

An Evaluation

Effects of Programs Supporting Orphans and Vulnerable Children: Key Findings, Emerging Issues, and Future Directions from Evaluations of Four Projects in Kenya and Tanzania

Prepared by:

Florence Nyangara, MEASURE Evaluation, Futures Group International, Washington

Tonya R. Thurman, MEASURE Evaluation, Tulane University School of Public Health, New Orleans, LA, USA

Paul Hutchinson, MEASURE Evaluation, Tulane University School of Public Health, New Orleans, LA, USA

Walter Obiero, MEASURE Evaluation, Futures Group International, Washington



This study was made possible by support from the U.S. Agency for International Development (USAID) under terms of Cooperative Agreement GPO-A-00-03-00003-00. The opinions expressed are those of the authors and do not necessarily reflect the views of USAID or the United States government.

Contents

Acknowledgements	4
Acronyms	4
Summary	5
Introduction	7
Rationale	9
Programs Evaluated	11
Methods	13
Study Designs	13
Sampling	14
Data Sources	15
Ethical Considerations	17
Analyses	17
Limitations	18
Key Evaluation Findings	19
Description of OVC	20
Home Visiting to OVC Households	22
Kids' Clubs for Children	25
Initiatives to Support Guardians	28
Strategies Targeting the General Community	28
Direct Material Support	29
Unintended Consequences	31
Emerging Evaluation Issues	33
Recommendations	41
Program Considerations	41
Future Directions for Evaluations of OVC Programs	43
References	47

Acknowledgements

We are grateful to many people who contributed to the realization of this study. We especially appreciate the cooperation of the program partners – Catholic Relief Services, Pathfinder International, and Integrated AIDS Program-Thika in Kenya; and The Salvation Army, Allamano, and CARE in Tanzania. Local research partners Population Studies Research Institute from the University of Nairobi in Kenya and AXIOS Foundation from Tanzania were also instrumental in achieving this activity and ensuring its quality.

We further acknowledge the input and support of other professionals within the international community who helped to achieve this study, such as: David Elkins, Jerusha Karuthiru, Kate Vorley, and Washington Omwomo from the U.S. Agency for International Development (USAID) in Kenya; Elizabeth Lema from USAID in Tanzania; Minki Chatterji and Kathy Buek, formerly of MEASURE Evaluation; Scott Steward, John Novak, and Kathleen Handley from USAID, and members of the U.S. Government’s (USG’s) OVC Technical Working Group and the Office of the Global AIDS Coordinator in Washington; Rick Berzon, formerly of USAID/Washington; and Scott Moreland, MEASURE Evaluation at Futures Group International, Chapel Hill, NC, USA, for their support and insights throughout the development of this study.

We also wish to thank volunteers and local leaders for their support and commitment to the study in both Kenya and Tanzania. Most importantly, we extend our respect and appreciation to the children and guardians who gave freely of their time and shared sensitive and intimate information to increase our understanding of their circumstances. It is our hope they and others like them ultimately benefit from the lessons gleaned in this study.

Acronyms

AIDS	acquired immune deficiency syndrome
ANOVA	analysis of variance
CRS	Catholic Relief Services
DDIU	data demand and information use
HBC	home-based care
HIV	human immunodeficiency virus
IAP	Integrated AIDS Program
IRB	institutional review board
MVC	most-vulnerable children
NGO	nongovernmental organization
OVC	orphans and vulnerable children
PEPFAR	U.S. President’s Emergency Plan for AIDS Relief
PLWHA	people living with HIV and AIDS
RCT	randomized controlled trial
SILC	savings and internal lending communities
SDQ	Strengths and Difficulties Questionnaire
TSA	The Salvation Army
USAID	U.S. Agency for International Development

Summary

This report provides a summary of key findings from evaluations of four programs, two in Kenya and two in Tanzania, supporting orphans and other vulnerable children (OVC). This study was conducted by MEASURE Evaluation in 2006-2007 and funded by the U.S. Agency for International Development (USAID) through the U.S. President's Emergency Plan for AIDS Relief (PEPFAR). The overall aim of these evaluations was to ascertain the extent to which program interventions are effective in improving the well-being of OVC and their families, and the interventions' cost-effectiveness in achieving key outcomes. This report focuses on the overarching outcomes, emerging issues, and lessons learned from these evaluation studies of OVC programs. Reflections as to the implications of the findings are offered to provide guidance to OVC service providers, donors, and policy-makers to make informed decisions that ultimately improve the well-being of children and their families.

The evaluations of all four programs focused on specific intervention components, including home visits by trained volunteers, kids' clubs, support group and income-generating activities for guardians, community HIV education and OVC sensitization activities, and the provision of material support, such as school supplies, food, and health services. To examine program effectiveness, a post-test study design was applied in each study site, where those exposed to each intervention component were compared with a similar group of subjects who were not exposed to such interventions. This project employed a number of data collection and analysis techniques to ensure a thorough understanding of the program effects, including conducting case studies of each program, completing surveys with both children and guardians, and a cost-effectiveness analysis linking the costs of services to the outcome evaluation.

The evaluation project was able to identify several key areas of success among the various OVC programs, as well as areas where improvement can be made. The programs showed an ability to effectively identify and target highly vulnerable children with community committee processes. Data from these studies demonstrated that children on the beneficiary list were more vulnerable than those in the general population on several fronts, ranging from being orphans to living in food-insecure households. These findings demonstrate the value of engaging community members in identifying OVC, as well as highlight the risks that make children in their community most vulnerable, in addition to the impacts of HIV/AIDS.

Some interventions that were employed across study sites, such as home visiting and kids' clubs, revealed mixed results. Home visiting by trained volunteers to OVC households was implemented by three programs and kids' club activities were implemented by two programs. In all three program sites, home visiting was found to occur with less frequency than expected and only few psychosocial or health effects emerged. Home visiting also appeared to achieve greater success in benefiting the psychosocial outcomes of children (better behaviors, self-esteem, social skills, and adult support) than those of guardians (only family functioning). Moreover, even among children, the effects of home visiting varied across programs (Allamano, CRS, and TSA). The varied and overall scarcity of effects of home visiting may be explained by the level of training and skills of home visiting volunteers, the range of services they were equipped to offer, and the volunteer to beneficiary ratio.

The kids' clubs were another key intervention implemented by the two programs we evaluated in Tanzania. Similarly, the analyses revealed that their effect differed between the two programs,

where participation in one of them was associated with significantly fewer emotional problems, higher levels of pro-social behavior, and increased adult support; while participation in the other showed no effects on the child's psychosocial outcomes we examined. The ability of kids' clubs to result in positive psychosocial outcomes for children appeared to be correlated with the extent of volunteer skills and program supervision, the structure, and comprehension of the kids' clubs curricula. These factors should be considered by program managers and policy-makers in the development of future interventions.

Initiatives extending beyond OVC to include guardians and the general community were found to be associated with some positive outcomes for guardians, as well as for the children under their care. For instance, support group participation of OVC guardians was associated with positive psychosocial outcomes for guardians as well as less household abuse and more prosocial behavior of the children in their household. Further, two interventions that provided guardians with an opportunity to supplement family income were associated with reduced household food insecurity and achieved such success at a low cost per beneficiary. Additionally, study findings highlight the importance of involving guardians in the development of interventions targeting children.

Community education and sensitization efforts demonstrated some favorable results, including improvements in child protection outcomes and HIV-prevention knowledge. In particular, school-based HIV education initiatives were found to be rather cost-effective. However, findings suggest the importance of expanding the curriculum to address a wider spectrum of issues that would promote HIV protective practices, such as addressing misconceptions and encouraging other life skills. Similarly, results from one study demonstrated the importance of more intensive community stigma reduction initiatives.

The provision of direct material support appeared also to have mixed effects. For instance, provision

of educational support was not associated with positive educational outcomes; however, favorable psychosocial outcomes were found among those with sufficient school supplies. Provision of household food support was linked with reduced food insecurity only in instances where it was provided on a regular basis. One study demonstrated how home visiting volunteers may encourage increased utilization of health services; however, another study presents data and explanation illustrating that OVC guardians may not always capitalize on free health services offered to them. Further, findings suggest some potential unintended consequences of targeting OVC and their families, such as community jealousy and resentment, stigmatization of beneficiaries, and increased reliance on nongovernmental support.

Other lessons that emerged from the evaluation process point to issues pertaining to the improvement of program targeting, monitoring, and future evaluations. Across the programs investigated, problems with the validity of beneficiary lists and program coverage became apparent, as well as the neglect of adolescents. Lastly, the limitations of the post-test design and uniformity and selection of survey indicators applied in these evaluations offer considerations for enriching future evaluations.

