
THE WELL BEING OF ORPHANS AND VULNERABLE CHILDREN AND THEIR HOUSEHOLDS IN FOUR DISTRICTS OF MOZAMBIQUE

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Scientific Team: Godfrey Biemba, MB ChB, M.Sc.
Center for Global Health and Development

Candace Miller, ScD, MHS
Center for Global Health and Development

Jonathon Simon, DSc, MPH
Center for Global Health and Development

Maria Francisca Sales Lucas, BSW
Ministry of Women and Social Action (MMAS)

Luís António Guerreiro Revés
Global Surveys Cooperation (GSC) Research

Local Research Coordinator: Nair Teles, PhD
Universidade Eduardo Mondlane

Analytic Team: Candace Miller, Elizabeth Henry, Jacqueline Stone
Center for Global Health and Development

Project Manager: Abanish Rizal, MPH, MBA
Center for Global Health and Development

Contact information: Godfrey Biemba
Center for Global Health and Development, Boston University
801 Massachusetts Ave, Crosstown Center 3rd Floor,
Boston, MA 02118, USA
biemba@bu.edu

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ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
BU	Boston University
CGHD	Center for Global Health and Development
EA	Enumeration Area
GoM	Government of Mozambique
GSC	Global Surveys Corporation
HH	Household
HIV	Human Immune Deficiency Virus
INE	Instituto Nacional De Estatistica(Natitional Statistical Institute)
IRB	Institutional Review Board
M&E	Monitoring and Evaluation
MICS	Multiple Indicator Cluster Survey
MMAS	Ministério Da Mulher E Da Acção Social (Ministry Of Women And Social Action)
OVC	Orphans and Other Vulnerable Children
USAID	United States Agency for International Development

DEFINITIONS

Eligible Household	A household with children aged 0-17 years.
Enumeration Area	The smallest geographical unit in the sample design of this Survey. In rural areas it comprises between 80 and 100 households translating into about one to two adjacent villages and in urban areas between 100 and 150 households.
Head of Household	The person recognized as the head by other household members, who is usually responsible for supporting the household.
Household (HH)	Consists of one person or group of persons, whether or not linked with bonds of familiarity, living in the same dwelling unit, which share the basic needs of food and lodging.
Member of Household	A person living (eating and sleeping) in the household; may be present or absent at the time of interview.
Orphan	A child aged under age 18, who has lost one or both parents
Poor Child	A child living in a household categorized as poor, based on an asset index
Poor Household	Households that scored in the bottom quintile in an asset index
Severe food insecurity	When a child is reported to have gone a day and a night without food more than three times in the previous four weeks
Orphans and Vulnerable Children (OVC)	Children who are Orphaned (maternal, paternal, double) or living with a chronically ill caregiver, or are themselves chronically ill during the year preceding the survey.

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ABSTRACT

Background

Despite major efforts and investments to support orphans and vulnerable children (OVC) in Mozambique, few studies have examined the situation of OVC and their households and assessed whether programs are meeting the needs of these vulnerable populations. We conducted this study to generate empirical evidence on the situation of OVC and their households and the services that they receive in order to help GoM and partners improve the effectiveness of OVC programs and policies in the context of limited resources and widespread need.

Methods

The study was conducted in the districts of Marracuene, Katembe, Dondo, and the administrative post of Natikire in Mozambique. We conducted a household survey of 1,759 households with 5,726 children aged 0-17 years; focus group discussions (FGDs) with caregivers of OVC; in depth interviews with local key informants such as village chiefs and community leaders; and in-depth interviews with children and their caregivers. We examined shelter, health, food security and nutrition, legal protection, education, and psychosocial outcomes among children and we measured differences in these outcomes based on whether households care for OVC and on poverty status. We also examined whether children and families received support services, the types and frequency of services received, and how organizations implement OVC programs. This study did not focus solely on PEPFAR funded OVC programs, but inquired about all existing OVC programs in these areas.

Results

Our results reveal disparities in outcomes in food security, nutritional status, shelter, health, psychological wellbeing, and education based on both poverty and OVC status. For example, among children under five years old, poor OVC households were more than twice as likely to have a child go hungry a day and night compared to poor non-OVC households. These children were twice more likely to go to bed hungry and more than twice as likely to go to school hungry compared to poor non-OVC respectively. Among 5-11 year olds, poor OVC were more likely to be behind in grade-for-age compared to poor non-OVC and more than twice as likely compared to non-poor, non-OVC. In logistic regression models, poor OVC were 2.7 times more likely to be out of school compared to non-poor, non-OVC.

With the exception of households that received support for birth registration, less than 10% of needy households received any support during the twelve months preceding the survey. Also, the support did not seem to target the children and households in the worst circumstances. Interviews and focus group discussions with caregivers and community members revealed that few children and households receive any type of support. While there are OVC support services, the organizations generally provide services to a small number of children and families on a regular basis. Interviews with OVC service providers revealed low levels of program and M&E knowledge.

Conclusions

The combined OVC and poverty-based disparities documented in this report are severe, such that poor orphaned and vulnerable children live difficult lives and face a bleak future without adequate food, shelter, health, education and even hope. We offer recommendations to policymakers, donors, service providers, and other stakeholders.

EXECUTIVE SUMMARY

Introduction

One of the major impacts of the AIDS pandemic is the growing number of orphaned and other vulnerable children (OVC). In 2005, 20% of the 1.6 million orphans in Mozambique were orphaned due to HIV/AIDS (1,2). According to a 2006 estimate from the Ministry of Women and Social Welfare (MMAS), approximately 1.1 million OVC were considered to be in dire need of support (3).

In response, the Mozambican government through the Ministry of Women and Social Action has been implementing the National Plan of Action (NAP) with three main objectives: (i) to create a protective environment that reduces the impact of HIV/AIDS on OVC; (ii) to strengthen the capacity of the Ministry and its partners and (iii) to strengthen family and community capacity to care for and protect OVC. Additionally, the United States President's Emergency Plan for AIDS Relief (PEPFAR) obligated \$17.5 million to OVC support in Mozambique during the fiscal year 2010 (4, 5).

Despite major efforts and investments to support OVC, few studies have examined the situation of OVC and their households and assessed whether programs are meeting the needs of these vulnerable populations. Thus, we conducted this study to generate empirical evidence on the situation of OVC and their households and the care and support services that they receive in order to help MMAS and partners develop effective programs and policies in the context of limited resources and widespread need. We also aimed at establishing a cohort of children and their households to follow in future evaluation research where we can measure the impact of services provided to OVC and vulnerable households.

Methods

The Center for Global Health and Development (CGHD), in collaboration with Global Surveys Corporation (GSC) Research and the Ministry of Women and Social Action (MMAS), conducted a mixed method study of OVC and their households in four Districts of Mozambique. Fieldwork was conducted in the districts of Marracuene, Katembe, Dondo, and the administrative post of Natikire in Mozambique.

We used both quantitative and qualitative methods to measure outcomes and gain rich insights into child and household experiences and the processes by which OVC organizations provide support. First, we conducted a quantitative household survey of 1,759 households with 5,726 children aged 0-17 years. Next, we conducted qualitative data collection including focus group discussions (FGDs) with caregivers of OVC; in depth interviews with local key informants such as village chiefs and community leaders; and in-depth interviews with children and their caregivers. We examined shelter and care, nutrition, health, education, child protection, and psychosocial outcomes among children and we measured differences in the household food

security based on the households' poverty status and whether they care for OVC. We also examined whether children and families received support services, the types and frequency of services received, and how organizations implement OVC programs.

Results

We disaggregated household level data in order to show the differences between 1) poor households taking care of OVC, 2) poor households not taking care of OVC, 3) non-poor households with OVC, and 4) non-poor households without OVC. This categorization allows us to demonstrate disparities among households and highlights the most vulnerable households. A child is classified as an orphan if he/she has survived one or both parents; as an OVC if he/she meets the orphan definition, is chronically ill, or has a chronically ill caregiver. The household (and family) is characterized as poor if it scores in the lowest quintile based on an asset ownership index.

The results show that households in the study areas generally have a low socio-economic status whereby one in four caregivers had no schooling, and a third had only attended school up to lower primary level. Only 9% of caregivers have formal employment, 59% have informal employment, 23% focus on childcare, and 5% were unemployed. Asset ownership was limited with poor OVC households owning the most limited assets. Food security was such that 60% of all household heads frequently worried there would not be enough food for the household.

Within this context, we found serious disparities between households based on poverty status and whether they care for orphans and vulnerable children. In fact, for each of the household level wellbeing measures, there were disparities such that poor households caring for OVC had a worse situation than all other households. Among poor households, poor OVC households were more likely to report a child going to bed hungry more than twice in the 4 weeks preceding the survey compared to poor non-OVC households (46% versus 29%).

Regarding food security, caregivers in poor households with OVC were almost twice (46% versus 25%) more likely to report a child going to bed without food more than two times in the 4 weeks prior to the survey compared to non-poor households with OVC. Lastly, a combination of household poverty and taking care of an OVC showed even more glaring food security disparities. Respondents from 31% of poor households with OVC versus 13% of non-poor households without OVC reported that a child had gone a day and night without food more than two times in the past 4 weeks before the survey.

We also disaggregated child level data to illustrate the OVC- and poverty-based disparities and highlight the most vulnerable children at different age groups. For most outcomes, we did not find gender disparities, but there were differences between children based on location (district). Further we modeled outcomes based on OVC and poverty status, gender, age, and the child's district to further explain the relationships. This combined approach enables stakeholders and implementers to target appropriate services to those with the greatest need.

In the child level analysis, we found that out of the total orphan population, which was 8% of the 1,988 children, only less than 1% were double orphans. Overall, we noted that poor OVC have worse outcomes compared to poor non-OVC and non-poor OVC.

- For example, for food security and nutrition:

- Among children under the age of 5 years, 26% of caregivers in poor OVC households reported a child going hungry a day and night more than three times four weeks prior to the survey compared to only 11% of poor non-OVC households.
- Further, 26% of poor OVC households reported a child under five years going hungry a day and night more than three times four weeks preceding the survey compared to only 13% of non-poor OVC households.
- Like the household data, child level data also shows large disparities in household food security and nutritional status of children under five years based on the combined effect of OVC status and household poverty.
- Children under the age of five years living in a poor OVC household were found to be more than three times (26% versus 7%) and twice (26% versus 13%) as likely to go hungry a day and night more than two times in the four weeks prior to the survey when compared to those living in non-poor non-OVC and non-poor OVC households respectively. These children were twice more likely to go to bed hungry (10% versus 5%) and more than twice likely to go to school hungry (18% versus 7%) compared to poor non-OVC respectively.
- Among under five year olds, 19% of poor OVC were underweight compared to 13% of non-OVC and non-poor.
- Among 12-17 year olds, poor and non-poor OVC had increased odds of being stunted.
- There were disparities in chronic health problems, which is not surprising given that one definition of vulnerability includes a child being chronically ill.
- Additionally, among 0-4 year olds, poor OVC were 2.6 times more likely to not use a bed net compared to non-OVC and non-poor.
- For birth certificates, among 0-4 year olds, poor OVC were about 40% less likely than other children to have a birth certificate. There were no gender disparities.
- For education outcomes:
 - Among 5-11 year olds, poor OVC were more likely to be behind in grade for age than poor non-OVC (17% versus 11%) and twice more likely to be so compared to non-poor, non-OVC (17% versus 7%). Further, 87% of non-OVC, non-poor children are enrolled in school compared to 72% of poor OVC. In logistic regressions, poor OVC had 2.7 times the odds of being out of school compared to non-poor non-OVC.
 - Among 12-17 year olds, there was no significant difference between poor OVC and poor non-OVC in terms of school enrollment (80% versus 82%). However, poor OVC were twice more likely to be absent from school more than once in the week preceding the survey than poor non-OVC (14% versus 7%). Further 27% of non-OVC, non-poor children are behind in grade compared to 49% of poor OVC children. Poor non-OVC children had 2.1 times the odds of being out of school as non-poor non-OVC. Poor OVC had double the odds and poor non-OVC had 1.65 times the odds of being behind in grade compared to non-poor, non-OVC. We did not find gender disparities in enrolment or being at the right grade for age.
 - Many of the children that are out of school have left school for financial reasons. Although children without uniforms are sent home from school, only 1-3% of children receive uniforms. Moreover, many children are attending school without enough food in their bellies. Still, the main support provided to children and families is school books and pencils.
- For psychosocial outcomes:

- The scores from the Strengths and Difficulties tool indicate that many children experience conduct problems, emotional distress and social problems and yet do not receive psychosocial services. Improving children’s mental health may require improving both the quality of psychosocial support services as well as empowering the households with various forms of household economic support. Among 5-11 year olds, there were few disparities in psychosocial wellbeing between poor OVC and poor non-OVC. For example 16% of poor OVC versus 11% of poor non-OVC had emotional problems, whereas 10% of poor OVC versus 15% of poor non-OVC had social problems. However, 16% of poor OVC had serious emotional problems compared to 7% of non-poor, non-OVC. There were gender disparities such that boys aged 5-11 and girls aged 12-17 years had the worse outcomes. Five to eleven year old boys were more likely to have conduct, peer and social problems compared to girls of the same age. Twelve to seventeen year old girls were 44% more likely to report emotional problems, 57% more likely to report peer problems, and 58% more likely to report conduct problems, compared to boys of the same age irrespective of OVC or poverty status. The combination of poverty and OVC was an independent predictor for social problems among 12-17 year olds.
- Using the Child Hope Scale among children 12-17 year olds, poor OVC were more likely to report low hope compared to poor non-OVC (59% versus 51%). In models, poor OVC had 2.6 times the odds of reporting that they had no hope for the future compared to non-poor, non-OVC.
- Lastly, from the quantitative data, location was an independent and significant predictor of a number of various indicators of household and child level wellbeing. For example, children in Natikire and Dondo were less likely to have a blanket and children in Katembe were more likely to have a blanket than children in Marracuene. Children in Natikire were three times more likely as children in Marracuene to be stunted. Children in Natikire and Dondo were more likely than children in other districts to have emotional problems.
- From qualitative data, OVC caregivers described a lack of financial resources especially for food and education of their children. Caregivers across all four sites described in detail how there have been no or very little support to help them cope with caring for OVC.
- Our interviews with OVC service providers revealed a commitment to children and families. However, service providers described resource limitations in the face of great need and the challenges of relying upon community volunteers. They also demonstrated extremely low technical and organizational capacity. The majority of organizations were unable to clearly articulate their objectives, describe how they identify which children and families should participate in programs, link their objectives to their program inputs, activities, and outputs, or determine the program’s outputs and impacts.
- With the exception of households that received support for birth registration, less than 10% of needy households received any support during the twelve months preceding the survey. Also, the support did not seem to target the children and households in the worst circumstances. In fact, non-poor (or less poor) OVC received more than the poor/poorest OVC.
- Interviews and focus group discussions with caregivers and community members revealed that few children and households received any type of support. OVC service organizations in

the study areas generally provided services to a small number of children and families on a regular basis.

