.5, 42.7)	48	153	36.5	(21.4, 51.5)	23	68	33	(25.6, 40.3)	25	85
Rice water	20.9	(15.0, 26.8)	30	153	21	(10.7, 31.2)	14	68	20.8	(13.9, 27.7)	16	85
Tablet or syrup	21.4	(15.3, 27.4)	36	152	18.1	(11.7, 24.5)	15	68	24.3	(16.7, 31.9)	21	84
Herbs	11	(6.5, 15.6)	15	152	9.6	(3.0, 16.3)	7	68	12.3	(5.4, 19.1)	8	84
Other	35.8	(27.6, 43.9)	54	152	33.3	(21.6, 45.0)	24	68	38	(28.3, 47.6)	30	84

* There is at least one stratum (or site) that contains only a single observation for the table. Single-observation strata are not included in the variance estimates; therefore, a confidence interval is not able to be calculated when considering the complex survey design.

Sixty-one percent of children were treated with ORS, 35.6 percent with a mix of water, salt and sugar and 20.9 percent with rice water. Some children received multiple types of treatment.

Data are presented by treatment type, by age group, in Tables A31-A35. Age differentiations should be interpreted with caution, considering confidence intervals, due to small sub-group sizes.

Table A31 Children < 5 years in the household whose diarrhea was treated with ORS

Age Group	All Children (N=152)				Female Children (N=67)				Male Children (N=85)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
0-5 months	93.5	(77.5, 100.0)	12	13	100	(100.0, 100.0)	6	6	85.1	(37.9, 100.0)	6	7
6-11 months	53.3	(53.3, 53.3)	9	16	59.7	--*	5	8	43	(43.0, 43.0)	4	8
12-23 months	57.7	(49.0, 66.4)	28	48	75.7	(65.1, 86.3)	9	15	48.9	(40.0, 57.8)	19	33
2-4 years	58.7	(50.2, 67.1)	42	75	60.8	(54.1, 67.5)	23	38	56.4	(42.6, 70.3)	19	37
All	60.5	(52.7, 68.3)	91	152	67.6	(55.9, 79.3)	43	67	54.2	(45.2, 63.2)	48	85

* There is at least one stratum (or site) that contains only a single observation for the table. Single-observation strata are not included in the variance estimates; therefore, a confidence interval is not able to be calculated when considering the complex survey design.

Table A32 Children < 5 years in the household whose diarrhea was treated with a mix of water, salt and sugar

Age Group	All Children (N=152)				Female Children (N=67)				Male Children (N=85)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
0-5 months	49.7	(12.8, 86.7)	5	13	48.1	(0.0, 100.0)	2	6	51.9	(0.0, 100.0)	3	7
6-11 months	23.3	(0.0, 78.1)	4	16	27.4	--*	2	8	16.7	(0.0, 100.0)	2	8
12-23 months	30.1	(15.7, 44.5)	13	48	32.5	(0.0, 78.5)	4	15	28.9	(17.5, 40.3)	9	33
2-4 years	37.8	(28.3, 47.4)	26	76	38.7	(24.7, 52.7)	15	39	36.9	(30.1, 43.7)	11	37
All	34.6	(26.5, 42.7)	48	153	36.5	(21.4, 51.5)	23	68	33	(25.6, 40.3)	25	85

* There is at least one stratum (or site) that contains only a single observation for the table. Single-observation strata are not included in the variance estimates; therefore, a confidence interval is not able to be calculated when considering the complex survey design.

Table A33 Children < 5 years in the household whose diarrhea was treated with rice water

Age Group	All Children (N=152)				Female Children (N=67)				Male Children (N=85)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
0-5 months	13.1	(13.1, 13.1)	2	13	0	--	0	6	29.7	(29.7, 29.7)	2	7
6-11 months	10.3	(10.3, 10.3)	2	16	13.3	--*	1	8	5.5	(5.5, 5.5)	1	8
12-23 months	26.5	(17.8, 35.1)	10	48	42	(21.9, 62.2)	4	15	18.9	(7.8, 30.0)	6	33
2-4 years	21.2	(11.3, 31.0)	16	76	18.3	(11.1, 25.5)	9	39	24.1	(12.3, 35.9)	7	37
All	20.9	(15.0, 26.8)	30	153	21	(10.7, 31.2)	14	68	20.8	(13.9, 27.7)	16	85

* There is at least one stratum (or site) that contains only a single observation for the table. Single-observation strata are not included in the variance estimates; therefore, a confidence interval is not able to be calculated when considering the complex survey design.