In light of these findings, several recommendations for the development and enhancement of OVC programs are offered, including the following:

- Develop and encourage comprehensive training and support for volunteers.
- Engage guardians and caregivers in interventions addressing OVC needs, including targeting guardians specifically with interventions and gathering guardian input on the design of interventions for children.
- Enhance linkages between OVC care and other support providers, such as humanitarian organizations or direct health care providers.

- Improve ongoing program monitoring systems to register and track OVC.
- Incorporate regular assessments of program coverage and client participation.

In addition, some suggestions can be made for future evaluations of existing OVC programs. For example, the use of case studies prior to the development of survey instruments is a worthwhile investment, as is the development of culturally appropriate survey measurement tools for OVC in the context of sub-Saharan Africa and the HIV epidemic. The evaluation of OVC programs for adolescents and in urban areas is also greatly needed. The capacity of OVC programs to monitor and evaluate their own projects is another area for improvement. Support for this activity can be given both in specialized training and resources for programmers and through funding specifically allocated to evaluation. Further, increased rigor in future evaluations, such as experimental and longitudinal designs, would offer a more solid evidence-base to inform programmatic and funding decisions. Lastly, in addition to the lessons already provided, this study presents further opportunities to expand the knowledge-base concerning best practices for OVC, as participants provided consent and contact information to participate in a follow-up survey. Future data collection among these participants would offer better understanding of program impacts over time.

The evaluation of these four OVC programs in Kenya and Tanzania provides insight into the state of orphans and vulnerable children in East Africa. These evaluations also shed light on the qualities of successful program interventions and highlight the importance of effective targeting and program strategies for enhancing the well-being of highly vulnerable children.

Introduction

In 2006-07, MEASURE Evaluation, with U.S. President's Emergency Plan for AIDS Relief (PEPFAR) funding from the U.S. Agency for International Development (USAID), conducted an evaluation of four programs providing care and support to orphans and other vulnerable children (OVC) — two in Kenya and two in Tanzania. The overall purpose of these multi-site evaluations was to determine what aspects and strategies of these OVC programs contributed to improved well-being among children and their caregivers, with a view to guiding program scale-up and the efficient use of the scarce resources.

This report focuses on the overarching outcomes, emerging issues, and lessons learned from these evaluation studies of OVC programs in Kenya and Tanzania. It presents summary information across programs about beneficiaries, their intervention exposure, and key findings from the outcome assessments, as well as program information from the case studies. Details pertaining to these results, as well as additional findings not highlighted in this synthesis, can be found in the individual project evaluation reports¹⁻⁶ and case studies.⁷⁻¹¹

This report further includes recommendations on how to bridge the gap between what is currently done and what programs might do to effectively improve the well-being of OVC and their families. The methods and related challenges are described and guidance is offered for future research on OVC programs, to continue to fill the evidence gap.

Rationale

In sub-Saharan Africa, the numbers of children under 18 years of age who have lost one or both parents has drastically increased, largely due to the HIV/AIDS epidemic in the region.¹² In addition, several million other children live with chronically ill and dying parents, and others live in dire poverty and food-insecure households. In response, governments, civil society, and international organizations have developed programs to provide protection, care, and support to OVC and their families. These programs are informed by the five core strategic objectives of the framework for protection, care, and support of OVC described in Figure 1.¹³ While guidelines exist, there is little empirical evidence on “what

Each of the programs evaluated have adopted one or more of the following key strategies:

- **Strengthen the capacity of families to protect and care for orphans and vulnerable children by prolonging the lives of parents and providing economic, psychosocial and other support.**
- **Mobilize and support community-based responses.**
- **Ensure access for orphans and vulnerable children to essential services, including education, health care, birth registration and others.**
- **Ensure that governments protect the most vulnerable children through improved policy and legislation and by channeling resources to families and communities.**
- **Raise awareness at all levels through advocacy and social mobilization to create a supportive environment for children and families affected by HIV/AIDS.**

Figure 1. Core strategies for the protection, care, and support of OVC.¹³

works” to improve the well-being of OVC and their families. Thus, the purpose of this evaluation study in four unique settings in Kenya and Tanzania was to determine which program approaches and interventions strategies make a measurable difference in the lives of children and their families. This information can help program managers and policy-makers to make informed decisions in developing and scaling-up effective strategies, ultimately reaching larger numbers of OVC with greater efficiency.

Programs Evaluated

Four OVC programs, two in Kenya and two in Tanzania, participated in this evaluation project. Table 1 describes the four programs evaluated, including the location where the investigation occurred and the key intervention strategies assessed. Three evaluations occurred in rural areas and one took place in a peri-urban environment. The evaluations focused on very specific intervention components including: home visits by trained volunteers, kids' clubs, support groups and income-generating activities for guardians, community sensitization and HIV prevention activities, and the provision of direct material support such as school supplies, food and health services. However, each of the programs included in this evaluation offered much more comprehensive programs, including intervention components beyond the scope of this evaluation. Readers are encouraged to review the individual

program case studies, which provide detailed descriptions of each participating program, including their implementation approaches, full range of activities, and lessons learned.⁷⁻¹¹

Table 1. Overview of the Four Programs and Strategies Evaluated by Country and Study Site

Country	Program	Study Site	Intervention Strategy Evaluated
Kenya	Community-Based HIV/AIDS Prevention, Care and Support Program implemented by Pathfinder and Integrated AIDS Program (IAP)	Thika District (rural)	<ul style="list-style-type: none"> • home visits and home-based care by trained volunteers • school-based HIV education • OVC care and support community sensitization • VCT Promotion and services
Kenya	Kilifi OVC Project implemented by Catholic Relief Services (CRS).	Kilifi District (rural)	<ul style="list-style-type: none"> • home visits and support from trained volunteers • support groups for guardians • income generation for guardians (savings & loans committees) • educational support • food support • linkages to a health clinic • school-based HIV education
Tanzania	Tumaini Project implemented by CARE International, Family Health International, and a faith-based organization, Allamano.	Iringa Region (peri-urban)	<ul style="list-style-type: none"> • home visits and home-based care from trained volunteers • kids' clubs for OVC • income generation for guardians (gardening and livestock training) • educational support • food support • linkages to a health clinic
Tanzania	Mama Mkubwa & Kids Club implemented by The Salvation Army (TSA) Tanzania command.	Mbeya Region (rural)	<ul style="list-style-type: none"> • home visits and support from trained volunteers • kids' clubs for all community children, including OVC

Methods

Conceptualizing a synchronized evaluation approach across multiple and diverse OVC programs presents a number of considerations. While the four programs investigated have a similar goal — the improvement of OVC well-being — they differ substantially in the types of services they provide. Their approaches may include combinations of direct support to OVC, indirect support to OVC guardians, or more widespread support to communities as a whole. Each program also tends to have unique and multiple objectives affecting myriad outcomes. The ability of a program to influence such outcomes is also dependent upon their organizational capacity and resources, which can vary considerably across programs. Methodological challenges are also presented by the fact that beneficiaries and implementation sites are non-randomly selected and it can be both impractical and unethical to deny services to identified children and families in need. To address these considerations, this evaluation project employed a number of data collection and analyses techniques to ensure a better understanding of program effects, including collecting qualitative and quantitative data, conducting case studies of the programs, completing surveys with children and guardians, and, at times, incorporating samples drawn from the general child population (i.e., all community children, both non-OVC and OVC) as well as from existing beneficiary lists (identified OVC in the community). A cost-effectiveness analysis linking costs of services to the outcome evaluation across the four programs was also conducted.

To ensure relevance and utility of the information gathered from these evaluations, the research process incorporated a strong data demand and information use (DDIU) component throughout the evaluation process. At the outset, the research team held consultation meetings with OVC experts and key stakeholders, including USAID, to discuss

and agree on the program information needs and use, study objectives, methods, outcomes, study sites and programs to evaluate, and timelines. These processes helped to develop the study protocol and make other decisions regarding the study.

Study Designs

Further, due to limited time and resources as well as ethical dilemmas, each study applied a post-test only design whereby program participants were compared to similar respondents slated to receive the services in the future. Thus, there was only one round of data collection at each site and program participants were compared to similar, but non-participant, individuals. As each of the four programs is unique in its intervention approach for supporting OVC, the study techniques adapted for each program evaluation differed slightly.