Conclusion and Recommendations:

In our quantitative interviews with 1,759 households and 5,690 children, we found many children and families in a desperate situation, facing chronic food insecurity, inadequate housing, and lacking basic needs.

Throughout the quantitative data, it is clear that OVC-based disparities in health, nutrition, education, emotional well-being, food security, housing and poverty persist. The combined OVC and poverty-based disparities are particularly severe such that poor OVC live difficult lives and face a bleak future without adequate food, shelter, health, education and even hope.

We found and documented that few children and families receive any type of support. While there are OVC support services, the organizations generally provide services to a small number of children and households on a regular basis. Respondents from OVC support organizations often told us they provided the only services in the area.

We offer the following recommendations in light of this study. We suggest that stakeholders:

- Examine the disconnect between the needs of households and OVC and the services being offered. This study documents the desperate situation of many households and children with regards to food insecurity, poverty, inadequate shelter, health, educational and psychosocial problems. Current support services do not adequately address these challenges. The data underscores the fact that household financial constraints are a serious problem for families. We therefore recommend that more focus be on household economic strengthening activities. Within the household economic strengthening domain, stakeholders should consider income support.
- Increase the technical capacity within OVC support organizations, including connecting goals and objectives to program inputs and activities and to outcomes and impacts. Support organizations require more oversight, training in program monitoring, and tools to measure impacts. They also need assistance to manage volunteers or paraprofessionals.
- Understand that many families feel forsaken as they wait for assistance. Many families expressed frustration that their names were listed and they were promised services or support that did not materialize. Many families are in grave need of support.
- Reconsider the OVC response strategy employed in Mozambique because of the low capacity within support organizations, the difficulty in managing volunteers, and targeting services to the most vulnerable households in the context of widespread need, the fact that current interventions may not result in the desired impacts.
- Families and communities should be involved in thinking through the best way to reach the vulnerable children and families in a way that meets government and donor objectives.
- Provide greater government and donor oversight and monitor programs to ensure that services reach children and families.
- Examine these results against other available data and discuss how these findings are consistent with existing knowledge or data. What is new or different? Consider how this

data can inform program implementation, policymakers, and donors. Also consider what additional analyses, using this data, would be helpful to inform the dialogue.

- Go and donors should commit to on-going monitoring and evaluation for continued learning and accountability so that better programs and services are provided for vulnerable children and their households. The USAID Evaluation policy (at <http://www.usaid.gov/evaluation/>) provides helpful advice to guide stakeholders in thinking through how to integrate evaluation activities into program planning in order to improve program performance, reduce costs, increase benefits, confirm utility of policy/project, help program implementers make changes or improvements, generate support or influence policy decisions, and ensure a focus on households that face the combined effect of caring for OVC and dealing with abject poverty.

BACKGROUND AND STUDY OBJECTIVES

Mozambique faces many challenges posed by the growing impact of HIV and AIDS (1). According to the 2009 INSIDA survey (6) HIV prevalence was estimated at 11.5 % among Mozambicans aged 15-49 years; with the prevalence higher among women (13.1%) than men (9.2%). The prevalence was higher in urban areas (15.9%) compared to rural areas (9.2%). One of the major impacts of the HIV and AIDS pandemic is the growing number of orphaned and other vulnerable children (OVC). The Mozambican government defines an *Orphan* as a child aged between 0 and 18, who has lost one or both parents. Vulnerable children include:

- Children in households below the poverty line
 - Children in households headed by children, youth, the elderly or women;
 - Children in households where an adult is chronically ill;
 - Children affected or infected by HIV&AIDS;
- Street children;
- Children living in institutions (ex: orphanages, prisons, mental health facilities);
- Children in conflict with the law (ex: children wanted for petty crimes);
- Children with disabilities;
- Children victims of violence;
- Children victims of sexual abuse and exploitation;
- Children victims of trafficking;
- Children victims of the worst forms of child labour
- Children who are married before the legally defined age;
- Refugee and displaced children.

In spite of the broad definition of a vulnerable child outlined above, however, the Mozambican government in the 2006-2009 National Plan of Action prioritized children who are **below the poverty line** in one of the following categories:

- Orphans (maternal, paternal and of both parents);
- Children infected and affected by HIV&AIDS;
- Children living in households headed by children, women, and the elderly;
- Children living in households with a chronically ill adult.

In 2005, 20% of the 1.6 million orphans in Mozambique were orphaned due to HIV/AIDS (1,2). According to the Multiple Indicator Survey (3) 17% of the 34,434 children surveyed were either orphaned or vulnerable due to AIDS. MICS defined a child as an OVC if they have lost one of their parents, or one of their parents is chronically ill, or if an adult (18-59 years old) has died in the household (after being chronically ill) or if he/she was chronically ill during the year that preceded the survey. According to the MICS, the probability of a child being an OVC increases with age, rising from 8% among children aged zero to four, to 31% among children aged 15 to 17 years. The proportion of OVC is higher in urban areas (20%) than in rural areas (16%). Geographically, Gaza province has the highest proportion of OVC (31%) followed by Sofala (20%), Maputo, Manica, and Zambezia (19%). Fifteen percent of OVC lived in households that were in the lowest wealth quintile and 21% in the households that were in the highest quintile for wealth.

According to a 2006 estimate from Ministry of Women and Social Welfare (MMAS), approximately 1.1 million OVC are considered to be in dire need of support (3). And the 2008 MICS found that 22% of households with OVC received some type of external support.

The Mozambican government through the Ministry of Women and Social Action has been implementing the National Plan of Action for orphans and other vulnerable children (NAP) with three main objectives: (i) to create a protective environment that reduces the impact of HIV/AIDS on OVC; (ii) to strengthen the capacity of the ministry and its partners and (iii) to strengthen family and community capacity to care for and protect OVC. Additionally, through the United States President's Emergency Plan for AIDS Relief (PEPFAR), Mozambique receives support for a comprehensive HIV/AIDS prevention, treatment and care programs (3). During the fiscal year 2010, the US Government obligated \$17.5 million towards OVC support for approximately 237,200 children (4, 5).

Despite these major investments by the government of Mozambique (GoM) and the US government (USG) to support OVC, few studies have examined the situation of OVC and their households to determine whether and how programs impact OVC and their households. While some situational analyses and cross-sectional surveys have been conducted, there has been no longitudinal follow up of cohorts of children and their households to measure the impacts that programs have over time on both OVC and households.

The Center for Global Health and Development (CGHD) at Boston University in collaboration with Global Surveys Research (GSC), Eduardo Mondlane University (EMU), and the Ministry of Women and Social Action (MMAS) conducted mixed methods, baseline study to understand the situation of OVC and their households in four of 128 districts in Mozambique. We measured the following: 1) differences in OVC children with regard to health, education, and psychosocial wellbeing; 2) differences in household food security and poverty between types of households; and 3) whether children and families received OVC support services. The objective of this study was to provide baseline data to assist the Mozambican government and other stakeholders to better understand the situation of households caring for orphans and other vulnerable children.

The study also aimed at establishing a cohort of children in families which can be followed over time to allow new child and household programs and policies to be evaluated more rigorously. Subsequent to the baseline study, the same children and their households should be followed for one year to measure changes in their wellbeing over time. The longitudinal study could provide the Mozambican government with information and evidence on the effectiveness of programs within the study areas and identify which programs have the greatest potential to positively impact households caring for OVC. This study did not focus solely on PEPFAR funded OVC programs, but inquired about all existing OVC programs in these areas.

3.0 Design and Methods

General Approach

The study consists of three different components:

- *An exploratory qualitative study* to understand the local concepts, beliefs and practices associated with orphans and other vulnerable children as well as concepts of household asset ownership and poverty.

- *A quantitative baseline survey, where* households were sampled from four districts in Mozambique: Marracuene, Katembe, Dondo, Natikire districts, using four structured questionnaires.
- *Qualitative data collection for impact assessment, through* Focus Group Discussions, In-depth Interviews and Personal Narratives.

This report describes the baseline findings of a longitudinal observational cohort.

Instrument development, specific methods and procedures

Quantitative Instruments

We carried out a cross-sectional baseline household survey with GPS geo-location of all sampled households. We utilized four quantitative survey instruments designated as modules 1-4. These instruments allowed us to collect quantitative data on households and children 0-4 years, 5-11 years, and 12-17 years old respectively. The survey instruments were adapted from existing questionnaires used with similar populations in Southern and Eastern Africa. They were revised and expanded to capture the range of indicators needed to assess child wellbeing and characteristics of households of caregivers, including each of the core PEPFAR program areas: (a) nutritional status, (b) shelter and care, (c) child protection, (d) physical health, (e) psychosocial wellbeing, and (f) education. Module 1 was a household questionnaire administered to the caregiver of the children in each household. Modules 2 & 3 were administered to caregivers and designed to assess the wellbeing of children 0-4 and 5-11 year olds respectively. The final module was a questionnaire administered directly to 12-17 year olds. These instruments can be accessed on request from the corresponding author. For the assessment of psychosocial wellbeing we utilized various validated psychometric instruments briefly described below:

Strengths and Difficulties Questionnaire (SDQ) is a 25-item behavioral screening questionnaire. The items are divided between 5 scales of 5 items each and yield scores for conduct problems, hyperactivity, emotional symptoms, peer problems, and prosocial behavior. We used the self-report version for ages 11-17 for this study. SDQ has been used in different population samples to screen for behavioral problems in children and adolescents and has been documented to have good psychometric properties (10).

Children's Hope Scale (CHS) is a 6-item self-report questionnaire assessing children's dispositional hope (12). Total scores can range from six to 36. A score of 29 or higher indicates high hope and a score of 21 or lower indicates low hope. The CHS has demonstrated satisfactory reliability and validity among children from 8 to 16 years of age. Although the CHS was initially developed and validated in the United States, the tool has been used in African settings. The CHS has been translated in various languages; and there is a validated Portuguese version (14).

Qualitative Instruments

The qualitative instruments included a guide for case study narratives with caregivers, a key informant guide, a focus group discussion guide, and a semi-structured interview guide for OVC program officers. Below, we provide a brief description of each qualitative instrument. All instruments were translated into Portuguese. They were pre-tested and revised accordingly before application.

Narratives

Caregivers of children ages 12-17 years old were interviewed qualitatively in order to collect information on caregiver challenges, coping strategies, resilience, receipt of services and the perceived impact of OVC support services.

The Key Informant Interviews Guide

The key informant guide was administered to village chiefs, secretaries, and other influential community leaders. The aim was to understand the local concepts, constructs, knowledge, attitudes and practices regarding orphans and vulnerable children (OVC). A special key informant guide was developed for OVC program officers to gain a rich, in depth understanding of whether, why and how services impacted children and households.

Focus Group Discussion Guide

This guide was used to discuss with caregivers of OVC the quality of services received, care challenges, coping strategies, and recommendations for improved services.

Study Sites, Sample Size Calculations, and

Sampling

The study was conducted in four districts of Mozambique: Dondo, Marracuene, Katembe, and Naticire (starred on map below). The study sites were purposefully selected to capture the situation of children and families in different provinces across the country and to include geographic areas with high OVC prevalence.

In the Central Region of Mozambique, we selected Sofala Province which has the second highest OVC prevalence rate in the country at 20%. Within Sofala, we selected Dondo district.

In the Southern region of Mozambique, we selected Maputo Province where OVC prevalence is 20%. In Maputo Province, we selected Marracuene District and Katembe in Maputo City. Maputo province has an OVC prevalence of 19%, which is third highest in the country.

In the North Eastern region of Mozambique, we selected Nampula Province and the administrative post of Naticire. Nampula has a slightly lower prevalence of OVC at 13%. Finally, for logistical reasons, we selected these study areas because our local data collection partner, GSC, had offices in these locations; we understand though that this may have introduced some selection bias in the study.

For the quantitative survey, the sample size to examine the situation of children, including orphans and OVC was based on calculations for selecting a representative sample of a larger population and was calculated using sample size estimators in Stat Calc. For the household



survey the sample size calculation was based on the estimated population of the four districts (72,636 households, 163,200 children in total) and the estimated number of children under 18 years per household in each district. Using a 95% confidence interval, a 4% standard error, an average district wide orphan hood rate of 29%, and a variable response rate between 85 to 95%; we estimated requiring a sample size of 1,924 households to yield data on approximately 6,378 children. The sampling frame was the list of enumeration areas (EAs) from the mappings of the 2007 census by INE. The four areas for our study were divided into 86 EAs. The sampling unit was each household and the unit of analysis was the household head and each child habitually resident in the household. In Nampula, we randomly selected 24 households per EA, in Sofala (Beira) 20 households per EA, in Maputo Province 22 households per EA, and Maputo City 24 households per EA. To be included in the sample, households had to have children.