Table A38 Children < 5 years in the household whose diarrhea was treated with a tablet or syrup

Age Group	All Children (N=152)				Female Children (N=67)				Male Children (N=85)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
0-5 months	10.4	(1.7, 19.1)	2	12	5.6	(0.0, 77.4)	1	6	17.4	(17.4, 17.4)	1	6
6-11 months	20.9	(0.0, 75.7)	4	16	17.5	--*	2	8	26.3	(0.0, 100.0)	2	8
12-23 months	28.2	(17.3, 39.2)	15	48	16.1	(5.5, 26.6)	4	15	34.2	(24.3, 44.0)	11	33
2-4 years	18.8	(12.1, 25.4)	15	76	21.3	(13.3, 29.2)	8	39	16.1	(5.2, 27.0)	7	37
All	21.4	(15.3, 27.4)	36	152	18.1	(11.7, 24.5)	15	68	24.3	(16.7, 31.9)	21	84

* There is at least one stratum (or site) that contains only a single observation for the table. Single-observation strata are not included in the variance estimates; therefore, a confidence interval is not able to be calculated when considering the complex survey design.

Table A39 Children < 5 years in the household whose diarrhea was treated with herbs

Age Group	All Children (N=152)				Female Children (N=67)				Male Children (N=85)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
0-5 months	0	--	0	12	0	--	0	6	0	--	0	6
6-11 months	17.1	(17.1, 17.1)	2	16	13.3	--*	1	8	23.3	(23.3, 23.3)	1	8
12-23 months	10.4	(1.8, 19.0)	4	48	0	--	0	15	15.5	(2.1, 28.9)	4	33
2-4 years	11.6	(4.0, 19.2)	9	76	14.1	(3.9, 24.4)	6	39	8.9	(0.0, 20.6)	3	37
All	11	(6.5, 15.6)	15	152	9.6	(3.0, 16.3)	7	68	12.3	(5.4, 19.1)	8	84

* There is at least one stratum (or site) that contains only a single observation for the table. Single-observation strata are not included in the variance estimates; therefore, a confidence interval is not able to be calculated when considering the complex survey design.

Caregivers were asked if their children ages 0-4 years had a fever in the two weeks prior to survey. Data are presented in Table A36.

Table A40 Children < 5 years in the household who had a fever in the two weeks before the survey

Age Group	All Children (N=1025)				Female Children (N=507)				Male Children (N=518)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
0-5 months	22.0	(10.8, 33.2)	16	64	16.1	(5.2, 27.1)	7	35	30.0	(9.4, 50.6)	9	29
6-11 months	20.0	(11.3, 28.7)	14	61	26.3	(18.6, 34.1)	9	32	13.0	(0.2, 25.7)	5	29
12-23 months	25.9	(20.1, 31.7)	53	207	29.9	(20.3, 39.4)	27	92	22.3	(14.8, 29.9)	26	115
2-4 years	22.7	(19.3, 26.1)	158	693	23.2	(18.3, 28.0)	83	348	22.2	(17.5, 26.9)	75	345
All	23.1	(20.3, 26.0)	241	1025	24.2	(20.1, 28.4)	126	507	22.0	(18.2, 25.9)	115	518

By sex $p=0.4438$, by age group $p=0.8777$

Nearly one-quarter of children (23.1%) ages 0-4 years reported had a fever in the two weeks prior to survey, with no differences by age group. For children who had a fever in the two weeks prior to survey, caregivers were asked if they received treatment. Data are presented in Table A37.

Table A41 Children < 5 years in the household whose caregivers sought advice or treatment for the fever from any source

Age Group	All Children (N=241)				Female Children (N=126)				Male Children (N=115)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
0-5 months	79.0	(70.7, 87.3)	13	16	70.9	(70.9, 70.9)	6	7	84.9	(84.9, 84.9)	7	9
6-11 months	77.7	(56.8, 98.6)	10	14	83.2	(55.1, 100.0)	7	9	65.4	(0.0, 100.0)	3	5
12-23 months	88.8	(80.3, 97.3)	46	53	89.0	(74.1, 100.0)	24	27	88.5	(79.2, 97.7)	22	26
2-4 years	78.8	(71.8, 85.8)	123	158	80.3	(69.5, 91.1)	67	83	77.2	(68.7, 85.8)	56	75
All	81.0	(75.6, 86.4)	192	241	82.2	(73.9, 90.5)	104	126	79.7	(73.1, 86.3)	88	115

By sex $p=0.5990$, by age group $p=0.4368$

Eighty-one percent of children received treatment from any source. Among children treated, caregivers were asked if the children received various types of treatments: anti-malarials, antibiotics, paracetamol / Panadol / acetaminophen, or others. Data are summarized in Table A38.