Table 2 summarizes the research designs for each of the programs. In each case, the evaluation relies on post-intervention measurement with non-experimental intervention and comparison groups. For three of the studies — Integrated AIDS Program (IAP), Catholic Relief Services (CRS), and The Salvation Army (TSA) Tanzania command — children and their guardians within the intervention and comparison groups were all from the same community (i.e., village). However, the Allamano study utilized a comparison group of children and their guardians from a neighboring community (i.e., a nearby district) that were slated to receive program support in the near future. It is notable that while these three evaluations were initially designed to compare outcomes between the intervention and comparison groups, ultimately, the outcomes of those “exposed” and those who were “unexposed” to specific interventions were examined across each of the study sites. For the IAP evaluation, a community survey was conducted where intervention and comparison households were determined by self-reported exposure to program activities.

Sampling

In all four evaluations, the respondents were children aged between 8-14 years and their primary caregivers. However, sampling methods differed slightly in the four studies. The sampling frames used in the CRS, TSA, and Allamano studies were obtained from program lists of OVC that had been identified by local community committees. The lists included children who had received services for one year or more from the program, as well as those newly identified as vulnerable and slated to receive services soon after data collection. These lists were narrowed to include only households with children aged 8-14 and systematic sampling procedures were applied to select participants. However, for the TSA study, additional data were collected from children and guardians in neighboring villages where the TSA program planned a scale-up. In this case, OVC had yet to be identified, so children aged 8-14 were randomly selected from community registers. While these children were expected to serve as

the comparison group, these data was not used in assessing program effectiveness as they did not include a sufficient number of OVC. However, as presented later in this report, these data were useful in discerning characteristics of OVC relative to non-OVC. The fourth study (IAP) also used a broader community survey approach to identify all children age 8-14, as this study was designed to assess program impact on OVC and their guardians as well as non-OVC community members. All households in the six geographical areas in the study district were approached, and those with a child aged 8-14 were invited to participate. At each evaluation site, the research team made every effort to locate and conduct face-to-face interviews with all children and caregivers selected for the study.

For each study, up to two children aged 8-14 years per household were interviewed. In cases where there were three or more children within this age range, the interviewers selected two children randomly (either on-site, in the case of the IAP

Table 2. Research Designs and Comparison Groups for OVC Programs in Kenya and Tanzania

	Kenya		Tanzania	
	Integrated AIDS Program-Thika	Catholic Relief Services	Allamano	The Salvation Army
Study design	Post-test	Post-test	Post-test	Post-test
Intervention group	Self-reported exposure to program interventions among community members living in area where the program had operated for at least three years	Guardians and their children receiving services for at least two years	PLWHA and their children receiving services for at least one year	List of beneficiary children participating in kids' clubs in a community where the program had operated for at least one year
Comparison group	Community members in same areas that did not report exposure to program interventions	Guardians and their children in same areas but not yet receiving services	Newly identified PLWHA and their children in a neighboring community but not yet receiving services	Children in same communities who were not exposed to kids' clubs or other TSA interventions
Sample				
<i>Children aged 8-14</i>	3,423	1,036	1,104	564
<i>Guardians</i>	2,487	771	845	488

Note: Sample sizes for intervention and comparison groups varied by program strategy (see Sampling section for details).

community-based study in Kenya; or prior to fieldwork, for the studies utilizing beneficiary lists). With the possibility of up to two children per household, the total sample of children is larger than the sample of guardians. The final sample sizes for each study are presented in Table 2.

The sample sizes differed for each of the program evaluations. The largest sample was among IAP, where 2,487 guardians and 3,423 child interviews were conducted. The smallest sample was for the TSA evaluation, for which interviews were completed with 488 guardians and 564 children aged 8-14 years (however, as mentioned above, an additional 601 children and 490 guardians from the general community were interviewed, but these data were not used in assessments of program effectiveness). The CRS project sample included 1,036 children and 771 guardians, while the Allamano sample involved 1,104 children and 845 guardians. Further details about study participants and the sampling procedures specific to each site can be found in the individual project evaluation reports.¹⁻⁶

Data Sources

Data sources included information concerning program characteristics through case study activities, as well as information directly from participants through survey interviews. Case studies on each program were conducted in mid-2006. They helped to elucidate the details of program operations in terms of its intervention strategies, approaches to working with the community, target population, beneficiary selection process, and services provided. The case studies further provided lessons learned from program implementation including challenges and successes that offer explanation for some of the survey findings. Methods for the case study included document review, observation, and in-depth interviews.⁷⁻¹¹

Following the case studies, in late 2006, surveys were conducted with children and their caregivers across the four study sites in Kenya and Tanzania to assess the effects of the program interventions on their well-being. All surveys were conducted

in the appropriate local language, including Kenyan and Tanzanian Kiswahili and other tribal languages (i.e., Bena and Kikuyu), where necessary. The same questionnaire content was applied for each evaluation to allow for comparisons across sites, with the exception of intervention-specific exposure modules adapted for each program based on the kind of support they provide. In total, four questionnaires were utilized — three of which were administered to the child's parent or caregiver, and a fourth was administered directly to the child aged 8-14 years.

Table 3 provides a summary of the different indicators within the survey instruments. The questionnaires collected data on household characteristics, demographic profiles of respondents, and the well-being of the child and guardian according to food and nutrition, physical health, community support, psychosocial, education, HIV and AIDS prevention, economic security, shelter and care, and child protection. Where possible, the surveys incorporated established measures and standardized scales. In addition to child-level outcomes, indicators included those reflecting the well-being of their parents or caregiver and family and community circumstances. Changes in the child's immediate surroundings are considered important impacts and indicative of potentially long-term effects on the well-being of children.

To supplement the case studies and survey data, focus groups among children, guardians, and community health workers were also conducted as part of the two evaluations in Kenya. These data are not referenced in this report. Further details on these data sources and related findings can be found in the respective individual project evaluation reports.^{2,4}

Costing data were also collected, to facilitate cost-effectiveness analyses. Data on program resources were gathered from multiple sources, including workplans, budgets, expenditure summaries, and interviews with program personnel. Cost

Table 3. Questionnaire Contents

	Child Questionnaire (Age 8-14)	Caregiver Questionnaire
DEMOGRAPHICS	<ul style="list-style-type: none"> • age • gender 	<ul style="list-style-type: none"> • age • gender • educational achievement • marital status • religiosity • relationship to child • number of children and adults in the household • OVC status of child (i.e., ill, absence or death of parents)
FOOD AND NUTRITION		<ul style="list-style-type: none"> • household food security¹⁴
PHYSICAL HEALTH	<ul style="list-style-type: none"> • perceived health status 	<ul style="list-style-type: none"> • perceived child health status • unmet need for child health services • perceived adult health status • adult ability to function • adult access to care • adult chronic illness¹⁵ • presence of ill adults and children in the home
COMMUNITY SUPPORT	<ul style="list-style-type: none"> • support networks (extended family, peer relationships, neighbors, significant adult,¹⁶ physical abuse²⁵) • discriminatory attitudes/behaviors toward orphans and families affected by HIV/AIDS 	<ul style="list-style-type: none"> • in-kind support received from the community • support networks of caregiver (extended family, neighbors) • caregiver Marginalization¹⁷ • discriminatory attitudes/behaviors toward orphans and families affected by HIV/AIDS
PSYCHOSOCIAL	<ul style="list-style-type: none"> • personal self-esteem¹⁸ • family relationships/self-esteem¹⁸ • social isolation¹⁹ 	<ul style="list-style-type: none"> • quality of life scales (for adult): positive feelings; negative feelings²⁰ • attitudes toward child²¹ • child strengths and difficulties²² • family functioning²³
EDUCATION	<ul style="list-style-type: none"> • ever attended? if not, why? • currently attending? if not, why? • age started, age stopped • grade/level • possession of uniform/supplies 	<ul style="list-style-type: none"> • child in school ever and at time of the survey • child's attendance at school
HIV & AIDS PREVENTION	<ul style="list-style-type: none"> • HIV and AIDS knowledge²⁴ • proximity to epidemic • adolescent addendum for youth aged 12-14 (ever sex, age first sex, age first partner, condom use last sex) 	<ul style="list-style-type: none"> • caregiver ever had an HIV test • caregiver proximity to epidemic
ECONOMIC SECURITY	<ul style="list-style-type: none"> • material well-being (e.g., clothes, shoes, blanket, etc.) 	<ul style="list-style-type: none"> • household asset index (e.g., toilet facility, water source, type of roof and floor, livestock, phone, etc.)
SHELTER AND CARE	<ul style="list-style-type: none"> • living with natural siblings under 18 (not separated) • number of different homes in past year 	<ul style="list-style-type: none"> • child birth registration, possession of identity documents • caregiver had designated alternative caregiver for child
CHILD PROTECTION	<ul style="list-style-type: none"> • physical abuse²⁵ • household-level discrimination • awareness/access to help 	<ul style="list-style-type: none"> • caregiver awareness, access to help