We employed a multi-stage sampling process whereby, first, enumeration areas were selected. Second, within sampled enumeration area, we randomly selected households. Third, within each household, we asked for the caregiver or household head to respond to the questionnaire for the household. All children within the selected household were included in the study. The probability of selection of a sampling unit in each specific step was known and was different from zero allowing for estimating the accuracy of the sampling results.

The Quantitative Household Survey contained sections on food security, poverty, child health, child development, psychosocial wellbeing, health and other issues. The final sample size yielded 1759 household surveys, 1988 surveys of 0-4 year olds, 2429 surveys of 5-11 year olds, and 1273 surveys with 12-17 year olds.

For the qualitative component of the study, we list the study activities, sample size, and how the study participants were selected:

- We conducted 40 Key Informant Interviews (KIs) with Chiefs, Village Headmen, teachers, community development officers, social workers, elderly men and women taking care of OVC to understand local concepts of orphans and poverty. Key informants were selected in each study location. The total number of interviews was purposefully distributed across the different Administrative Posts in order to have a wide diversity of respondents.
- We conducted 20 participatory community poverty ranking activities. We identified the "chefes de quarteirão", i.e. community leader, within the blocks where the quantitative survey was conducted and asked a series of questions about which households are poor and non-poor and local indicators of poverty. This activity also informed the development of the asset index, which is the poverty measure used in this study. Once the asset index was created, we returned to the poverty ranking data for confirmation of the validity of the index.
- We conducted 40 case study narratives with the caregivers of 12-17 year olds. Once again, we selected households from the quantitative survey where respondents stated that they received some OVC support service. We then randomly selected 10 households from each of the four study district/administrative posts.
- We conducted 8 key informant interviews with program officers at OVC organizations. We obtained a listing of all OVC Community Based Organizations (CBOs) known to be working within the study areas and asked key informants for the names of CBOs. We interviewed organizations that were available and willing to participate in the study.

- Finally, we conducted 16 focus group discussions (FGDs) with OVC caregivers. We selected participants for the FGD participants in order to include a wide diversity of respondents and ensure that respondents were distributed across Administrative Posts.

Selection and training of Interviewers

The interviewers were selected from a pool of experienced research assistants. Although most of the research assistants were familiar with quantitative surveys, they all participated in a rigorous five-day training consisting of lectures, discussion, role plays and pilot testing. The research assistants were trained in general quantitative and qualitative research methods, interview techniques, the study roster and sampling plan, and protection of human participants in research. The research assistants were required to pass a test on the ethical treatment of respondents and human subjects protection. The training was mainly in Portuguese and partly in English with Portuguese translation.

Data Collection

The data collection instruments were pre-tested prior to data collection. The field team consisted of the data collectors or interviewers, a supervisor, and an overall controller who ensured that the protocol was followed and that data was of high quality.

Data Management and Analysis

Quantitative: Data entry was completed using CSPro software. We built customized data entry screens with range and consistency checks, and logic to ensure high quality data. The data entry team in Mozambique conducted the initial data cleaning and the Boston team conducted the final data cleaning. Errors were validated and reconciled. We used SAS statistical software for quantitative analysis.

OVC and poverty status: For the purposes of this study, an OVC is an orphan (maternal, paternal, double) or a child living with a chronically ill caregiver, or a child who is chronically ill during the year preceding the survey. Poverty is based on an asset index created from a principle components analysis. Households that scored in the lowest asset quintile were categorized as poor. We also examined reported household income. The asset quintile and household income measures were highly correlated suggesting that either variable would provide a useful measure of household poverty for the purposes of the study. Further, again, we used the poverty indicator data from the poverty mapping activities to confirm that the asset index was a measurement tool that we could confidently use to characterize households for the purposes of this study.

Frequencies and means: We disaggregated data by OVC status and poverty status in order to highlight differences and disparities between children and households. We calculated cross tabulations and means of all data by OVC and poverty status and present chi square tests for differences.

Logistic regression models: We calculated logistic regression models using Proc Survey Logistic and Proc Survey Reg in SAS. Models account for the clustering given that households are clustered in towns and villages. They are also weighted to reflect the overall population in each study area. Finally, models account for OVC and poverty status, gender, age, and district location.

Qualitative: Qualitative data was collected by trained research assistants. Transcripts were handwritten in the local language or in Portuguese and translated into English. All transcripts were reviewed and verified to ensure that the full meaning and text was correctly translated. Transcripts were analyzed in Boston, where a team worked together to develop coding themes. Transcripts were coded according to themes. Convergent and divergent themes were assessed. We used NVIVO 9 for qualitative analysis.

Ethical Considerations

Ethical approval was obtained from Boston University Institutional Review Board (BU/IRB) and the Mozambique Biomedical Ethics Committee. The BU/IRB approved consent forms were translated into Portuguese and verified and attested by a bilingual speaker.

RESULTS

The sample target was 1,924 households for the quantitative survey, out of which we reached 1759; yielding a response rate of 91%. In three of the four study areas, the response rate was 99% due to extensive preparation within communities, meetings with local leaders to introduce and explain the study, and frequent call backs. However, Dondo, the Savanna, proved difficult to reach due to bad terrain. For this area we were only able to reach 320 out of the sampled 480 households (67% response). For the qualitative work in this area we were able to interview caregivers, complete four of the targeted focus group discussions, and interview two OVC program officers.

Households

We present household demographic and economic data disaggregated into the following categories:

- a) Households with orphans or vulnerable children, and poor;
- b) Households with no orphans or vulnerable children, and poor;
- c) Households with orphans or vulnerable children, and not poor;
- d) Households with no orphans or vulnerable children and not poor.

Poor OVC households are twice as likely to be female-headed compared to non-OVC and non-poor (50% versus 25%)(Table 1). We also note that these households are more likely to be headed by widows than the non-OVC and non-poor households (15% versus 3%).

Table 1. Caregiver demographics and economic status

	All HHs N=1752	OVC and Poor HH n= 205	Non-OVC and Poor HH n=144	OVC and Non- Poor HH n=693	Non-OVC and Non-Poor HH n=710	P-value
Mean age	36	35	30	40	34	**
Female-headed %	35	50	31	41	25	***
Single %	12	17	13	11	11	*
Married / cohabit %	71	51	74	67	82	*
Divorced %	5	7	13	4	5	***
Widowed %	12	15	1	19	3	***

Key: ~p<.10;*p<.05;**p<.01;***p<.001; P-values are for chi-square trend for each variable across household type.

Poor households with OVC were more likely to be headed by an adult with no formal education compared to non-poor households without OVC (32% versus 17%) (Table 2). Further, non-poor households without OVC were more likely to be headed by adults who have had education beyond primary school level compared to poor households with OVC.

Table 2. Education level (highest grade completed) of household heads (Percentage per category)

	All HHs N=1752	OVC and Poor HH n= 205	Non-OVC and Poor HH n=144	OVC and Non- Poor HH n=693	Non-OVC and Non-Poor HH n=710	P-value
No School %	22	32	24	22	17	***
Low Primary %	32	31	29	35	29	~
Primary %	29	27	34	26	31	~
Secondary %	17	10	13	15	21	***
Post-Secondary %	2	2	0.0	2	2	

Key: ~p<.10;*p<.05;**p<.01;***p<.001; P-values are for chi-square trend for each variable across household type.

Approximately two thirds of the households were in informal employment, with only about 9% in formal employment. Among household heads that were not employed (formal or informal) about a quarter of them reported either taking care of children or doing other house chores. A greater proportion of heads of households with OVC, whether poor or not poor, were involved in informal work compared to households without OVC (Table 3).

Table 3. Main activity of household heads (Percentage per category)

	All HHs N=1756	OVC and Poor HH n= 207	Non-OVC and Poor HH n=144	OVC and Non-Poor HH n=694	Non-OVC and Non-Poor HH n=711	P-value
School %	3	2	4	2	4	~
Child care & housework %	24	23	35	21	26	***
Unemployed %	5	5	6	5	6	
Formal Employment %	9	9	6	9	9	
Informal Employment %	59	61	49	64	55	***

Key: ~p<.10;*p<.05;**p<.01;***p<.001; P-values are for chi-square trend for each variable across household type.

There were few elderly and child headed households in the study districts (Table 4). The largest proportion of child headed households was among poor households with OVC compared. In addition, poor households with OVC were more likely than other households to have an unfavorable (bad) dependency ratio where one adult cared for more than three dependents.

Disparities between households were also observed with regard to the health of the caregiver. Poor household heads with OVC were much more likely to suffer from a chronic illness and were twice more likely to be HIV positive than non-poor household heads without OVC (Table 5). We observed similar disparities in the health of the caregiver when we compared poor households with OVC to all other households.

Table 4. Household composition (Percentage per category)

	All HHs N=1759	OVC & Poor HH n= 208	Non-OVC & Poor HH n=144	OVC & Non-Poor HH n=695	Non-OVC & Non- Poor HH n=712	P-value
Elderly (65+yrs) Headed HH %	1	1	1	2	0	**
Child Headed HH %	1	4	1	0	1	***
HH with bad dependency ratio %	7	12	6	9	3	***

Key: ~p<.10;*p<.05;**p<.01;***p<.001; P-values are for chi-square trend for each variable across household type.

Table 5. Caregiver health Status (Percentage per category)

	All HHs N=1759	OVC and Poor HH n= 208	Non-OVC and Poor HH n=144	OVC and Non- Poor HH n=695	Non-OVC and Non-Poor HH n=712	P-value
Chronic Illness %	19	39	4	31	5	***
HIV Positive %	6	8	6	7	4	***

Key: ~p<.10;*p<.05;**p<.01;***p<.001; P-values are for chi-square trend for each variable across household type.

Overall, food insecurity is a major concern in the study areas; even among non-poor non OVC households. Two-thirds of all the caregivers reported having been worried that there would be insufficient food for their children more than two times during the four weeks before the survey; and almost half of the caregivers reported having been worried more than ten times during the same period. Among all households, about one in five children had gone without food a day and night more than two times in the four weeks preceding the survey (Table 6). Compared to all households and to non-poor households with no OVC, the food security situation is worse for poor households with OVC for all of the indicators. A child living in a poor OVC household was found to be more than twice as likely to go hungry a day and night more than two times in the four weeks prior to the survey than another child living in a non-poor household with no OVC (31% versus 13%).

Table 6. Food security(Percentage per category)

	All Households N=1759	OVC and Poor HH n=208	Non-OVC and Poor HH n=144	OVC and Non-Poor HH n=695	Non-OVC and Non-Poor HH n=712	P-value
Caregiver worries; no food (> 2x in past 4weeks) %	60	81	67	63	49	***
Child gone day & night with no food (>2x in past 4weeks) %	19	31	25	21	13	***
Child gone to bed hungry (>2x in past 4weeks) %	23	46	29	25	14	***
Child gone to school(>2x in past 4weeks) %	31	49	27	35	23	***
Caregiver worries; no food (> 10x in past 4weeks) %	42	58	49	45	32	***

Key: ~p<.10;*p<.05;**p<.01;***p<.001; P-values are for chi-square trend for each variable across household type.

We also assessed the sources of income for the different households. Sources of income include formal and informal employment, grants, pensions, investments, and rental income. Overall, poor OVC households were more likely to report that they had no source of income compared to all other households and average income was the least in poor OVC households (Table 7).

We also note from table 7 that non-poor OVC were accessing more grants (22%) and reported 3-4times (3,0045) the income of the poor(787) OVC on average.

Table 7. Sources of income (Percentage per category, except for average income)

	All HHs N=1759	OVC & Poor HH n= 208	Non-OVC & Poor HH =144	OVC & Non-Poor HH n=695	Non-OVC & Non-Poor HH n=712	P-value
Grant %	18	15	13	22	16	**
Any Employment %	90	89	88	89	91	~
No income %	4	8	5	4	3	*
Average Income	M 2,819	M 787	M 1,142	M 3,045	M 3,532	***

Key: ~p<.10;*p<.05;**p<.01;***p<.001; P-values are for chi-square trend for each variable across household type.

Table 8 shows that there are no clear disparities between poor OVC and poor non-OVC in terms of Asset ownership. However there are large disparities between poor OVC households and non-OVC non-poor households. For example, whereas 47% of non-OVC non-poor households reported owning chickens, only 8% of poor households with OVC reported owning chickens.

And while 19% of non-poor, non-OVC households owned a bicycle, only 6% of poor households with OVC had a bicycle.

Table 8. Assets (Percentage per category)

	All HHs N=1759	OVC and Poor HH n= 208	Non-OVC and Poor HH n=144	OVC and Non-Poor HH n=695	Non-OVC and Non-Poor HH n=712	P-value
Radio %	48	9	12	54	61	***
Mobile phone %	57	20	28	59	71	***
Chickens %	38	8	12	42	47	***
Land for agriculture %	64	46	35	73	66	***
Bicycle %	18	6	3	23	19	***
Shovel %	39	8	8	43	49	***
Hoes %	84	67	55	91	90	***

Key: ~p<.10;*p<.05;**p<.01;***p<.001; P-values are for chi-square trend for each variable across household type.

Few households received external support. The most common support received was assistance with birth registration which was reported by approximately 20-25% of households, without many differences across the household categories. In other support areas, again there was minor variation between households; except for food and other material support, where OVC poor received the same material support as all children (3% vs 3%). However, fewer poor OVC received material support than non-poor OVC (3% vs. 6%). Few (1% or less than 1%) received home maintenance or income support (Table 9). Income support included any external support such as social cash transfers, business credit/loan scheme, group/village savings, entrepreneurship training, agricultural support, provision of land, or income generating activities.