Table A42 Children < 5 years in the household with a fever in the two weeks before the survey who received treatment, by treatment type

Age Group	All Children (N=240)				Female Children (N=125)				Male Children (N=115)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
Anti-malarials	10.7	(6.7, 14.8)	28	240	10.1	(4.8, 15.4)	14	125	11.5	(5.8, 17.1)	14	115
Antibiotics	6.2	(2.4, 10.0)	13	240	8	(2.0, 13.9)	8	125	4.1	(0.1, 8.2)	5	115
Paracetamol, Panadol, acetaminophen	30.5	(23.9, 37.1)	75	240	30.2	(21.3, 39.1)	40	125	30.8	(21.5, 40.1)	35	115
Other	8.6	(5.1, 12.0)	22	240	10.2	(4.6, 15.7)	13	125	6.8	(3.1, 10.6)	9	115

Thirty-one percent of children received paracetamol / Panadol / acetaminophen; only 11 percent received anti-malarials. Data are presented by treatment type, by age group, in Tables A39-A41. Age differentiations should be interpreted with caution, considering confidence intervals, due to small sub-group sizes.

Table A43 Children < 5 years in the household with a fever in the two weeks before the survey who received anti-malarials

Age Group	All Children (N=240)				Female Children (N=125)				Male Children (N=115)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
0-5 months	12.1	(0.0, 25.0)	2	16	0	--	0	7	21.1	(21.1, 21.1)	2	9
6-11 months	31.6	(31.6, 31.6)	4	14	29.5	(29.5, 29.5)	3	9	36.1	(36.1, 36.1)	1	5
12-23 months	7.5	(0.4, 14.5)	4	53	2.4	(0.0, 7.6)	1	27	13.8	(4.1, 23.5)	3	26
2-4 years	10.1	(5.2, 15.0)	18	157	11.5	(4.6, 18.3)	10	82	8.6	(2.2, 15.0)	8	75
All	10.7	(6.7, 14.8)	28	240	10.1	(4.8, 15.4)	14	125	11.5	(5.8, 17.1)	14	115

Table A40 Children < 5 years in the household with a fever in the two weeks before the survey who received antibiotics

Age Group	All Children (N=240)				Female Children (N=125)				Male Children (N=115)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
0-5 months	7.5	(7.5, 7.5)	1	16	0	--	0	7	13	(13.0, 13.0)	1	9
6-11 months	0	--	0	14	0	--	0	9	0	--	0	5
12-23 months	8	(2.4, 13.5)	4	53	12.8	(12.8, 12.8)	3	27	2	(2.0, 2.0)	1	26
2-4 years	5.9	(1.1, 10.8)	8	157	7.6	(0.0, 15.7)	5	82	4.2	(0.0, 9.5)	3	75
All	6.2	(2.4, 10.0)	13	240	8	(2.0, 13.9)	8	125	4.1	(0.1, 8.2)	5	115

Table A44 Children < 5 years in the household with a fever in the two weeks before the survey who received Paracetamol, Panadol, or acetaminophen

Age Group	All Children (N=240)				Female Children (N=125)				Male Children (N=115)			
	W %	95% CI	n	N	W %	95% CI	n	N	W %	95% CI	n	N
0-5 months	22.6	(14.3, 30.9)	5	16	42.2	(42.2, 42.2)	4	7	8.1	(8.1, 8.1)	1	9
6-11 months	34	(13.1, 54.9)	6	14	29.5	(29.5, 29.5)	3	9	44.2	(0.0, 100.0)	3	5
12-23 months	29.1	(13.8, 44.4)	14	53	25.3	(8.3, 42.2)	7	27	33.8	(21.7, 45.9)	7	26
2-4 years	31.3	(23.1, 39.5)	50	157	31.3	(20.4, 42.1)	26	82	31.3	(20.8, 41.9)	24	75
All	30.5	(23.9, 37.1)	75	240	30.2	(21.3, 39.1)	40	125	30.8	(21.5, 40.1)	35	115