Note: Each survey also included program-specific intervention exposure questions.

information was collected from the central program level and, as appropriate, community-based organizations that implemented the program as sub-grantees. Cost-effectiveness analyses were undertaken to examine the resources used to achieve a per unit change in outcomes. Further details on the methodology of the costing component and detailed results of this undertaking are presented elsewhere.⁶

Ethical Considerations

Before data collection, ethical approval for the research protocol and all data collection instruments were obtained from the Tulane University institutional review board in the United States, as well as from the internal review boards of each study country: Kenyatta National Hospital in Kenya and the National Institute for Medical Research and the Commission for Science and Technology in Tanzania. Other ethical procedures including protocols for consent, referrals, and confidentiality were also put in place before data collection started. All potential respondents were informed that their participation was voluntary and did not affect their eligibility to receive services from the program, and their verbal consent for participation was obtained. Caregivers provided consent for themselves and their children. Assent was also acquired from children themselves, using child-friendly language to support their understanding. If consent was given, the interviewer signed the consent form for the participant. To maintain confidentiality, the survey cover sheet, which included identifying information, was removed prior to data entry and only unique numerical identifiers were used.

Analyses

As mentioned previously, while the evaluations were initially designed to compare outcomes between the intervention and comparison groups, the analyses ultimately focused on outcomes between exposed and unexposed individuals (caregivers and children). This was because the exploratory analyses revealed that some subjects in the intervention group reported having “no

exposure” and some in the comparison group reported “exposure” to interventions. However, to convey the level of participation among expected beneficiaries, descriptions pertaining to program exposure are limited to the original intervention group samples.

Systematic data analysis approaches were applied to assess program effectiveness. First, we tested for whether there was a significant association between each intervention and key outcomes, using one-way analysis of variance (ANOVA) or chi-square tests for continuous and categorical outcomes, respectively. If the relationship was significant ($p < 0.05$), multivariate analysis was conducted to assess whether these differences persisted after controlling for confounding variables using linear regression or logistic regression, as appropriate. The cost-effectiveness analyses components of this study applied ordinary least squares regression and probit models that also controlled for endogeneity (i.e., accounting for confounding of self-selection and other existing measurable characteristics of program participants that may differ from non-participants). The control variables applied across each of the studies were as follows:

- **Guardians** — Age, gender, marital status, level of education, illness status of guardian, household socioeconomic status, number of children in the household.
- **Children age 8-14** — All guardian and household characteristics above and such child characteristics as age, gender, orphan status, and relationship to guardian.

Where possible, further analyses explored whether the extent of program exposure (i.e., frequency and duration of participation) influenced the outcomes. For the outcomes using scales, internal consistency (reliability) was assessed using Cronbach’s coefficient alpha. An alpha of 0.60 or higher was considered acceptable for this study.

Limitations

When interpreting the results of this study, it is important to consider the limitations. The main

limitations were the application of a post-test study design, where outcomes for participants were compared to non-participants. Several limitations exist with this approach:

Post-test only design — For all of the programs, no baseline data collection was undertaken. Much of the sample had therefore been exposed to interventions for some time prior to being surveyed. As a result, the full measure of the program's effect – the magnitude of change in an outcome from a pre-intervention baseline to a post-intervention follow-up – cannot be ascertained. Further, the available comparison groups – both non-OVC households and OVC households that were delayed in receiving interventions – were unlikely to have equivalent outcomes at the baseline, tending perhaps to already appear better or worse off than OVC households. Thus, there is no way of knowing whether it is the initial differences between the two groups or the intervention that accounted for any observed differences in outcomes. The “unexposed group” may be different from those receiving interventions from the start in regard to their household, social, cultural, and other demographic factors which could account for the observed differences, making it difficult to conclude that the interventions are responsible for any potential effects.

Non-random program targeting — Rationally, program interventions are likely to be targeted to those households and OVCs most in need. This means that, viewed at a point in time, households and OVCs that receive program services may appear worse than just about any feasible comparison group – either non-OVC households or OVC households that have not yet received services.

Self-selection — Another form of non-random exposure to program interventions is that some individuals may choose to participate in interventions, such as attending a kids' club meeting or income-generating activities training. As such, differences may exist between individuals

who self-selected to participate and those who did not. Even among households with an OVC, those that choose to participate may be very different than those who do not participate, perhaps being more knowledgeable about caring practices, being more motivated to seek help, or possessing some other enabling characteristic that will confound estimates of program effectiveness.

Measurement error in exposure to interventions — For many of the interventions, the only measures of whether or not households received services were self-reported affirmative responses to survey questions. This may lead to recall bias, exaggerations, or underreporting as respondents may differ in their recall and/or motivations.

Due to the above limitations, it is not possible to ascertain definitively whether or not the associations found between program interventions and child/caregiver outcomes are due to the services received or pre-existing, unknown differences between individuals/groups. However, this study used multiple sources of data (case studies, qualitative and quantitative) to help minimize the effects of these potential biases. In addition, analyses techniques applied helped control for any measurable differences in the demographic profile and other confounding factors

Readers should also be aware that this evaluation did not cover all possible impacts of each program because not all intervention strategies employed could be assessed, due to small exposure among the sample to some initiatives. Further, the broader intervention approaches to build the capacity of community committees and nongovernmental organizations were not evaluated. Lastly, the study's focus on children aged 8-14 leaves unknown the impact of these interventions on children outside this age group, and that of their caregivers.

Key Evaluation Findings

This section imparts a summary of key results emerging from the four program evaluations and cost-effectiveness analyses. Figure 2 provides an overview of the focal points of this discussion. First, a description of the beneficiaries across the four studies is presented, including indicators that reflect their vulnerability. The evaluation results across these programs are then discussed. The impact assessments concentrated on a range of program strategies aiming to improve OVC well-being. Their approaches included direct support to children, as well as indirect support through initiatives that target their guardians and the broader community. Results presented here address the impact of direct support strategies such as home visiting, kids' clubs, and the provision of material goods. Evaluation results

stemming from intervention approaches that provide support to OVC guardians or more widespread support to communities as a whole are also presented. Lastly, findings that highlight potential unintended consequences of serving OVC and their households are discussed. Unless otherwise indicated, all references to effects or an association between program strategies and favorable outcomes were significant at $p < 0.05$ in multivariate analyses that controlled for background characteristics. To increase understanding of the findings, effectiveness analyses of survey data are complemented by other quantitative results from the surveys and information gleaned from the case studies that describes the quality, type, and frequency of interventions beneficiaries received.

- *descriptions of OVC program beneficiaries and their households*
- *impact of home visiting on children and guardians' psychosocial and physical health outcomes*
- *impact of kids' clubs on children's psychosocial outcome*
- *impact of initiatives targeting guardians (e.g., effects of support groups on the psychosocial outcomes of guardians and the care and treatment of children in their household, and on income-generating activities on household food security)*
- *impact of community targeted initiatives (e.g., effects of school and community-based HIV interventions on children's HIV knowledge levels, community education and sensitization activities on child protection outcomes and stigma levels of participants)*
- *impact of direct material support (e.g., effects of food support on household food security, school supplies on children's education attainment and psychosocial outcomes, and health services for children and guardians on their physical health outcomes)*
- *any unintended consequences that emerge from program participation*

Figure 2. Evaluation findings discussed mainly focused on key programmatic issues, including those listed above.

Description of OVC

Table 4 presents key characteristics of the OVC samples from the three study sites that relied on beneficiary lists (i.e., CRS in Kenya, and TSA and Allamano in Tanzania). These features reflect the vulnerability of these children and their households. For instance, the majority of children in all the communities surveyed were orphans, and at least one in five children lived with sickly primary caregivers. Close to half of children were cared for by someone other than their mother and approximately a quarter had a primary caregiver

age 50 or above. More than 85% of children across all study sites resided in food insecure households (moderate to severe). In addition, the majority lacked basic needs such as a mattress, pair of shoes, and a blanket.