Table 9. Support received in the past year (Percentage per category)

	All HHs N=1759	OVC and Poor HH n= 208	Non-OVC and Poor HH n=144	OVC and Non-Poor HH n=695	Non-OVC and Non-Poor HH n=712	P-value
Material Support %	3	3	0	6	2	***
Income support %	1	1	0	1	0	
Birth registration %	17	19	15	18	15	
Nutrition information %	6	7	7	6	6	
Food Support %	2	0	0	4	1	***
Home Maintenance %	0	1	0	1	0	

Key: ~p<.10;*p<.05;**p<.01;***p<.001; P-values are for chi-square trend for each variable across household type.

Child Level Data

We used three instruments in order to collect the most appropriate data by age group. Thus, we present data disaggregated by age group for 0-4 year olds, 5-11 year olds, and 12-17 year olds. Within age groups, we present data disaggregated by OVC and poverty status.

The first two tables for each age group do not follow this categorization, but provide general information on orphan and vulnerable status and poverty.

Zero to four year olds (Under five year olds)

Among under 5 year olds, the majority of children lived with their mother in the household. While the majority of 0-4 year olds lived in households with fathers, poor children (54%) were less likely than non-poor children (66%) to live with fathers. Approximately 14% of children lived with a chronically ill mother and 9% of children had a chronically ill father.

Table 10. Child's parental status (< 5 year olds) (Percentage of children)

	All children n=1988	Poor children n=413	Non-poor children n=1575
Mother in household %	91	93	91
Father in household %	63	54	66
Mother sick %	14	17	13
Father sick %	9	9	9
Any parent sick	20	23	19

While 8% of children had lost one or both parents, 13% of poor children compared to 7% of non-poor children were orphaned (Table 11). A larger proportion of poor children are paternal orphans (11%) compared to all children (6%).

Table 11. Child orphan and vulnerable status (<5 year olds) (Percentage of children)

	All children n=1988	Poor children n=413	Non-poor children n=1575
Maternal orphan %	1.5	1.7	1.5
Paternal orphan %	6	11	5
Double orphan %	0.3	0.5	0.3
Any orphan %	8	13	7
Non-orphan %	92	87	93
Vulnerable (caregiver or child ill)	26	34	24

Reports of food insecurity for children are consistent with household level data on food insecurity and the situation is particularly bad for poor OVC. Among caregivers of OVC in poor households, 62% reported that they frequently worried there would not be enough food for the child and 26% of these children were reported to have gone a day and night without food three or more times in the 4 weeks preceding the survey.

Table 12. Percentage of children with food insecurity and vulnerability for 0-4 year olds

	OVC and Poor n= 142	Non-OVC and Poor n=271	OVC and Non-Poor n=383	Non-OVC and Non- Poor n=1192	P-value
Caregiver worries not enough food 3+ times in past 4 weeks %	62	54	50	36	***
Child went day and night without food 3+ times in past 4 weeks %	26	11	13	7	***
Child went to bed hungry 3+ times in past week %	10	5	6	3	***
Child went to school hungry 3+ times in past week %	18	7	17	7	***

Key: ~p<.10;*p<.05;**p<.01;***p<.001; P-values are for chi-square trend for each variable across household type.

The pattern of food insecurity remains in logistic regression models (Table 13) where we modeled the likelihood of a caregiver reporting that he or she worried about not having enough food. Poor OVC had 2.6 times the odds, poor non-OVC had 2 times the odds, and non-poor OVC had 1.7 times the odds that caregivers worried that there would not be enough food three or

Table 13. Logistic regression model for likelihood that the caregiver worried that child would not have enough food 3 or more times in past 4 week before survey (n=1978)

Fixed Effects	OR	95% CI
Childs orphan and poverty status (reference group is Non-OVC, non-poor)		
OVC poor	2.6***	1.7-3.9
Non-OVC poor	2.0***	1.4-2.8
OVC non-poor	1.7**	1.2-2.3
Child's age	1.1**	1.0-1.2
Gender (male is reference group)	1.0	0.9-1.2
District (Marracuene is reference group)		
Natikire	1.3	0.8-2.0
Katembe	1.2	0.8-1.7
Dondo	1.5~	1.0-2.2

Key: ~p<.10;*p<.05;**p<.01;***p<.001; Note: OR = Odds Ratio, CI = Confidence Interval

more times in the past four weeks compared to non-poor non-OVC. Older children were more likely to be at risk as well but there were no gender-based differences and minimal differences based on location; however children in Dondo were at slightly elevated odds of having worried caregivers.

The trend, whereby OVC living in poor households have worse outcomes, continues for health such that 36% of poor OVC have chronic medical problems compared to 21% of non-poor, non-OVC (Table 14). Of course, all OVC have an increased likelihood of having a chronic illness compared to non-OVC, given that one definition of vulnerability is having a chronic illness. However there were no differences in chronic illness levels based on gender or location.

While 60% of the non-OVC, non-poor children were reported to have slept under a mosquito net the night before the survey, only 47% of poor OVC were reported to have done so. Compared to non-poor, non-OVC—poor OVC were 2.6 times more likely, poor non-OVC were 2.1 times likely and non-poor OVC were 1.6 times more likely—to not use a bed net. There were no gender disparities in bed net use. Compared to Marracuene, children in Katembe were more likely to use a bed net while children in Natikire and Dondo were 50% less likely to use a net.

One positive finding is that over 90% of caregivers reported that when children had acute health problems, the caregiver sought medical care for the child. In logistic regression models, there

were no differences in seeking healthcare based on the child’s gender. However, the older the child was, the less likely that care was sought. Also, children in Marracuene were most likely to receive care when ill. Of course, caregivers sought a range of solutions from conventional clinics and medicines to traditional doctors and herbs.

Table 14. Health status of 0-4 year olds (Percentage of children)

	OVC and Poor n= 142	Non-OVC and Poor n=271	OVC and Non-Poor n=383	Non-OVC and Non- Poor n=1192	P-value
Chronic medical problem %	36	26	35	21	***
Uses mosquito net %	47	51	52	60	***
Care sought when ill in last year? %	94	98	97	92	***

Key: ~p<.10;*p<.05;**p<.01;***p<.001; P-values are for chi-square trend for each variable across household type.

When examining nutritional status, we found that 69% of poor OVC were stunted compared to 62% of non-poor, non-OVC (Table 15). However, when controlling for determinants such as OVC and poverty status, location, and demographics, age is the only significant predictor such that older children were more likely than younger children to be stunted.

Next, a larger proportion of poor OVC were underweight compared to non-poor, non-OVC. In logistic regression models, the only significant predictor of underweight was OVC status such that non-poor OVC were 49% more likely to be underweight than non-OVC and non-poor. Poor OVC had the same odds ratio (49%) as non-poor OVC, but it was not statistically significant. The child’s age, gender, and district were not significant predictors of underweight.

Table 15. Anthropometry of 0-4 year olds: Percentage of children stunted, underweight and wasted

	OVC and Poor n= 142	Non-OVC and Poor n=271	OVC and Non-Poor n=383	Non-OVC and Non- Poor n=1192	P-value
Stunted %	69	65	63	62	***
Underweight %	19	16	19	13	***
Wasted %	5	5	4	4	

Key: ~p<.10;*p<.05;**p<.01;***p<.001; P-values are for chi-square trend for each variable across household type.

Fewer poor children had birth certificates than non-poor children (Table 16). In logistic regression models, poor OVC were about 40% less likely to have a birth certificate (p=.08) but there were no differences based on gender. Older children were more likely to have a birth certificate and children in Natikire, Katembe, and Dondo were less likely than children in Marracuene to have a certificate.

Table 16. Percentage of children with a birth certificate

	OVC and Poor n= 142	Non-OVC and Poor n=271	OVC and Non-Poor n=383	Non-OVC and Non- Poor n=1192	P-value
Birth Certificate %	85	85	92	92	***

Key: ~p<.10;*p<.05;**p<.01;***p<.001; P-values are for chi-square trend for each variable across household type.

Despite the reported food insecurity and high level of malnourishment in children under the age of 5 years, there were very low levels of reported support among caregivers of these children. Caregivers reported that among poor OVC less than 1% received food support, 3% received

income support, and 4% received material support (Table 17). We do not present models for support because the level of support was so low.

Table 17. Percentage of children receiving support for 0-4 year olds

	OVC and Poor n= 142	Non-OVC and Poor n=271	OVC and Non-Poor n=383	Non-OVC and Non- Poor n=1192	P-value
Food support %	1	0	5	2	***
Income support %	3	0	1	0	***
Material support %	4	1	6	3	***
Information support %	31	23	23	25	***

Key: ~p<.10;*p<.05;**p<.01;***p<.001; P-values are for chi-square trend for each variable across household type.

Five to eleven year olds

Compared to 0-4 year olds, 5-11 year old children were less likely to live in households with mothers (91% of all 0-4 year olds compared to 76% of all 5-11 year olds) and fathers (63% of all 0-4 year olds compared to 50% of all 5-11 year olds.)

While 21% of all 5-11 year olds have a chronically ill parent, 27% of poor children have a chronically ill parent (Table 18).

Table 18. Child's parental status (5-11 year olds) (Percentage of children)

	All children n=2388 %	Poor children n=444 %	Non-poor children n=1944 %
Mother in household	76	80	75
Father in household	50	36	53
Mother sick	15	22	14
Father sick	9	9	9
Any parent sick	21	27	20

Similarly, there were higher rates of orphan hood among 5-11 than 0-4 year olds. Approximately 22% of all children and 29% of poor children survived a mother or father. Overall, 39% of children were classified as OVC based on being an orphan, being chronically ill or having a chronically ill parent. Further, 50% of 5-11 year old poor children are OVCs (Table 19.)

Table 19. Child orphan and vulnerable status (Percentage of children)

	All children n=2388 %	Poor children n=444 %	Non-poor children n=1944 %
Maternal orphan	4	4	4
Paternal orphan	16	22	4
Double orphan	2	3	2
Any orphan (maternal or paternal or double)	22	29	20
Non-orphan	78	71	80
Vulnerable (caregiver or child is ill)	39	50	36
OVC	39	50	36

Among 5-11 year olds, caregivers reported inadequate housing, such that 42% of non-poor, non-OVC and 69% for poor OVC get wet when it rains. There were no age or gender differences but children in Katembe and Dondo were most at risk of getting wet when it rains. Further, caregivers reported that 25% of non-poor, non-OVC had no blanket whereas 61% of poor OVC had no blanket (Table 20). In the logistic regression model, compared to non-poor, non-OVC, poor OVC were 3.4 times more likely have no blanket (Table 21). Age and gender were not significant predictors of not having a blanket. Location was a significant predictor such that children in Natikire and Dondo were less likely to have a blanket and children in Katembe were more likely to have a blanket than children in Marracuene.

Table 20. Child poverty as measured by housing quality for 5-11 year olds (Percentage of children)

	OVC and Poor n= 223	Non-OVC and Poor n=221	OVC and Non-Poor n=699	Non-OVC and Non- Poor n=1245	P-value
Child gets wet if rains %	69	62	54	42	***
No blanket %	61	54	40	25	***

Key: ~p<.10;*p<.05;**p<.01;***p<.001; P-values are for chi-square trend for each variable across household type.

Table 21. Final logistic regression model for likelihood that child does not have a blanket (n=2372)

<i>Fixed Effects</i>	OR	95% CI
Childs orphan and poverty status (reference group is Non-OVC, non-poor)		
OVC poor	3.4***	2.9-5.3
Non-OVC poor	2.6***	1.7-4.00
OVC non-poor	1.7**	1.3-2.2
Child's age	1.0	1.0-1.1
Gender (male is reference group)	1.1	0.9-1.3
District (Marracuene is reference group)		
Natikire	2.5	1.5-4.1
Katembe	0.7	0.4-1.8
Dondo	2.0***	1.2-3.5

Key: ~p<.10;*p<.05;**p<.01;***p<.001; Note: OR = Odds Ratio, CI = Confidence Interval

Food insecurity is widespread throughout all types of households, but we see more disparities based on both poverty and OVC status. For example, among 5-11 year olds, 22% of caregivers for poor OVC reported that a child went day and night without food more than 3times in the past 4weeks compared to 14% of poor non-OVC and 13% of non-poor OVC households. We also observe from table 22 that 9% of poor OVC went to bed hungry more than 3times in the preceding one week compared to 5% and 7% among poor non-OVC and non-poor OVC respectively. Moreover, 22% of poor OVC reportedly went a day and night without food at least three times in the month preceding the survey compared to 7% of non-poor, non-OVC. Further, 18% of poor OVC went to school hungry three or more times in the week preceding the survey compared to 10% of non-poor, non-OVC.

Table 22. Percentage of children with food insecurity for 5-11 year olds

	OVC and Poor n= 223	Non-OVC and Poor n=221	OVC and Non-Poor n=699	Non-OVC and Non- Poor n=1245	P-value
Caregiver worries not enough food 3+ times in past 4 weeks	60	58	52	38	***
Child went day and night without food 3+ times in past 4 weeks	22	14	13	7	***
Child went to bed hungry 3+ times in past week	9	5	7	3	***
Child went to school hungry 3+ times in past week	18	15	18	10	***

Key: ~p<.10;*p<.05;**p<.01;***p<.001; P-values are for chi-square trend for each variable across household type.

In logistic regression models, poor OVC were consistently at increased odds of food insecurity for all measures. Poor OVC were 3.4 times more likely to have gone a day and night without food compared to non-poor, non-OVC (Table 23). There were no age or gender differences in the models but children in Dondo had increased odds of going without food a day and night.

Table 23. Logistic regression model for likelihood that child has gone a day and night without food (n=2372)

<i>Fixed Effects</i>	OR	95% CI
Childs orphan and poverty status (reference group is Non-OVC, non-poor)		
OVC poor	3.4***	2.0-5.8
Non-OVC poor	2.3***	1.0-5.6
OVC non-poor	1.8**	1.0-3.0
Child's age	1.0	1.0-1.0
Gender (male is reference group)	1.0	0.7-1.4
District (Marracuene is reference group)		
Natikire	1.1	0.6-1.8
Katembe	0.7	0.4-1.5
Dondo	2.4***	1.4-4.2

Key: ~p<.10;*p<.05;**p<.01;***p<.001; Note: OR = Odds Ratio, CI = Confidence Interval

For anthropometric measurements among 5-11 year olds, 41% of poor OVC were stunted compared to 30% of non-poor, non-OVC children (Table 24). However in logistic regression models, the only significant predictor of stunting was location. Children in Natikire were three times more likely as children in Marracuene to be stunted. Gender and age were not significant predictors of stunting among 5-11 year olds. Poor non-OVC were 1.45 times more likely to be stunted but the p-value was 0.10.

Table 24. Percentage of children stunted: Anthropometry for 5-11 year olds (n=2388)

	OVC and Poor n= 223	Non-OVC and Poor n=221	OVC and Non-Poor n=699	Non-OVC and Non- Poor n=1245	P-value
Stunted	41	47	35	30	***

Key: ~p<.10;*p<.05;**p<.01;***p<.001; P-values are for chi-square trend for each variable across household type.

For educational outcomes, poor OVC had lower rates of school enrolment (72%) compared to non-poor, non-OVC (87%) (Table 25).

Table 25. Education situation of 5-11 year olds (Percentage of children)

	OVC and Poor n= 223	Non-OVC & Poor n=221	OVC & Non-Poor n=699	Non-OVC & Non-Poor n=1245	P-value
Enrolled %	72	75	84	87	***
Absent more than once in past week %	15	13	10	7	***
Behind in grade for age %	17	11	13	7	***
Child out of school for financial reason %	21	23	12	6	***

Key: ~p<.10;*p<.05;**p<.01;***p<.001; P-values are for chi-square trend for each variable across household type.

In logistic regression models, poor OVC were 2.4 times more likely to be out of school compared to non-poor, non-OVC. Five to seven year olds were about 6 times more likely to be out of school compared to 8 to 11 year olds. Gender was not a significant predictor of being out of school; however living in Natikire was important, such that children in Natikire were 2.5 times more likely to be out of school than children in Marracuene (Table 26).

Table 26. Logistic regression model for likelihood that children age 5-11 are out of school (n=1240)

Fixed Effects	OR	95% CI
Childs orphan and poverty status (reference group is Non-OVC, non-poor)		
OVC poor	2.4***	1.5-4.1
Non-OVC poor	1.7*	1.1-2.6
OVC non-poor	1.4	1.0-2.0
Child's age (8-9 are reference group)	6.5***	4.5-9.4
5-7 years old	1.1	0.8-1.8
10-11 years old		
Gender (male is reference group)	0.8	0.6-1.1
District (Marracuene is reference group)		
Natikire	2.5***	0.7-1.8
Katembe	0.9	1.6-3.9
Dondo	1.0	2.5-1.4

Key: ~p<.10;*p<.05;**p<.01;***p<.001; Note: OR = Odds Ratio, CI = Confidence Interval

Poor OVC were most likely to be absent more than once in the past week (15% vs. 10%) and more likely to be behind in grade for age (17% vs. 7%) than non-poor, non-OVC. However in models, the only significant predictor of many absences was living in Natikire and Dondo. Age, gender, orphan and poverty status were not significant predictors. Poor OVC were 86% and non-poor OVC were 52% more likely to be behind in grade for age compared to non-poor, non-OVC. Gender was not a significant predictor of grade for age but each added year of age increased the likelihood of being behind. Children in Natikire and Dondo were more likely than children in other districts to be behind grade for age, holding all else constant.

Caregivers reported that they perceived poor educational performance among 16% of all children. For poor OVC this increases to 19%. However, caregivers of only 1% of poor OVC reported that the child had performed badly in the last term (Table 27).

Table 27. The education situation of 5-11 year olds (children enrolled in school) (Percentage of children)

	OVC & Poor n= 223	Non-OVC & Poor n=221	OVC & Non- Poor n=699	Non-OVC & Non- Poor n=1245	P-value
Caregiver perceived poor performance %	19	18	16	14	***
Performed poorly last term %	1	5	4	4	***

Key: ~p<.10;*p<.05;**p<.01;***p<.001; P-values are for chi-square trend for each variable across household type.

With regard to psychological wellbeing, we present the percentage of children that scored as having serious problems in the Strengths and Difficulties Questionnaire, disaggregated by OVC and poverty status. Across the different domains of the tool, conduct problems emerge as a serious issue. Among 5-11 year olds, 19% of non-poor, non-OVC and 23% of poor OVC scored as having conduct problems (Table 28). However, in logistic regression models, the only significant predictors of serious emotional problems were location such that children in Natikire and Dondo were more likely than children in other districts to have emotional problems. Gender, poverty and orphan status were not significant predictors. For other problems, gender and location were significant predictors but poverty status and orphan status were not. Boys were more likely than girls to have conduct, peer, and social problems. Children in Natikire and Dondo had increased odds for most problems and children in Katembe were also at increased odds for social problems compared to other children.

Table 28. Strengths and difficulties: Percentage scoring as having serious problems for 5-11 year olds

	OVC and Poor n= 223	Non-OVC and Poor n=221	OVC and Non-Poor n=699	Non-OVC and Non- Poor n=1245	P-value
Emotional problem %	16	11	11	7	***
Conduct problem %	23	24	20	19	***
Peer problems %	4	5	5	6	***
Social problems %	10	15	8	10	***
Total score (problem) %	18	20	14	14	***

Key: ~p<.10;*p<.05;**p<.01;***p<.001; P-values are for chi-square trend for each variable across household type.

Data from the four areas of Mozambique shows that 5-11 year olds face a range of food security, health, education, and psychosocial problems. However, care and support for these children is not commensurate with need. The most common type of support was educational support such that approximately 40% of all children and 43% of OVC received some type of educational support. Few caregivers of 5-11 year old children received information on child rights and information on how to protect children from abuse. Table 29 shows very low proportions of children reported to have received food, income or material support.

Table 29. Percentage of children receiving support for 5-11 year olds

	OVC and Poor n= 223	Non-OVC and Poor n=221	OVC and Non- Poor n=699	Non-OVC and Non- Poor n=1245	P-value N=2388
Info on child rights %	26	18	23	22	***
Food support %	0	0	4	2	***
Income support %	0	1	1	0	*
Material support %	3	1	5	3	***

Key: ~p<.10;*p<.05;**p<.01;***p<.001; P-values are for chi-square trend for each variable across household type.

Among children receiving some type of school assistance, the vast majority received books, pencils or stationary. Only 1% of children received uniforms. Less than 1% received transport assistance. Table 30).

Table 30. Percentage of children receiving educational support for 5-11 year olds

	OVC and Poor n= 223	Non-OVC and Poor n=221	OVC and Non-Poor n=699	Non-OVC and Non- Poor n=1245	P-value N=2388
Uniform	0	2	1	1	**
Stationary	12	34	28	36	***
Books	91	86	90	88	
Pencils	50	44	43	41	**
Transport	0	2	2	1	***
Fees	0	0	8	5	***

Key: ~p<.10;*p<.05;**p<.01;***p<.001; P-values are for chi-square trend for each variable across household type.

Finally, caregivers of about one third of poor OVC reported that the child was engaged in after school or other activities compared to one fifth of non-poor, non-OVC (Table 31). Home visit counseling was rarely provided.

Table 31. Percentage of children in after school activities for 5-11 year olds

	OVC and Poor n= 223	Non-OVC and Poor n=221	OVC and Non-Poor n=699	Non-OVC and Non- Poor n=1245	P-value N=2388
Any activity	30	21	22	19	***
After school Program	11	9	7	5	***
Sports	7	5	7	8	*
Support group	7	10	6	6	***
Career counseling	0	1	1	1	~
Home visit counseling	2	0	1	1	**

Key: ~p<.10;*p<.05;**p<.01;***p<.001; P-values are for chi-square trend for each variable across household type.

Twelve to seventeen year olds

Compared to 0-4 and 5-11 year olds, fewer 12-17 year olds lived with a mother or a father. However, about one in five 12-17 year olds lived with a chronically ill parent (Table 32).

Table 32. Parental status of 12-17 year olds

	All children n=1240 %	Poor children n=188 %	Non-poor children n=1052 %
Mother in household	65	65	65
Father in household	42	25	45
Mother sick	13	12	13
Father sick	9	8	9
Any parent sick	19	19	20

Key: ~p<.10;*p<.05;**p<.01;***p<.001; P-values are for chi-square trend for each variable across household type.

By 12-17 years, the proportion of children that survived one or both parents was 36% and 50% of children were orphaned or vulnerable. The rate increases to 47% and 60% among poor children (Table 33).

Table 33. Orphan and vulnerable status of 12-17 year olds

	All children n=1240 %	Poor children n=188 %	Non-poor children n=1052 %
Maternal orphan	7	8	7
Paternal orphan	22	33	20
Double orphan	7	8	7
Any orphan(maternal or paternal or double)	36	47	34
Non-orphan	64	53	66
Vulnerable (caregiver or child is ill)	50	60	49
OVC	50	60	49

Key: ~p<.10;*p<.05;**p<.01;***p<.001; P-values are for chi-square trend for each variable across household type.

Again, food insecurity is a significant problem such that the caregivers of 64% of poor OVC repeatedly worried that there would not be enough food compared to 36% of non-poor, non-OVC (Table 34). Moreover, 21% of poor OVC went a day and night without food three or more times in the month preceding the survey, compared to 8% of non-poor, non-OVC. In logistic regression models, poor OVC children were 3.2 times more likely to have gone a day and night without food compared to other children. Gender, age and location were not significant predictors of going without food (Table 35.) However, in models of going to bed hungry, gender was significant such that girls were 2.1 times more likely to have gone to bed hungry than boys, holding all else constant.

Table 34. Percentage of children with food insecurity for 12-17 year olds

	OVC & Poor n= 112	Non-OVC & Poor n=76	OVC & Non-Poor n=512	Non-OVC & Non-Poor n=540	P-value N=1240
Caregiver worries not enough food 3+ times in past 4weeks %	64	59	49	36	***
Child went day and night without food 3+ times in past 4weeks %	21	17	11	8	***
Child went to bed hungry 3+ times in past week %	4	5	5	3	***
Child went to school hungry 3+ times in past week %	12	26	14	11	***

Key: ~p<.10;*p<.05;**p<.01;***p<.001; P-values are for chi-square trend for each variable across household type.

Table 35. Logistic regression model for likelihood that child went a day and night without food (n=1233)

Fixed Effects	OR	95% CI
Childs orphan and poverty status (reference group is Non-OVC, non-poor)		
OVC poor	3.2***	1.6-6.7
Non-OVC poor	2.4~	0.9-6.5
OVC non-poor	1.5~	0.6-1.2
Child's age	1.0	0.8-1.0
Gender (male is reference group)	0.8	0.6-1.0
District (Marracuene is reference group)		
Natikire	0.8	0.4-1.7
Katembe	0.6	0.2-1.7
Dondo	1.0	0.5-2.0

Key: ~p<.10;*p<.05;**p<.01;***p<.001; Note: OR = Odds Ratio, CI = Confidence Interval

Among 12-17 year olds, 31% of poor OVC reported having a chronic medical problem compared to 17% of non-poor, non-OVC (Table 36). Again, this is not surprising given that one definition of vulnerability is having a chronic illness. There were no differences in getting tested for HIV or care seeking between the groups. However, in logistic regression models, neither age nor gender was a significant predictor of chronic illness. Further, poor OVC and non-OVC were least likely to sleep under a bed net compared to other children and there were no age or gender differences in bed net use.

Table 36. Health status of 12-17 year olds (Percentage of children)

	OVC & Poor n= 112	Non-OVC & Poor n=76	OVC & Non-Poor n=512	Non-OVC & Non- Poor n=540	P-value N=1240
Chronic medical problem %	31	29	28	17	***
HIV tested %	8	6	7	7	***
Uses mosquito net %	28	25	35	36	***
Care sought for child when ill in last year %	82	78	82	85	**

Key: ~p<.10;*p<.05;**p<.01;***p<.001; P-values are for chi-square trend for each variable across household type.

Stunting is generally high among all children in the study area. However, poor non-OVC and poor OVC are much more likely to be stunted than non-poor children (Table 37). In logistic regression models, poor OVC had 1.54 times the odds, poor non-OVC 2.22 times the odds of being stunted compared to non-poor, non-OVC. Girls were less likely than boys to be stunted, and children in Katembe were less likely to be stunted than children in Marracuene (Table 38). Holding all else constant, neither orphan, vulnerability (Child or parent sickness) nor poverty status explained stunting in 0-11 year olds; however among 12-17 year olds, poor orphans and poor non-orphans had an increased odds of being stunted.

Table 37. Percentage of children stunted: Anthropometry for 12-17 year olds

	OVC and Poor n= 112	Non-OVC and Poor n=76	OVC and Non-Poor n=512	Non-OVC and Non- Poor n=540	P-value N=1240
Stunted	59	68	46	43	***

Key: ~p<.10;*p<.05;**p<.01;***p<.001; P-values are for chi-square trend for each variable across household type.

Table 38. Logistic regression model for likelihood that child is stunted (n=1227)

Fixed Effects	OR	95% CI
Childs orphan and poverty status (reference group is Non-OVC, non-poor)		
Orphan poor	1.6*	1.0-2.5
Non-orphan, not vulnerable, poor	2.2**	1.3-4.0
Vulnerable poor	1.4	0.6-3.6
Orphan, not poor	1.0	0.8-1.4
Vulnerable, not poor	1.2	0.8-1.8
Child's age	1.1~	1.0-1.1
Gender (male is reference group)	0.7*	0.56-1.0
District (Marracuene is reference group)		
Natikire	1.5~	1.0-2.4
Katembe	0.6**	0.4-0.8
Dondo	1.2	0.8-1.8

Key: ~p<.10;*p<.05;**p<.01;***p<.001; Note: OR = Odds Ratio, CI = Confidence Interval

School enrolment is generally high (over 80%) among all groups. However, the highest enrollment rates are still among the non-poor and non-OVC and lowest among the poor (OVC and non-OVC) (Table 39). In logistic regression models, poor non-OVC were more than twice as likely to be out of school compared to non-poor, non-OVC (Table 40). There were no statistically significant gender differences in being out of school. Older children were more likely than younger children to be out of school. Also, children in Dondo were less likely to be out of school compared to children in other districts.