Children in these samples were selected as beneficiaries of these programs through community-led processes. In Tanzania, identification of OVC is harmonized across the two programs as they rely on the government's Ministry of Health and Social Welfare national most-vulnerable children (MVC) committees

Table 4. Selected Vulnerability Characteristics of Children Identified by Community Committees by Study Site (Percent of Total N)

	Catholic Relief Services (N = 1036)	Allamano (N=1104)	The Salvation Army (N = 564)
Orphan Status			
Not an orphan	25.9	14.3	33.7
Single orphans	12.6	49.7	40.6
Double orphans	61.5	36.1	25.6
Orphans (all types)	74.1	85.7	66.3
Affected by Illness			
Living in household with an ill adult	28.0	26.4	34.6
Chronically ill primary caregiver/guardian	21.9	21.0	28.7
Characteristics of Child's Caregiver			
Primary caregiver is not child's biological mother	41.7	53.3	47.4
Primary caregiver is age 50 or older	23.3	32.8	23.6
Living Circumstances			
Child lived in two or more households in past year	13.2	14.2	14.2
Child reported not living with all of his/her siblings aged <18*	7.4	11.8	10.4
Household Food Security			
Moderate food insecurity	10.4	45.4	41.1
Severe food insecurity	86.2	43.7	46.0
Child's Material Well-being Status			
Child lacked a blanket	86.0	58.2	55.1
Child lacked a pair of shoes	79.5	58.2	57.8
Child lacked at least two sets of clothes	34.3	33.5	58.2
Child lacked a mattress	81.3	70.5	94.1
Child lacked a bed net	70.5	86.5	97.3

* Sample size is limited to only children who reported having one or more siblings younger than age 18.

for this process. The committees are dispersed throughout Tanzania and members are trained on national guidelines for identification and support of MVC. In Kenya, there are no national guidelines in place for communities to follow in identifying OVC. As a result, the OVC identification processes are community and program-specific. However, CRS has established its own process similar to MVC committees in Tanzania, known as village management committees, by which members are mobilized and trained to identify OVC in their community and ultimately develop a beneficiary list for CRS to consider.

It is evident that the community committee processes resulted in identification of MVC, including orphans, in their communities. For instance, the beneficiary list from Allamano includes 85.7% of orphans while only 17.4% of all children in Iringa district were orphans.²⁶ On the other hand, the beneficiary study sample obtained

from Allamano consisted of 85.7% orphans, which is indicative of an effective identification process of OVC in the area. Similarly, in Kenya, while HIV prevalence in Kilifi District is relatively low at 2.5%,²⁷ 74% of the CRS beneficiary sample were orphans. While the proportion of OVC within the general community may be small, the beneficiary lists included a large proportion of such children.

Data from the TSA study in Mbeya Region also provides an indication of the effectiveness of using the community committees in identifying the most vulnerable children. In addition to the list of beneficiaries obtained from the intervention area (shown in Table 4), the TSA study also collected data from a random sample of all children aged 8-14 that include OVC and non-OVC and obtained from village registers in a neighboring community. Figure 3 contrasts select characteristics of these children from the

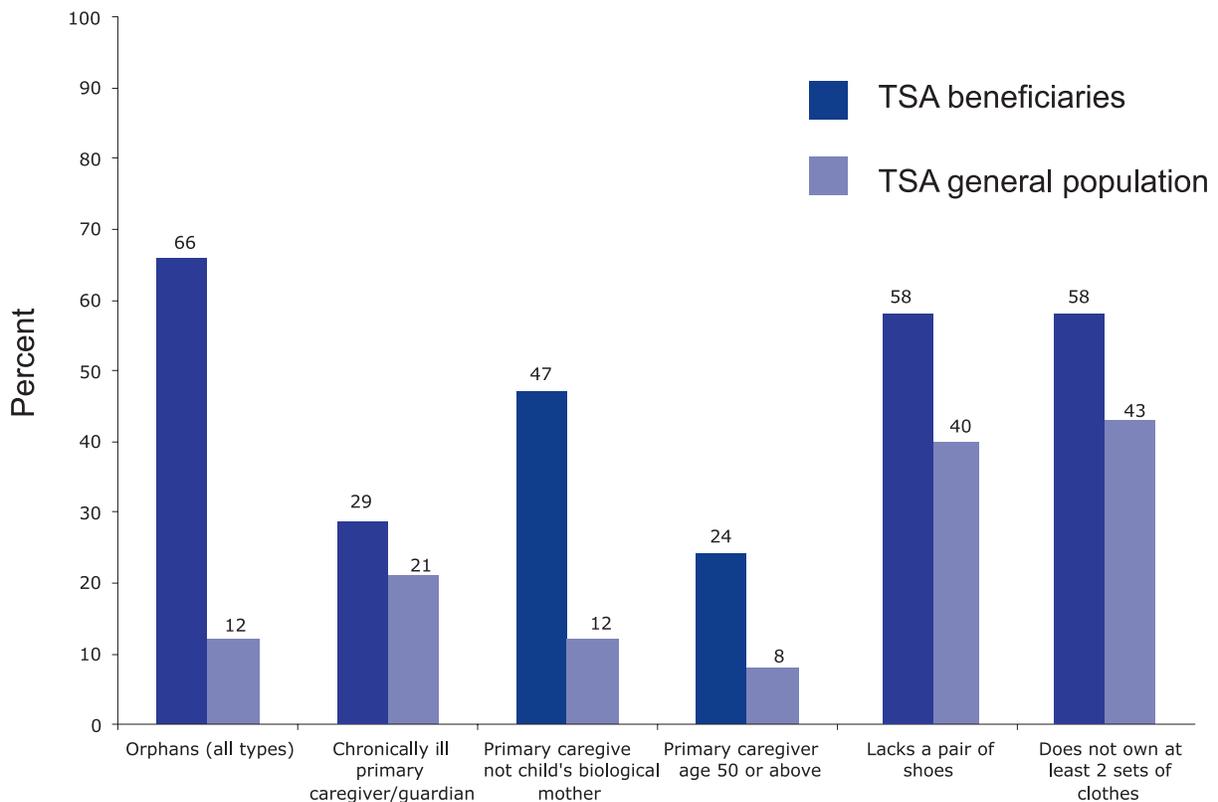


Figure 3. Vulnerability characteristics of TSA beneficiaries versus the general population of children in adjacent community, but within the same region, in Tanzania (Mbeya).

community-based sample relative to the OVC beneficiary list. Among the general community children sample, just less than 12% were orphans, whereas 66% of beneficiaries were orphans among those listed. A similar pattern was also observed with the percentage of children whose primary caregivers were over 50 years old or were not the biological mothers. Further, beyond orphan status, it is clear that community committees considered other vulnerability criteria such as living in a household with a chronically ill adult or primary caregiver, and other proxy measures for extreme poverty such as food insecurity and lack of basic materials. Those who were randomly selected from community registers were less likely to have unmet basic needs such as having a pair of shoes and two sets of clothes and/or food. These findings support and reiterate that committees were able to locate and identify some of the most vulnerable children in the community.

Home Visiting to OVC Households

Home visiting was the most common intervention approach, instituted by each of the four programs. This evaluation examined the effects of home visiting on child and caregiver health and psychosocial outcomes across three programs: CRS in Kenya, and Allamano and TSA in Tanzania. In each of these programs, volunteers were trained in a range of skills and tasked to

make regular home visits to identified OVC and their families. Home visiting volunteers were expected to provide psychosocial support, health education, home-based care, and other practical support, including linking them to other services as needed, as well as monitoring their well-being. Evaluation results demonstrated few overall psychosocial and health effects for guardians or children from home visiting and most observed effects were at the child-level.

Table 5 presents home-visiting exposure and frequency data among guardians for the three programs employing this strategy. Among those who received a home visit across the programs, about 58% of the beneficiaries from Allamano and only less than a half and a third of beneficiaries from CRS and TSA, respectively, had received a visit within the year preceding the survey. It was expected across all programs that beneficiaries would have a volunteer who visited their home to re-assess their needs, provide services, or monitor their well-being continuously, although it is clear that this was not the case. Further, among those who reported having a home visitor, the frequency of visits they received was lower than expected.

Each of the programs had set expectations that volunteers should visit their assigned household at least monthly or more often, as needed. However, fewer than half of the sample from

Table 5. Prevalence and Frequency of Home Visiting across the Three Programs (Percent of N)

	Catholic Relief Services	Allamano	The Salvation Army
Prevalence of Home Visiting	(N = 401)	(N = 414)	(N = 486)
Caregiver beneficiaries in intervention site only reporting a home visitor	43.1	57.5	27.2
Frequency of Visits*	(N = 218)	(N = 319)	(N = 132)
Once a week or more	11.1	24.5	9.1
Once every two weeks	13.8	17.2	5.3
Once a month	18.8	24.8	16.7
Once every two months	1.4	6.0	4.5
A few times a year or less	55.1	27.5	64.4

* N is based on both the intervention and comparison group who reported a home visitor.