Further, while 27% of non-poor and non-OVC were behind in grade for age, 49% of poor OVC and 43% of poor non-OVC were behind in grade for age. In logistic regression models, poor OVC were 2 times more likely and poor non-OVC were 1.6 times more likely to be behind in grade compared to non-poor, non-OVC. In addition, girls were less likely than boys to be behind and older children were more likely than younger children to be behind in grade for age. Holding all else constant, children in Naticire were more likely than children in other districts to be behind in grade. It is not surprising then—given that poverty partially explains being behind in grade for age—that among 12-17 year olds not in school, financial reasons were the cause of leaving school for 30% of poor and non-poor OVC and poor non-OVC, and 17% of non-poor, non-OVC.

Table 39. Education situation of 12-17 year olds (Percentage of children)

	OVC and Poor n= 112	Non-OVC and Poor n=76	OVC and Non-Poor n=512	Non-OVC & Non- Poor n=540	P-value N=1240
Enrolled	82	80	86	89	***
Absent more than once in past week	14	7	10	7	***
Behind in grade for age	49	43	30	27	***
Caregiver perceived poor performance	15	23	12	15	***
Performed poorly last term	4	5	5	6	
Financial reason for not in school	30	30	30	17	***

Key: ~p<.10;*p<.05;**p<.01;***p<.001; P-values are for chi-square trend for each variable across household type.

Table 40. Logistic regression model for likelihood that child is out of school (n=1240)

Fixed Effects	OR	95% CI
Childs orphan and poverty status (reference group is Non-OVC, non-poor)		
OVC poor	1.7	0.7-4.0
Non-OVC poor	2.1*	1.2-4.0
OVC non-poor	1.3	1.0-2.0
Child's age	1.5***	1.4-1.8
Gender (male is reference group)	1.4~	0.7-2.1
District (Marracuene is reference group)		
Naticire	0.8	0.4-1.4
Katembe	0.6	0.3-1.2
Dondo	0.5*	0.3-0.8

Key: ~p<.10;*p<.05;**p<.01;***p<.001; Note: OR = Odds Ratio, CI = Confidence Interval

The most common problems for 12-17 year olds, as identified by high scores on the Strengths and Difficulties Questionnaire, were in the domains of social and emotional problems (Table 41). Approximately 32% of poor OVC scored as having serious emotional problems and 39% of poor OVC scored as having serious social problems. Generally, poor OVC scored worse than non-poor, non-OVC in the other domains. However, in logistic regression models, the significant predictors of emotional problems were age and gender. Holding all else constant, girls were 44%

more likely to report emotional problems compared to boys and older children reported more problems than younger children. Likewise, girls were also 57% more likely than boys to report serious problems with their peers and 58% more likely to report conduct problems. There were no other significant predictors of peer or conduct problems. For social problems, gender was not a significant predictor but poor OVC had 2.3 times and poor non-OVC had 2.2 times the odds of reporting serious social problems compared to non-poor, non-OVC. Holding all else constant, older children were less likely to report social problems and children in Dondo were more likely to report serious social problems.

Table 41. Strengths and difficulties: Percentage of 12-17 year olds scoring as having serious problems

	OVC and Poor n= 112	Non-OVC and Poor n=76	OVC and Non-Poor n=512	Non-OVC and Non- Poor n=540	P-value
Emotional problem %	32	25	25	22	**
Conduct problem %	20	16	17	17	
Hyperactivity problem %	6	4	4	2	***
Peer problems %	11	7	12	10	*
Social problems %	39	37	26	26	***

Key: ~p<.10;*p<.05;**p<.01;***p<.001; P-values are for chi-square trend for each variable across household type.

Similarly, poor OVC were most likely to report low levels of hope (using the Hope Scale) (Table 42). Non-poor and Non-OVC were least likely to report low hope for the future. In logistic regression models, poor OVC had 2.56 times the odds of reporting that they had no hope for the future compared to non-poor, non-OVC. Older children were less likely to report having no hope compared to younger children. Further, children in Naticire and Dondo were more likely to report having no hope for the future compared to children in other districts.

Table 42. Hope scale: Percentage reporting low hope (Range is 0-30) (12-17 year olds)

	OVC & Poor n= 112	Non-OVC & Poor n=76	OVC & Non-Poor n=512	Non-OVC & Non- Poor n=540	P-value N=1240
Percent reporting low hope (<7 out of 30)	58.8	51.1	39.3	32.2	***

In contrast to 5-11 year olds, only small percentages of 12-17 year olds received some type of educational support (Table 43). The largest support for the 12-17 year olds was provision of information on child rights. Overall, few 12-17 year olds received food, income or material support, despite widespread need.

Table 43. Percentage of children receiving support for 12-17 year olds (n=335 receiving support)

	OVC & Poor n= 112	Non-OVC & Poor n=76	OVC & Non-Poor n=512	Non-OVC & Non- Poor n=540	P-value N=1240
Educational support %	3	2	12	9	***
Anyone provided info on child rights %	22	22	21	21	
Food support %	1	0	3	2	***
Income support %	0	2	0	0	**
Material support %	1	2	4	2	***

Key: ~p<.10;*p<.05;**p<.01;***p<.001; P-values are for chi-square trend for each variable across household type.

Among 12-17 year olds that received support, again books, stationary and pencils were the leading forms of support (Table 44). Approximately 94% of poor OVC received books. Support in the form of uniforms, fees and transport were rarely reported.

Table 44. Percentage of children receiving educational support for 12-17 year olds

	OVC and Poor n= 112	Non-OVC and Poor n=76	OVC and Non-Poor n=512	Non-OVC and Non- Poor n=540	P-value N=1240
Uniform %	3	0	2	2	
Stationary %	15	57	30	32	***
Books %	94	82	85	82	***
Pencils %	24	39	24	33	***
Transport %	6	0	0	0	***
Fees %	0	0	4	2	**
Homework %	0	0	3	3	

Key: ~p<.10;*p<.05;**p<.01;***p<.001; P-values are for chi-square trend for each variable across household type.

Among 12-17 year olds, 38% of poor OVC reported that they were engaged in some after school activity and this was not different from non-poor and non-OVC (39%). Sports were the most common activity with 17% of poor OVC and 26% on non-poor and non-OVC 12-17 year olds participating (Table 45). Only 9% of poor OVC and 10% of non-poor, non-OVC participated in a support group. As observed among 5-11 year olds, home visits for counseling was rare.

Table 45. Percentage of children in after school activities for 12-17 year olds

	OVC and Poor n= 112	Non-OVC and Poor n=76	OVC and Non-Poor n=512	Non-OVC and Non- Poor n=540	P-value N=1240
Any activity	38	28	34	39	***
Sports	17	12	22	26	***
Support group	9	18	7	10	***
Homework help	11	5	9	12	***
Career counseling	0	0	2	4	***
Home visit counseling	1	2	4	6	***

Key: ~p<.10;*p<.05;**p<.01;***p<.001; P-values are for chi-square trend for each variable across household type.

Qualitative Results

Next, we present selected portions of the qualitative analysis, including focus group discussions with caregivers, case study narratives with caregivers, and key informant interviews with OVC care providers. These analyses provide additional insight, and help to verify and contextualize the quantitative findings. Using the voices of study respondents, we provide quotations that help explain the challenges facing children and families, perceptions of and experiences with OVC support, existing coping mechanisms, and some of the frustrations that families report.

OVC Caregivers

In in-depth interviews and focus group discussions, we asked caregivers **“In your view what are the major challenges faced by caregivers of orphans and other vulnerable children?”** Throughout the study districts, the financial hardship associated with caring for OVC was considered one of the greatest challenges for caregivers. Respondents described their difficulties in meeting children’s needs for food, clothing, medical expenses, school uniform and supplies, and blankets. The following quotes from caregivers describe these challenges:

“There are many difficulties that I am facing, firstly, I have many children that I am caring for, but I don’t have the means to feed them. The same with school, they don’t have uniforms, sometimes they can have a shirt and not have trousers.”

“I also have difficulties with my children because in the area that I live, it doesn’t produce a lot of maize. We are just able to produce peanuts, and when we sell the peanuts, we are able to buy some books for the children and we continue to live in our difficulties. But we can’t say that we are advancing, no! I don’t have the means of supporting my children.”

“I am a secretary of this neighborhood but my children are still going through the same situation. I am not able to create the conditions to give uniforms to my children. Sometimes I go to the woods to cut bamboos and sticks to go and sell in the city. The money that I get is little to be able to sustain the children. I am living in a very difficult situation.”

“We the caregivers suffer, caring for our grandchildren, because it is difficult to feed them and we aren’t able to sell anything. When dawn breaks, we just wake up and go and cultivate. When we don’t get anything from the cultivations, the children sleep hungry without eating anything. They don’t even have clothes to wear or shoes to go to school with. Where will I find the money to buy these things? That’s why we end up suffering with this lack of means to give our grandchildren, because these children no longer have someone who cares for them.”

“The challenges that I have encountered, they are many. The suffering of my grandson...Even when he wants to eat... you see now its morning, until now, he hasn’t eaten anything. He will drink a cup of tea and a piece of cassava and he will go to school. When he comes back is when he will eat something...later on. The manner of eating, of dressing, it is very difficult. When he sees his friends at school, the manner in which they dress, he wants to imitate all of that at school. When he gets home he asks for it. When you say that you don’t have, it is as if you are refusing, but he is able to see the granny

does not have, because granny does not work. The grandfather works, but he is only able to buy a bag of rice for us to be able to survive. He does not eat what he wants, so he envies. Sometimes he goes to school without having a snack. He says “Granny can I have 1metical to buy a snack?” I do not have, so sometimes I tell him to take cassava, put it in a plastic bag and take it to school. It looks like I refuse to give him things here in the house. He is suffering, even me as the grandmother, I am suffering, because I think about having things to give him but I don’t have.”

“The biggest problem that I am facing in caring my children is clothing. I can manage to produce food from my garden or I can do piece jobs, but I don’t have money to clothes them. Even blankets, that we were given are finished. So, we are using pieces of cloths (capolanas) to cover at night.”

“The greatest challenges that we have is putting the children at school because from January until June, the teachers demand uniforms from the children and generally the children are sent back home because they don’t have uniform and they don’t have school supplies and generally the child ends up quitting school and staying at home”

“When we don’t get anything from the cultivations, the children sleep hungry without eating anything, they don’t even have clothes to wear, even shoes to go to school with they don’t have. Where will I find the money to buy these things?

“Sometimes at school the teachers send the children back because they don’t have uniform, shirts, trousers, ties. Even when the grandparents take the children to ask for the declaration of the neighborhood, from the chiefs to say that the child is an orphan. The teachers don’t care, they send the children back.”

In focus group discussions with a broad array of caregivers we asked: **“What are the main sources of support and care for OVC?”** The most frequent reply, which was consistent through all four study sites, was ‘There are no other types of support.’ This was often said in unison during focus group discussions with caregivers. In some cases, because support is rare, by chance, households that do receive some support were not included in the focus group discussions. However, there were geographical differences such that in some districts, there was some or more support available: The following quotes are representative of all the replies that we received.

“We haven’t heard of any organizations.”

“There are no types of support.”

“We have never heard of any (*altogether*).”

“We don’t have support, we don’t have anyone who supports us, and here in this neighborhood we don’t have anything.”

“Sometimes at school those children are given notebooks and pens, but not all the time, once a while. Some other time they were also given mosquito nets. That is the support,

but it was at school. This support wasn't for orphan and vulnerable children, it was for all the school pupils”

“There were some people that came here in 2002. They wrote what they wrote and they said that it was to help us. But we didn't see anything. We didn't see any success of that. They came again and they wrote and the others ended up getting tired because you always write our names and we never see the income. Others end up becoming irritated saying that, “You just come here, you write our names and then you disappear.” Others end up not giving their names, but they are right, because they come and write and they disappear and they don't come again. You see? And that is difficult, raising children in suffering. It is not good.”

We also asked respondents, **“What coping mechanisms exist to deal with the increasing numbers of OVC?”** Some respondents told us that they were not coping and that children, and the caregivers, were just suffering. Other respondents described their attempts to feed and clothe their families.

“We must stay with them, talk to them to make them forget, to give them support, so that they don't lose hope.... It doesn't mean that just because your father died, your life is over. If they want biscuits, I say, “I will buy it tomorrow,” knowing that you won't get it but for him to feel a bit better like the others.”

“Without money, there is nothing that you can do. When these children get sick, they just wait to die. There is nothing that can be done without money.”

“There is nothing being done.”

“We cultivate on the farms, to add to that that we are given by our children... We add to that that our neighbors give us. We harvest the maize and the beans. That is what we eat as well. That is what we eat and how we raise the children.”

“There isn't anything else my son, it's just cultivating. Now that I am no longer able to cultivate, I just sit the way I am now and then they cultivate. They are able to get a little something. When we don't have anything, we just stay like that.”

“We cultivate. We fetch water and we weed. I go to the beach to get prawns. I have nets to catch prawns so that I can have something to help the children. Sometimes I rent because my net is rotten.”

“We are weeding on other people's farms to get some money to buy food to give the children. The neighbors also give us some things that we can cook for the children
“In the morning people come to plait their hair, because I know how to plate hair. Cultivate in the farms, that is the way that we live.”