CRS and TSA reported receiving a visit at least once a month (44% and 31% respectively) while the majority from both programs indicated they were visited only a few times a year (55% and 64% respectively). Nonetheless, a higher number of Allamano beneficiaries reported receiving monthly or more frequent visits (nearly 67%) and only about 28% indicated that they had been visited only a few times a year.

Because of the large number of regression models that were estimated, only a summary of results for the intervention effects are presented in this report. Table 6 illustrates the association between program exposure and the psychosocial and health outcomes of children and guardians across the three programs and their statistical significance. Further details on the impact of home visiting for each project can be found in their respective individual project evaluation reports.^{1-3, 6}

Overall, among the many possible psychosocial and health outcomes for children and guardians, home visiting was associated with no more than three indicators for each program. It is further evident that the effects of home visiting on child psychosocial outcomes varied by program. Specifically, only home visiting under the Allamano program was associated with higher levels of child-reported adult support, and only TSA home visiting was associated with higher levels of child self-esteem. On the other hand, neither TSA nor Allamano home-visiting initiatives were associated with better child behaviors, whereas fewer behavioral problems were found among CRS beneficiaries. Home visiting was also associated with lower isolation among children across two programs — CRS and Allamano. In regards to health outcomes, only Allamano was associated with better reported health status for children,

Table 6. Effects of Home Visiting on Child and Caregiver Outcomes, by Program

	Catholic Relief Services (N = 401)	Allamano (N = 414)	The Salvation Army (N = 486)
Child Outcomes			
Psychosocial			
Personal self-esteem	NS	NS	+
Difficult behaviors	+	-NA-	-NA-
Pro-social behaviors	NS	NS	NS
Emotional symptoms	-NA-	NS	NS
Social isolation	+	+	NS
Adult support	NS	+	NS
Health			
Reported health status	NS	+	NS
Guardian Outcomes			
Psychosocial			
Family functioning	+	NS	NS
Negative feelings	NS	NS	NS
Positive feelings	NS	-	NS
Marginalization			
Health			
Reported health status	NS	NS	NS

Legend:

- + = a better outcome was significantly associated with program exposure at p<0.05 in multivariate analyses.
- = a worse outcome was significantly associated to program exposure at p<0.05 in multivariate analysis.
- NS = the outcome was not significantly associated with program exposure at p< 0.05 in multivariate analyses.
- NA- = outcome not assessed in this study, often due to unacceptable scale reliability (alpha) in this setting.

but none of these programs were associated with improvements in guardians' health status.

Overall, home visiting appears to have done little to improve guardian's psychosocial well-being and, in some instances, had negative effects. For most of the outcomes under study, there were limited measurable effects of the programs. For example, at the bivariate level, guardians in the CRS and TSA programs with a home visitor had lower marginalization feelings compared to guardians without such a visit (data not shown). However, after controlling for other factors, none of these results were significant. Further, in the Allamano program, caregivers with a home visitor had significantly higher marginalization feelings than those not visited, even after controlling for confounders. Also, none of the programs were associated with indicators reflecting an improved emotional state of guardians. The only positive psychosocial impact that emerged for guardians was that participants of the CRS program reported better family functioning.

Comparisons across the three home visiting programs are difficult to establish as each program is unique in terms of the services they deliver and the ways in which they deliver them. The expectations and skills of program volunteers also vary across the study sites. Thus, in interpreting the evaluation results, it is important to consider the duration of exposure, workloads, training curricula, and resources of volunteers within these programs. Each of these factors may explain both the differing effects across programs as well as the scarcity of effects found.

The case studies revealed that the volunteer-household ratio varied by program.^{7,9} For instance, each CRS and TSA volunteer was typically assigned up to 10 households, whereas an Allamano volunteer may have as many as 15 households. It is interesting that Allamano participants reported more frequent visits, as these volunteers had a higher caseload. Perhaps the programs focus on visiting PLWHA may be a factor, as volunteers' perceptions of participants

dire health needs could influence visit frequency. Other factors, such as training, resources, and support may also be important.

The programs were also compared by their compensation to volunteers for their work, which may be an important factor influencing motivation and frequency of visit. The results revealed that while both CRS and Allamano volunteers received transport reimbursements and other incentives,^{7,9} TSA volunteers did not receive any compensation for their work. In addition, the large caseloads across each program may account for why many households that were expected to have a volunteer reported never having been visited. For instance, CRS volunteers noted feeling overwhelmed by their responsibilities and cited a need for more incentives and support to continue their work as home visitors.⁹ Thus, perhaps volunteers self-selectively limited their client load.

Services provided to clients during home visits also varied considerably. For the two programs in Tanzania, adult respondents were asked what type of services volunteers provided when they visited (Table 7). For both programs, only about 40% of guardians in either program reported that they had received counseling from the volunteer home visitor. Further, guardians reported that counseling was more commonly provided to children in their home than themselves. The lower than expected psychosocial services offered and the emphasis on children versus guardians may explain both the lack of psychosocial impacts overall as well as why some psychosocial effects were more evident among children.

In addition, the information in Table 7 highlights the broader resources of Allamano volunteers relative to TSA volunteers. Participants of the Allamano program reported having received a greater amount of tangible resources than TSA, such as school materials and food. Further, linkages with broader support networks appear less with TSA, as only about 8% of their beneficiaries reported that TSA provided referrals compared to 18% of Allamano participants. As such, Allamano

Table 7. Services Provided by Volunteer Home Visitors in Tanzania when they Visit (Percent of N)

	Allamano (N = 319)	The Salvation Army (N = 132)
Counselling adults	40.2	40.2
Counselling children	56.4	48.8
Food*	71.8	55.3
Clothing*	48.0	55.3
School materials	85.6	59.1
School fees	23.8	-
Legal support	8.2	-
Nursing care	46.1	-
Medications	59.6	-
Information on hygiene	50.8	-
Referrals	18.8	7.5

* For TSA, food and/or clothing was asked as one question, so not possible to discern separate percentages.

- = a worse outcome was significantly associated to program exposure at $p < 0.05$ in multivariate analysis.

volunteers appear to have better linkages to support identified child and household needs.

Allamano volunteers also provided linkage to a range of medical and health services not offered by TSA. Allamano home visiting clients had received nursing care, medications, and information on hygiene. The program's emphasis on supporting people living with HIV and AIDS (PLWHA), and the home-based care kits and the related comprehensive training of volunteers, may explain why only this program was associated with better health outcomes.

The services participants received during home visits could also be viewed as a proxy for the skills and training of volunteers. Indeed, each initiative applied different training curriculums as reflected in the dissimilar duration of trainings provided to volunteers. For instance, volunteers for CRS were trained for two days, whereas Allamano volunteers received 21 days of training, including a strong home-based care component to support PLWHA. Further, the case studies made evident that program volunteers desired additional skills

and support. For instance, Allamano volunteers indicated a lack of training to prepare them to address child and adolescent psychosocial needs, especially those of OVC. They reported feeling ill-equipped to address child and adolescent behavioral reactions to trauma and loss (i.e., withdrawn or externalizing/acting out).⁷ Volunteers from TSA also reported insufficient knowledge concerning child health and nutrition and frustration with the inability to attend to these needs.⁸

In conclusion, few overall psychosocial and health effects for guardians or children from home visiting were found. Where effects were observed, most were for child psychosocial outcomes and the affected outcomes differed by program. The varied effects of home visiting on beneficiaries across programs are likely due to the implementation differences across these programs. As each program differed in its training of volunteers and the kinds of support volunteers provided to households, it is not surprising that many children and caregivers needs were not met in some contexts compared to others. Home visitors may further place greater emphasis on addressing child needs rather than caregiver needs. Lastly, the overall dearth of effects found may be explained by volunteers' high caseloads, knowledge gaps, and the sometimes limited resources and support they had available to address client needs.

Kids' Clubs for Children

Kids' clubs were another key strategy implemented by the two programs evaluated in Tanzania (TSA and Allamano). The kids' clubs provided children with recreational opportunities and served as a forum to deliver psychosocial support and other key information and skills to enable them to make better and healthy decisions about their lives.

Table 8 displays the extent of exposure among the intervention groups of TSA and Allamano. While TSA participants were drawn from kids' club beneficiary lists, only 27% of these children reported ever having attending the program. Furthermore, only 44% of the Allamano

intervention group reported having ever attended a kids' club. For both programs, children were expected to participate in a kids' club meeting at least once a month (twice a month for TSA and once a month for Allamano children). Among those who had participated, the majority had attended a kids' club meeting once a month or more frequent for both TSA and Allamano programs (67% and 57%, respectively). Most participants had attended for at least one year, whereas slightly more than one-third had attended for less than one year (38% and 37%, respectively). Overall, the profile of attendance across the two programs was fairly similar but a higher number of Allamano beneficiaries participated in the intervention.

Children who participated in kids' club were expected to have better psychosocial outcomes. This study concentrated on measures reflecting children's self-esteem, social skills, emotional

well-being, and their support networks. Table 9 illustrates which psychosocial outcomes were associated with kids' club program exposure in multivariate analyses for the two programs. Further details on these findings can be found in the respective individual reports.^{1,3}

Table 9. Effects of Kids' Club Participation by Program on Children's Psychosocial Outcomes

	Allamano (N = 552)	The Salvation Army (N = 564)
Outcomes		
Global self-esteem	NS	NS
Emotional symptoms	+	NS
Pro-social behavior	+	NS
Adult support	+	NS
Social isolation	NS	NS

Legend:

+ indicates a better outcome was significantly associated with program exposure at $p < 0.05$ in multivariate analyses.

NS indicates the outcome was not significantly associated with program exposure at $p < 0.05$ in multivariate analyses.

Table 8. Kids' Club Exposure and Intensity across Two Programs (Percent of N)

	Allamano (N = 552)	The Salvation Army (N = 564)
Attended a Kids' Club Meeting		
Children at intervention site who reported having attended at least one kids' club meeting in community or school	44.2	27.4
Extent of Exposure	(N = 301)*	(N = 147)*
Attended club at least once a month	56.7	67.3
Attended every other month or less frequently	43.3	32.7
First time the child started attending was two or more years ago (2005 or before)	13.0	7.5
First time the child started attending was one year ago (2006)	49.5	55.8
First time the child started attending was less than one year ago (2007)	37.6	36.7

* N is based on both the intervention group and any respondents within the comparison group who reported a home visitor.

Participation in the Allamano kids' clubs was associated with significantly fewer emotional problems, higher levels of pro-social behavior, and increased adult support. However, there were no effects of participation in the Allamano kids' clubs on the outcomes of self-esteem or social isolation. For TSA, no significant differences were found between kids' clubs participants and non-participants on any of the psychosocial outcomes examined. Analyses also assessed whether impacts emerged or varied depending on the length and frequency of kids' club exposure and no such effects became apparent for either program.

The varying curriculums of the two kids' clubs programs may explain the positive differences seen among Allamano participants and the dearth of effects for the TSA program. Child survey participants were asked an open-ended question

as to the specific activities they had engaged in and what they had learned at kids' clubs, and these results are presented in Table 10. These findings suggest that the two kids' club programs covered very different issues; the Allamano initiative appeared to include a more comprehensive range of issues. Results show that most of the children who attended a kids' club reported participating in activities such as games, songs, and dance (95% for TSA and 87% for those in Allamano). Another key observation is that a greater number of children in the Allamano program relative to the TSA program had learned about health, hygiene, chores at home, and good behavior. However, some children participating in the TSA kids' clubs reported learning about stigma and discrimination, psychosocial issues, and OVC needs; while the children in the Allamano group did not report these activities in their program. Considering that psychosocial outcomes were evident exclusively among Allamano participants, it is interesting that only TSA participants reported learning about psychosocial topics specifically. However, it may be that psychosocial issues were more indirectly addressed as part of Allamano's broader activities and through the enhanced capabilities of their

kids' club implementers. Allamano implementers were further able to refer children to program staff counselors at the center, whereas TSA lacked this alternative support mechanism.

Another key difference between the two programs is that TSA kids' clubs were implemented solely by volunteers, whereas an Allamano OVC focal staff person attended each of the kids' club meetings their organization sponsored.⁷ Moreover, findings from the TSA case study highlight the lack of a structured and uniform curriculum across kids' club sites.⁸ TSA volunteers were encouraged to form their own agendas and, as such, the activities varied widely across sites. In many communities, kids' club activities may have simply entailed organized recreational events. Some volunteers did utilize club meetings to teach children life skills, handicrafts, and local trades and divided children into small groups to facilitate discussion and collaborative problem-solving. However, much of this was a result of their own initiative, as volunteers reported receiving limited training and support for program implementation. At the time of information-gathering, not all kids' club implementers had received the kit from TSA, which includes resources to enhance activities such as equipment for basic sports and recreation. Regional volunteer trainings put on by TSA addressed kids' clubs to some extent, but only a few volunteers from each community were selected to attend. The training was broad and covered foundational topics such as psychosocial support, community counseling, Journey of Life, OVC needs, and the importance of volunteerism. The case study further revealed that training may have been made available several months after volunteers had begun to implement kids' clubs. Overall, TSA kids' club implementation was often based on the skills, ideas, and equipment already possessed by the volunteers, which was variable and sometimes limited. On the other hand, Allamano had regular on-site supervision and support from the OVC focal staff person and kids' club activities, followed a more standardized

Table 10. Kids' Club Training and Activities, by Program (Percent of N)

	Allamano (N = 301)	The Salvation Army (N = 147)
Child-Reported Activities and Information Learned during Kids' Clubs Meetings		
Life skills	39.5	19.0
Games, songs, dances	87.0	94.6
Health/nutrition	61.1	27.2
HIV prevention	40.2	21.0
Body hygiene	76.4	46.3
Chores at home	79.1	-
Good behavior	82.7	-
Stigma and discrimination	-	12.9
Psychosocial/community counseling	-	35.4
Discuss OVC needs	-	42.9

curriculum across sites. For instance, Allamano's agenda provided activities for different age groups. In addition to recreational opportunities, children aged 6 to 12 years were taught life skills such as cooking, washing clothes, and home care. Activities for children aged over 12 years also included HIV and AIDS education, safe sex, and health and nutrition information. The positive effects found among Allamano kids' club participants is likely explained by the program's inclusion of ongoing guidance and their structured and more comprehensive curriculum.

Initiatives to Support Guardians

This investigation explored the impact of two initiatives designed to build the capacity of guardians: support groups and income generating activities. OVC guardians participated in support groups in both the IAP and CRS programs in Kenya. Income-generating activities were offered to guardians as part of the CRS program in Kenya and Allamano in Tanzania.

Several effects emerged from participation in support groups. Guardians engaged in IAP-sponsored support groups had lower negative feelings than non-participants.⁶ While this effect was not found among those engaged in CRS-sponsored support groups, this initiative was instead associated with better family functioning, lower perceived discrimination and less marginalization.² Results from the CRS study also indicate how targeting efforts at guardians can translate into positive outcomes for their children, as guardian support group participation was associated with more pro-social behaviors and less child-reported household abuse. This evaluation further highlighted the additive effects of guardian's exposure to multiple interventions. Guardians that participated in support groups and who also had a home visitor reported higher family functioning and fewer child behavioral problems than guardians participating in either one of these interventions alone.²

The impact of two interventions that provide OVC guardians with opportunities to supplement

family income were also examined.⁶ CRS in Kenya gave training and support in the establishment of savings and internal lending committees (SILCs) that offered group-generated funds loaned to members through a monitored savings and credit system. Allamano in Tanzania provided training in bio-intensive agriculture and participants received capital inputs such as wheelbarrows, spades, and other equipment. Both initiatives were associated with reduced food insecurity among participants. This is particularly important considering the high levels of food insecurity in the surveyed households. As previously reported in Table 4, 86% and 44% of the CRS and Allamano study participants, respectively, were living in households with severe food insecurity. In addition, cost effectiveness analysis revealed that these income-generating activities interventions were found to reduce food security at a low cost per beneficiary. The analyses demonstrated that the SILC program could achieve a 10% reduction in food security at a cost of \$1.61 per beneficiary and training in bio-intensive gardening under Allamano was associated with a similar sized reduction for only \$9.17 per beneficiary. These initiatives provided cost-effective and viable economic opportunities to guardians, inevitably building their capacity to care for themselves and their children.⁶

Strategies Targeting the General Community

Several programs included initiatives targeting the general community within which they work. In particular, CRS and IAP in Kenya had school-based HIV prevention initiatives. TSA kids' clubs were also open to all community children and included an HIV prevention component. IAP conducted community education and sensitization activities designed to provide adult community members with information concerning child protection as well as enhance community acceptance and support of OVC and PLWHA.