“I live off cultivation with a hoe. You are seeing me sitting here, the children are at home crying. I have three children at home that the mothers work and I stay with the children, and at the end of the month they give me something so that I can feed these orphan children.”

“I live off maize and beans. That is what I cultivate. That is what sustains us but we aren’t able to have bread because I don’t have money.”

“Bread is expensive. We have to break the bread in half. We don’t eat full bread. We break it.”

“We get go through a month without having bread in our houses, because of not having money to buy, children are crying because they want bread. You look left right and centre, it’s a problem to get this bread.”

When we asked OVC caregivers, **‘What are the names of programs supporting OVC in this area?’** there was no response in the majority of FGDs. Caregivers could not name any OVC support organization. In one community, caregivers described how a local priest was helping them.

“We have never seen. We don’t know if they are, if they exist. We don’t know about them.”

“I never got anything. If others got, we don’t know, because it is just hearsay that they received. But it doesn’t reach us here.”

“That’s right, nothing has come our way.”

“None (*altogether*).”

“Ah yes, there are but there are only programs that support elderly, and that is IMAGINE, yes. They have never supported children, I have never heard of that.”

”Maybe they do support. Maybe it’s a secret. We don’t know.”

“The program here in (town) to support the poor children or children that are suffering, I can say that these programs don’t exist. There was a time that there was a program from the part of the government. They used to write the names of children that were in suffering, poor and elderly. Knowing that they are going to be helped, then some time went by and nothing happened whilst these people were waiting and then it didn’t happen. The one that we know that used to come and help us, on the part of the children that go to school is the priest from the Catholic Church. He sometimes comes to distribute bags, books, shirts.”

“Yes, the priest is the one that helps. Yes, the priest helps with books and clothes; he stopped with food long time ago.”

“These programs don’t exist; we have never heard of them, it doesn’t exist here in our neighborhood.”

“There are (programs) but there are people that go about writing in the houses but we have never seen what they do, they just write our names and they always ask the

question, ‘Which children are orphans and those that don’t have strength because they are sick?’ We aren’t seeing what is there work, even though they are writing, thus we don’t see any help in that. So I just want to say that the children aren’t getting help with anything.”

Finally, of great concern, caregivers in focus group discussions reported that OVC care providers have exploited children or families, pretending to provide materials that are later revoked. For example:

“At first they gave blankets, clothes, oil, beans, peas, maize, basins, buckets, plates, cups, soap and now they don’t bring. If they bring, they call the children, they dress them. They take a few pictures and then they take their things back. They put them in a bag and they go away. If they give, its 2/3 cups and the rest they take and go away, they no longer give.”

“There is an organization that has been coming here that sometimes gives a gallon of maize and peas. They bring clothes. When they come with clothes here, we leave home with our children and we go there. And when we get there, they undress the children and put those clothes that they came with. They take some pictures and then they remove those clothes and go away. They take those pictures and go and show them to the godparents, sometimes in the United States.”

Households that do receive Services

The quantitative data shows that many children and families are food insecure, have health issues, psychosocial problems and that at least one in five children are out of school. Nevertheless, given resource constraints, only a portion of children and families that require services actually receive them. Still, we wanted the perspective of the families that do receive services so we identified caregivers in the quantitative survey who had received at least some support. These caregivers were then asked to participate in in-depth interviews to tell us more about the OVC support they received. We asked caregivers if they had received support and, if so whether that support was helpful. Answers fell into five themes. Households 1) did not receive OVC support (about 5% of households later said that the support (i.e. school books) was not OVC-specific¹; also households that 2) received support and it was helpful 3) received support but it was a one-time experience 4) received support and but it was not enough and 5) received support but it did not help. We provide further quotes to further explain these issues:

Approximately 20% of households that received support explained that they received needed support or services and it was helpful to them:

“I have received some support from Terre des Hommes in terms of seeds, vegetable, maize, beans, cow peas, blankets, clothes for children, a hoe, machete, an ax and school materials.....It has been a big help. With the hoe, I can manage to cultivate my garden, with the vegetable seeds that I was given, it’s a pity I didn’t

¹ Considering that, in general, the study community has poor households, the distribution of support to non-OVC households should not be construed as bad.

have the necessary chemicals to apply, and they are being eaten up by insects. However, I am able to get some vegetables out of which I do manage to sell and have money to support my family.”

“I received once last year. I received three ducks and notebooks. They were two male and one female ducks. The *Red Cross* gave these ducks so that they could give some ducklings. When the ducklings were hatched, I returned the ducks to them and remained with the ducklings so that when they grow up I could sell them to buy books, food, clothes and help the children when they get sick.”

“The Red Cross, they gave me goats, irrigators, machete and school supplies for the children. It helps because the children study, with those school supplies that they gave. The goats that they gave will also help me because they will breed, and also the machete and irrigators, those agricultural implements that they gave me will help in my cultivation.”

“They give maize flour 20 kgs, cooking oil and beans. Yes it helps, even though it is not enough for all of us but it helps to feed the family. When I receive the maize, I take to the grinding mill and then I can make thick porridge for my children.”

“They give maize and beans. I would request if they could include soap and cooking oil. It helps out with the little money that I would have made through piece work; we manage to have something to eat in the house.”

It was more common—approximately 25% of the in-depth interview respondents that received support—to report receiving some support, and that while it was helpful at the time, it was only received once or was received irregularly:

“Yes I received services, but I only received it once. It was *IMAGINE* that gave me support. The house that I am living in now, it was *IMAGINE* that built it, they gave me blankets, mats, and uniform for the children and books, food.”

“Sometime back, I got a bucket, blanket, plate, machete, sugar, pencils, colored pencils, a school bag, notebooks. But now, I receive maize and beans. Every time I receive the support, it helps but when I don’t receive then I find the life hard to feed my children.”

“In the beginning of the program, I used to receive sugar, cooking oil, soap, clothes but they stopped for one year and now they have restarted and I am now receiving maize and beans. 5 kg of maize, 5 kg of macaroni and 5 kg of beans.”

Caregivers also reported that while they received support, and appreciated it, the support was sufficient to meet children’s and household’s needs. This was reported in approximately 30% of in depth interviews among households receiving support:

“It helps because sometimes it happens that I don’t have anything to feed the family and when I receive the foodstuffs, at least I manage to prepare meals for the children. Yes I have received once some assistance from an organization called *Nishilanga*. They used to give materials such as notebooks, mosquito nets...”

“This was only done once and is now closed. The materials that were there have been stolen.”-OVC Caregiver

“The support for consumable goods such as maize, beans. It’s a support that is provided to the children. For the children they also support with school materials. But this support is not enough but it somehow alleviates families’ basic needs. It helps because sometimes one is badly off and one doesn’t know what to do on that day and you see when this kind of support arrives, one gets alleviated. It is a help.”

“At the school, sometimes they call the mothers to go and get a notebook, a pen, a pencil, a rubber and books that are bit old. That is what we have seen. It isn’t enough because with a notebook, the child can’t stay with it for many days. It’s not enough. It does help me—I can’t lie—it does help me.”

“Soap and they put the children at school and birth certificate. They just gave one of the child notebooks and school supplies. They just gave support to one child but at the school of the other children, they always ask for money, 50mteicais, or 75meticais.”

“They give him at school; they give him, books, pens, pencils, bag and soap. But, it just helps that person that goes to school. It doesn’t help the household. Yes, it also does help me because I only have to buy pens, I don’t buy the other things, even books.”

About 20% of caregivers in the in depth interviews reported that while they received some support, it was not helpful:

“Just of one day? It doesn’t help me in anything. For me, support is always giving me something, not just giving me once. It doesn’t help me in any way.”

“They give me cool drinks to sell, but the business isn’t successful because I don’t have a deep freezer and I am spending more money to buy ice.”

“We just received once, notebooks, colored pencils and pens from the church. No, it did not help at all.”

OVC Care Providers

Finally, we interviewed eight OVC care providers in the four study sites. Some of the respondents had difficulty articulating their organization’s objectives while others described their clear focus on educational support or food support. **OVC care providers were asked, in the vernacular, what their organizations’ objectives were:**

“Through the support we want to guarantee the well-being of the orphan children. Support these children so they go to school, support physical development. That is, on the basis of food, we support the orphans with food and we also support the children in terms of health and we give the children psychosocial support.” “Evangelize and connected to evangelizing is also education. Thus if you evangelize educating at the same time you can say you evangelize educating because either evangelizing or educating, you have as an objective the affinity of a human, the well-being of a human. A human can recognize the capacities that they have within themselves for their own good and also how the person lives, how they relate. Thus, it’s an integration of the person, because it’s the person themselves that can recognize what they can do for themselves, for their families and for

the country....Each support that comes from the outside is like worthless, but if the person recognizes and discovers for themselves what they need for themselves, for their people, and knows how to recognize conditions for development or knows how to give value to the work that they person receives. It has to be the person themselves to discover what was promised to her and for her people that creates conditions to provide, grow and mature. That is why evangelization and education can be a good path, good growth for the person “Our objectives are mainly to guarantee schooling. Education, clothing, school supplies and give affection to the children, so that they grow well, healthy. Also the issue of health, I had forgotten to mention that. Guarantee that the child grows up healthy. We work with the medical post, where we usually take the kids there to do the screening and other types of checkups, to see how the children are growing up. Thus it is education, food, love and affection.”

“Contribute to the health of the people with a strong involvement in the community for a better quality of life. This includes economic and social development. Also contribute to the provision of the six essential services to OVCs through community providers.” The majority of OVC care providers report that they offer between 3-6 services for children and families. However, services are not necessarily in line with the activities that would be needed to instigate the type of outcomes and impacts that stakeholders would like to see. For example, a PEPFAR goal for beneficiary children and families is food security and diversity, and adequate growth in children. One OVC organization reports that they provide nutrition services, which they describe:

“We don’t give products, we give education. I think it’s very important to educate because when we did field research in the districts, we saw that the basics are existent. They just don’t know how to avail what is basic in the area of nutrition. We saw cassava and maize. They have greens there and beans that come from the farms. So we see that the basics are there, but since they don’t have an education of how to use what they have... We know that they are in a difficult situation. But since we don’t have a way to distribute food, we give them education.”

According to caregivers who do feed children cassava and other locally grown items, they do not have sufficient agricultural yields. Caregivers report working to cultivate land, but they were not producing enough food to feed their families. Other interventions such as cash transfers or household economic strengthening activities should be explored to help improve food security. Several organizations that provide educational services report that they give children books, pens, and stationary, which are helpful, but are likely not the adequate inputs and activities needed to ensure school enrolment, to reduce absenteeism, to keep children at the right grade for age, to improve performance and to help children transition into productive adults. Some organizations that report providing educational services do other activities:

“Yes we do provide education services. Basically we don’t give; we only create conditions so they have access to that education. We create conditions for the access of education, for basic and technical education.”

“Education, well, that is the focal point... We don’t have resource to correspond to this demand, but we identify, we counsel, we give more courage to the families that it is important that the child goes to school. It’s their right to go to school. “You cannot let the

child not go to school.” The families allege poverty, and we have told them that, “No! We know that we are in a poor country, but the government in turn has answered ... at least a child from grade one to grade five, the cost is close to none.”

Again while advocating for children to attend school is probably important, it is unlikely sufficient to yield the educational impacts that stakeholders want to see.

Additionally, the majority of support organizations only provide regular services to a small number of children, although it is unclear how many children receive support regularly. Organizations report providing services to between 20 and 1700 children but they were unable to articulate how many children and families get services and which services are received on a weekly or monthly basis. The organizations report that they rely on a large number of volunteers who identify children and families in need and then help deliver items, advocate for the children, provide information to the families or refer children and families to other services. According to respondents, the organizations each have limited reach and organizational capacity. They consistently explain that the need among community members and OVC far outweighs their ability to provide services.

None of the organizations appeared to be carrying out effective monitoring and evaluation activities. There was a gap between the projects’ stated outcomes, what providers were measuring, and their reported program outcomes or results. For example, we asked OVC care providers, **‘In your view, do you think the program has had any impact on the lives of the OVC and their households?’** and **‘What makes you think the program has had an impact on the lives of OVC?’**

“Through the psychosocial support, the children have a decent behavior and the development of the child on the part of nutrition and the adherence at school. Before the children had the tendency of not going to school, but now they go. So through this we are able to see that, I mean, we are able to say that the program is having an impact.” “The social and economic evolution of these families, of these children. Those are our indicators; we work on the basis of faith.” –Respondent from OVC Care Organization

“The greatest indicator for us is education because education is the basis. Many children today are what they are because they went through education. Going through education means the project financing school supplies and everything else. That is the biggest indicator. Today we pride ourselves, we see a child talking to the others saying, “I came from here but no I am a teacher.” So, that is a great indicator.” “It’s difficult to say, I wouldn’t know to give you an answer at this point in time because the indicator has as an objective of showing what we have done and what we have achieved, isn’t that so? That’s it! Because we need to have the numbers within our work, we have to see the beneficiaries in this area that we develop, how many people we cover, what came out and so on. So, we don’t have that written, those are things that are don’t technically.”

“The indicators, as I had said that, the change, I just don’t have it documented here because some of the children ran the risk of quitting school, they continue to study until today, because we support them with courseware. Some of the children are able to do things for their self-sustenance, they had some support in terms of, and they received chickens, goats. They do other things that they were taught like producing vegetable

gardens and they had support in, hoes, machetes, so that they would be able to do something for their self-sustenance.”

“It has an impact because in these activities that are done, the child at least demonstrates another attitude in relation to the past. The factors, well, based on the support, so the child alone starts to have other forms of living, I can say it like that.” “Big impact because nowadays, you can see the children at technical education. We have cases of some children that have even gone to England; they are great artists, plastic design. We have other cases of children that are here in the project of *IMAGINE* building capacities in other children in tailoring. We also have cases of children that are working for *IMAGINE* as social fathers to these other orphan children. Apart from him being an orphan, he will be the teacher and take care of other orphan children. So this is the greatest impact. We do a follow up of the child from the beginning until we see the child developing. That is why we work with small numbers so that we are able to see the impact. It is better to work with smaller numbers to see the results.” “We don’t have many strategies, we don’t have many tools but the biggest tool is love that we have for these children. This is our objective, to support the child until they feel like a child that didn’t lose any of their relatives. Also spiritual teaching, this helps the child, firstly to respect one another, among themselves and also to consider thy neighbor and also to know that there is a God.”

It is clear that there is low capacity in organizations to clearly define measureable program monitoring and outcome indicators. Likewise, we also asked: **How does your organization monitor/evaluate its activities/programs?** The responses demonstrate that organizations require additional training and technical capacity in order to measure inputs, activities, outputs, outcomes and impacts².

“Good question. The first evaluation is of the effort of the kids, school results, the active participation and the attitude. We evaluate from the time that the child start with us, how they came in, and how the child is now. We evaluate the good manners. When the child came in and they saw bread, they would go running, but now they don’t do that. They know how to wait for the others to sit on the table. They pray. When they finish they remove their plates. They wash their plates and take them to the kitchen. So before they came all dirty, but now they know that they can’t go to the center while they are dirty. So, that makes us evaluate that something is happening in the child and the “approach” as well. Whilst in the past, if you spoke to a child, and you would feel in them that they are very shy, but today you don’t feel that. You notice that that child can have a few problems but they can express themselves, they know how to talk about their problems, and that is very good.”

“We still don’t have anything written down, but we are working on that because there is a template that we saw from ADPP that is very beautiful, that we want to introduce it to our program as well because it is very important. We would like to in fact have because we would describe exactly if it’s a happy child, if it’s a shy person, what are the problems

² We realize that small CBOs may not need to measure everything from input to impact. However, they do need to identify and measure key indicators to monitor and measure the effect of activities on the lives of OVC and their households.

that that child has? But we still don't have. We are working from goodwill but there are technical issues.”

DISCUSSION

In our quantitative and qualitative interviews, we found many children and families in a desperate situation, facing chronic food insecurity, inadequate housing, and lacking basic needs. The combination of poverty and taking care of orphans and other vulnerable children appears to make these households more vulnerable than all other households. These households have worse dependency ratios than all others, have the lowest household income, and are often headed by widows. The voices of the OVC caregivers speak to the difficulties of coping with poverty and caring for OVC in the midst of little external financial support. As one caregiver said, “What can you do without money?” According to the Mozambique Action Plan 2006-2009 (PARAII), poverty is defined as ‘the impossibility, due to incapacity or due to lack of opportunity of individuals, families or communities to attain minimum living conditions according to basic societal norms’(15). Therefore PARA II established goals for the reduction of monetary poverty and for the reduction of non-monetary poverty, with a focus on education, health, nutrition, and asset ownership. This study highlights the inability of households to attain a minimum living standard for children, with the worst poverty levels among households taking care of OVC.

Not surprising, given widespread food insecurity, many children are stunted and underweight. The levels of stunting observed in our study (30% to 69%) across all our comparison groups and across all age groups are unacceptably high; and require urgent attention. According to MICS in 2008, the percentage of chronically malnourished(stunted) children under five years was overall 44% (3), which according to WHO standards was still very high(16). Consistent with the MICS data, the level of chronic malnutrition from this study is still high in the study areas. Our finding that children 5-11 years old in Naticire (Nampula province) were three times more likely as children in Marracuene (Maputo province) to be stunted is consistent with MICS data; and perhaps reflects the long existing differences in the prevalence of stunting between these two provinces. The finding that older children are more likely to be stunted than younger ones is also not surprising considering that stunting measures chronic malnutrition. Though the process of stunting usually starts early as kids fall off their growth chart trajectory with the onset of weaning, if the level of malnutrition remains high in the community over a long period of time we expect a cumulatively large pool of older children who are stunted. Again this finding is consistent with the findings in the MICS 2008 report.

While there are no primary school tuition fees and many children receive school books; education is not free. Many of the children that are out of school have left school for financial reasons. Although children without uniforms are sent home from school, only 1-3% of children receive uniforms. Moreover, many children are attending school without enough food in their bellies. Still, the main support provided to children and families is school books and pencils.

While we have noted the deficiencies in the provision of the material items; provision of these items is only a short-term measure in emergency situations. In the long term, households must become economically viable. Interventions such as cash transfers and other household economic strengthening activities can help families become self-sufficient, make their own decisions about caring for their children, and improve child health and human development.

We did not find gender disparities in enrolment or being at the right grade for age, but there were OVC and poverty-based disparities such that among 5-11 year olds, poor OVC were more than twice likely to be out of school than non-poor non-OVC. Also, among 12-17 year olds, poor OVC had twice the odds of being behind in grade compared to non-poor, non-OVC.

The scores from the Strengths and Difficulties tool indicate that many children experience conduct problems, emotional distress and social problems. Children may require a combination of high quality evidence based psychosocial support services as well as household economic strengthening support. The data also revealed gender disparities in psychosocial outcomes such that boys aged 5-11 and girls aged 12-17 years had the worse outcomes. Five to eleven year old boys more likely to have conduct, peer, and social problems compared to girls of the same age. Twelve to seventeen year old girls were 44% more likely to report emotional problems, 57% more likely to report peer problems, and 58% more likely to report conduct problems, compared to boys of the same age irrespective of OVC or poverty status. The combination of poverty and OVC was an independent predictor for social problems among 12-17 year olds. OVC programs should take into account such gender and vulnerability disparities in psychosocial wellbeing and design appropriate strategies to address the challenges faced by the different groups of children. Throughout the quantitative data, it is clear that disparities persist. Moreover, the combined OVC and poverty-based disparities are particularly glaring such that poor orphaned and vulnerable children live difficult lives and face a bleak future without adequate food, shelter, health, education and even hope.

We documented that few children and households receive any type of support. While there are OVC support services, the organizations generally provide services to a small number of children and families on a regular basis. Respondents from OVC support organizations often told us they provided the only services in the area. Households reported they were unable to afford transportation to reach services outside of their communities. Additionally, the quantitative data suggests that support is not always targeted to the children in the worst circumstances. However, the cross sectional study does not allow us to know the situation of children and families before they received support. It may be that they were the most vulnerable children but support facilitated important changes. This is unlikely given the lack of services provided and the fact that OVC service providers were vague about targeting criteria and procedures. Still, from this study, we cannot draw definitive conclusions about the situation of families prior to OVC service implementation or the targeting of services. To truly understand the impact of these programs, we must follow the cohort established in this study over time to identify which children and households are selected to receive services, observe and measure changes over time, and attribute changes to programs. We can, however, conclude that there are many children and families in a desperate situation that are not receiving any support.

While an in depth assessment of OVC care providers was beyond the scope of this particular round of the study, we did learn about some of the organizations providing services. In these organizations we found a commitment to children and families. Respondents described financial resource limitations in the face of great need and the challenges of relying upon community volunteers. They also described and demonstrated extremely low technical and organizational capacity. The majority of organizations were unable to clearly articulate their objectives, describe how they identify which children and families should participate in programs, link their objectives to their program inputs, activities, and outputs, or determine the program's outputs and impacts. They were also unable to establish logical connections between the needs of children and families and the services they offer in their programs.

We are confident that the findings from this study can be generalized through the study districts. The sampling methodology was rigorous and allows the findings to be generalized throughout the study population and extended to similar districts and provinces. However, in districts or

provinces with less poverty and fewer OVC, the situation within households may be better. In districts or provinces with worse poverty or a higher OVC prevalence, we would expect a dire situation. If there are large organizations offering a range of services, and the government prioritizes addressing the needs of vulnerable households, we might see a better situation for children and households. To the extent that districts and provinces have similar poverty levels, OVC prevalence rates, and minimal OVC services, we believe the results are generalizable.

This study has several strengths and weaknesses. First, one strength is that we utilized comprehensive survey instruments to capture the situation of children and their households. These survey tools and qualitative guides allowed us to check for internal validity within reports. Although the quantitative data relies heavily upon caregiver and child reports, we find that answers are internally consistent, thus increasing our confidence in the validity of reports.

Furthermore, we used a rigorous sampling methodology to ensure that we have representative sample of households in the study districts. Additionally, we conducted a range of research activities which allow us to learn about different issues both quantitatively and qualitatively and from many different viewpoints. The triangulation of data allows us to verify findings, learn more about each issue, and ultimately increases the study's internal and external validity, yielding a rigorous study.

One weakness of the study is that in one district, the Strengths and Difficulties questionnaire was not conducted with 12-17 year olds despite the fact that it was the poorest district where children may have been most likely to have significant emotional distress and problems. The findings for 12-17 year olds are based on children in the remaining three districts.

Also, it may be that we inadvertently selected sites with fewer OVC services than is typical throughout Mozambique. We know that some organizations have focused on different districts, but the degree to which the level of services is representative of the rest of Mozambique remains unclear.

Another possible weakness is that qualitative data was collected in local languages, translated into Portuguese and then into English. While the transcripts have face validity and make sense in the English version, it is possible that some issues were lost in translation. All transcripts were checked to ensure that translation was correct, however this was a monumental task given the number of transcripts.

Lastly, this is a baseline, cross sectional study. While we are able to document and gain much insight into the situation of children, families, and communities; to truly understand the changing situation of children and families and program impacts, it is essential to conduct subsequent rounds of this study, following the same children and families over time.

RECOMMENDATIONS

We offer the following recommendations in light of this study and these findings. We suggest that stakeholders:

- Examine the disconnect between the needs of households and OVC and the services currently being offered. Our study has revealed glaring challenges in household food security, poverty, psychosocial problems, and inadequate shelter. Current support services do not seem to address these challenges. We therefore recommend that more focus be on household economic strengthening activities, activities to increase household food security and psychosocial support. Within the household economic strengthening domain, stakeholders should consider income support.
- Increase the technical capacity within OVC support organizations, including connecting goals and objectives to program inputs and activities and outcomes and impacts; Support organizations require more oversight, training in program monitoring, and tools to help them measure impacts. They also need assistance to manage volunteers or paraprofessionals. Small CBOs should be supported to collect information that will improve their understanding of project results.
- Understand that many of the families that we met feel forsaken as they wait for assistance. Many families expressed frustration that their names are listed and they are promised services or support that does not materialize. Perhaps most importantly, many families are in grave need of support.
- Reconsider the OVC response strategy employed in Mozambique because of the low capacity within support organizations, the difficulty in managing volunteers, and targeting services to the most vulnerable households in the context of widespread need, the fact that current interventions may not result in the desired impacts.
- Considering the low technical capacity in many CBOs, simpler, more focused programs with fewer and more realistic expectations may help yield the desired results. Families and communities should be involved in thinking through the best way to reach the vulnerable children and families in a way that meets government and donor objectives.
- Provide greater government and donor oversight and monitor programs to ensure that services reach children and families.
- Examine these results against other available data and discuss how these findings are consistent with existing knowledge or data. What is new or different? Consider how this data can inform program implementation, policymakers, and donors. Also consider what additional analyses, using this data, would be helpful to inform the dialogue.
- [Government and donors should] Commit to on-going monitoring and evaluation for continued learning and accountability and so that better programs and services are provided for vulnerable children and families. The USAID Evaluation policy (at <http://www.usaid.gov/evaluation/>) provides helpful advice to guide stakeholders in thinking through how to integrate evaluation activities into program planning in order to improve program performance, reduce costs, increase benefits, confirm utility of policy/project, help program implementers make changes or improvements, generate support or influence policy decisions, and ensure a focus on highly vulnerable children and families

REFERENCES

- 1) Ministry of Women and Social Action. *Plan of Action for orphaned and other vulnerable Children*. Maputo : Ministry of Women and Social Action, 2006.
- 2) UNAIDS (2011): <http://www.unaids.org/en/regionscountries/countries/mozambique/>
- 3) Napica de Araújo, S. et al. *Mozambique Multiple Indicator Cluster Survey, 2008*. Maputo : National Statistics Institute, 2009.
- 4) PEPFAR Mozambique COP Report FY 2010
<http://www.pepfar.gov/documents/organization/145728.pdf>
- 5) <http://www.pepfar.gov/countries/mozambique/index.htm>
- 6) Ravnborg, Helle M., et al. *Gendered District Poverty Profiles and Poverty Monitoring: Kabarole, Masaka, Pallisa, Rakai and Tororo Districts, Uganda*. DIIS Working Paper 2004: 1. Copenhagen: Danish Institute for International Studies.
- 7) www.pedstest.com
- 8) Dorothy Ettling and Evelyn Mudaala Simfukwe (2006). *Child Development Assessment in Zambia*; unpublished.
- 9) Goodman R: The Strengths and Difficulties Questionnaire: a research note. *J Child Psychol Psychiatry* 1997, 38:581-586.
- 10) Goodman R: Psychometric properties of the Strengths and Difficulties Questionnaire. *J Am Acad Child Adolesc Psychiatry* 2001, 40:1337-1345.
- 11) <http://www.sdqinfo.com/b5.html>
- 12) *Journal of Pediatric Psychology*, Vol. 22, No. 3, 1997, pp. 399-421. The Development and Validation of the Children's Hope Scale
- 13) <http://www.crsprogramquality.org/ovcwt/ovcwt.html>
- 14) Marques et al. Validation of a Portuguese Version of the Children's Hope Scale. *School Psychology International*, Vol. 30, No. 5, 538-551 (2009)
- 15) Ministry of Planning and Development; National Directorate of Studies and Policy Analysis *Poverty and wellbeing in mozambique: Third national poverty assessment; October 2010.*
- 16) World Health Organisation, Technical report series number 854 - WHO, 1995.