Improvements in HIV knowledge from school-based HIV education were found for both CRS and IAP and were also reported to be very cost-effective.⁶ For instance, CRS' school-based HIV

prevention activities increased HIV knowledge at less than ten cents per beneficiary. Further, children participating in 'TSA kids' clubs were also more likely to have heard of HIV and have higher levels of HIV prevention knowledge.³ IAP's school-based initiative was also associated with higher levels of HIV knowledge and additional results from this evaluation provide considerations for improving such programs. In particular, very few youth mentioned sexually-related protective behaviors, such as limiting the number of sex partners or using condoms, and the program had no effect on the prevalence of children's mistaken beliefs concerning HIV prevention.⁵ Findings point to the value of expanding the HIV education curriculum to address the spectrum of prevention methods, possible misconceptions, as well as issues pertaining to sexual negotiation and other life skills.

IAP's community education and sensitization efforts demonstrated some favorable child protection outcomes for participants. Among the full community-based sample, children of meeting attendees were more likely to have identity documents and reported lower abuse than children whose guardians did not attend the meetings. The community-targeted efforts reached OVC directly as well. Nearly one quarter of various OVC guardians had attended and some positive impacts of participation emerged. Children living in a household with an ill adult with a guardian who attended were also more likely to have identity documents and reported marginally significant lower levels of abuse. This is notable given that, as a whole, children living with an ill adult were less likely to possess identity documents and had higher levels of child abuse than the rest of the children.⁴

IAP's community sensitization activities showed only marginal effects on the stigma levels of participants. However, this study illustrated the important role that community stigma can have on the well-being of OVC. Specifically, multi-level analyses demonstrated that children living

in communities with higher levels of stigma had poorer outcomes, including more social isolation and less family support.⁴ Results point to the need for more intensive strategies for reducing stigma.

Direct Material Support

Two of the programs included provision of direct material support, including school supplies, food to the household, and free health services for children and guardians. Table 11 provides an overview of services beneficiaries reported receiving from the program within the year preceding the survey. The vast majority of Allamano beneficiaries and less than half of CRS beneficiaries had received school supplies. However, reverse findings are present in terms of food provision, as most CRS households had received food in the last year relative to less than half of Allamano households. Health services had been provided to one-third of CRS child beneficiaries and included one or more of the following services: vitamin A, bilharzia treatment, or de-worming. For Allamano, health services for children and guardians included having visited the Allamano health clinic for free services. Nearly 44% of Allamano child beneficiaries and 50% of guardian beneficiaries reported having visited the clinic. Health services reported by 29% of guardians under CRS reflected whether the guardian had received a referral form enabling them to access free services from a local clinic in

Table 11. Material Support Received by Intervention Group Beneficiaries (Percent of N)

	CRS (N = 600)	Allamano (N = 550)
Services Received by Program Beneficiaries		
Child received school supplies	43.8	88.6
Food provided to the household*	92.3	38.9
Child received health services	35.3	43.6
Guardian received health services*	28.8	49.3

* For these indicators, N=396 for CRS and N=418 for Allamano, as they were reported by guardians rather than children.

partnership with CRS. To the extent possible, the evaluations explored the impact of these direct services provided by CRS and Allamano.

The provision of school supplies or school fees had no effect on children's educational outcomes such as enrollment, appropriate age for grade, or regular attendance.⁶ However, one study made evident the positive influence of children's possession of basic school supplies on children's psychosocial outcomes.¹ For the Allamano sample, an index was generated to examine whether children had five essential school supplies: a uniform, pen, exercise book, chair to sit on at school, and a textbook. The results showed a positive association between possessing a higher number of these items and several child psychosocial outcomes, such as better child self-esteem and lower perceived discrimination concerning orphans and families affected by HIV and AIDS. Therefore, findings illustrate that distribution of school materials may have impacts beyond educational outcomes and indirectly serve to enhance children's psychosocial well-being.

While almost all beneficiaries within the CRS program reported having received food at least once in the past year, effects of food support were evident among only the Allamano participants. Food support was associated with a sizable reduction in food insecurity of 44% for Allamano, but had no effect on food insecurity for CRS beneficiaries.⁶ This is likely due to the fact that, while Allamano provided food to a smaller number of beneficiaries, food was provided consistently to these select recipients. The food support CRS provided, albeit to a larger number of beneficiaries, was provided only sporadically.

It was difficult to evaluate the effects of health services provided by CRS and Allamano with a post-test study design because these services were provided based on need. For example, it is inappropriate to assess the health outcomes of the 35% of children in the CRS intervention group who received one or more healthcare services such as Vitamin A and de-worming relative to other

children, as it is unknown whether the other children needed such services. As reasonable equivalence of the exposed and unexposed groups could not be assumed, this study did not examine the impact of the direct provision of specific health services. However, the evaluation of CRS and Allamano revealed important findings concerning the programs' attempts to increase beneficiaries' access to health services.

The Allamano program included a health center open to all community members. Guardians within the Allamano sample who had heard of the Allamano health center reported significantly better health than those who had not heard of the health center. Further, households with a home visitor reported being more likely to have sought medical services at the center for both themselves and their children than households without a home visitor.¹ These findings suggest that home visitors helped to encourage better care-seeking behaviors and accentuate the value of establishing a referral system between program volunteers and local health care centers.

On the other hand, the CRS evaluation revealed that beneficiaries may not always capitalize on the free health services available to them.² CRS helped to increase access to health services via providing guardians with health-care referral forms to tend to their own health needs and those of the children in their homes. The referral forms could be used to access free health care and medicine from identified clinics in partnership with CRS. However, findings indicated that consistent uptake of these free health services was not very high. Among guardians who received a health referral for themselves, almost one-third reported never having used that referral. Further, an even higher proportion (39%) of guardians indicated they never used the referral provided for the child under their care. Explanations from respondents pointed to the need for programs to address health care barriers that went beyond costs. Specifically, reasons for not using health services included issues pertaining to the quality

of care such as the attitudes and treatment of clients by health care providers as well as the need to alleviate transportation expenses and empower guardians to communicate effectively with health care staff.

Unintended Consequences

In spite of positive effects found across each of the evaluations, some important potential unintended consequences also became apparent. In particular, several results suggest that service delivery to OVC and their households may indirectly induce household tension, as well as jealousy, resentment, and negative attitudes towards HIV-affected families and OVC from the surrounding community. While findings in this regard are highlighted, it is important to note that whether program participation actually “caused” these negative outcomes cannot be definitively concluded due to the post-test design and other study limitations as discussed earlier. Nonetheless, these findings offer important reflection for programmers in both understanding the full range of potential intervention effects as well as consideration of preemptive mechanisms for avoiding unintended consequences.

In the TSA program evaluation, kids’ club participation was found to be associated with some negative outcomes. Caregivers of children who attended a TSA kids’ club meeting had less positive feelings towards the child under their care compared to those caregivers whose children had never attended such a meeting.³ This finding suggests that household tensions may have resulted from the child’s participation, perhaps taking them away from helping with chores at home. As such, further efforts may be needed by program staff to engage caregivers in decision-making processes concerning their children’s time.

There is also evidence that other community members may have more negative attitudes including stigma, discrimination, and resentments towards HIV-affected families, including children that are participating in these initiatives. The

Allamano study revealed that those caregivers participating in the program and were visited by an Allamano volunteer, felt more strongly that the community rejected HIV-affected families and were jealous of the services provided to OVC and their families. In addition, Allamano kids’ club participants were more likely to report that the community was jealous of the services given to HIV-affected families and orphans than those who did not participate.¹ As the Allamano’s care and support activities are principally home-based and targeted towards PLWHA and their children, other community members may observe the visits and envy those receiving services. Or perhaps the HIV status of participants is indirectly revealed from these home visits and result in community members discriminating against them.

Indeed, a noticeable fraction of the sample across each study setting reported that there was community jealousy of services provided to OVC and their families. As seen in Figure 4, about half of the children in the CRS and Allamano samples felt there was jealousy. Perceptions of community jealousy were even higher among guardians in these samples. In poor communities, many children and families may be in need of services, but the differential aid to OVC may cause resentment among their neighbors and peers. These results bear credence to both the importance of engaging the community in decisions regarding who will receive services, as well as programmatic efforts to sensitize the community on the needs of OVC and those of HIV-affected families.

Correspondingly, these studies provide insight on the expectations of community members concerning who is responsible for the support of OVC. Figure 5 includes responses from both beneficiaries and community-based samples within Tanzania and Kenya. Most commonly, the extended family was considered to be principally responsible for the care of orphans. Though, in comparing beneficiary versus community sample responses, it is notable that a larger number of beneficiaries in both countries perceived it as the

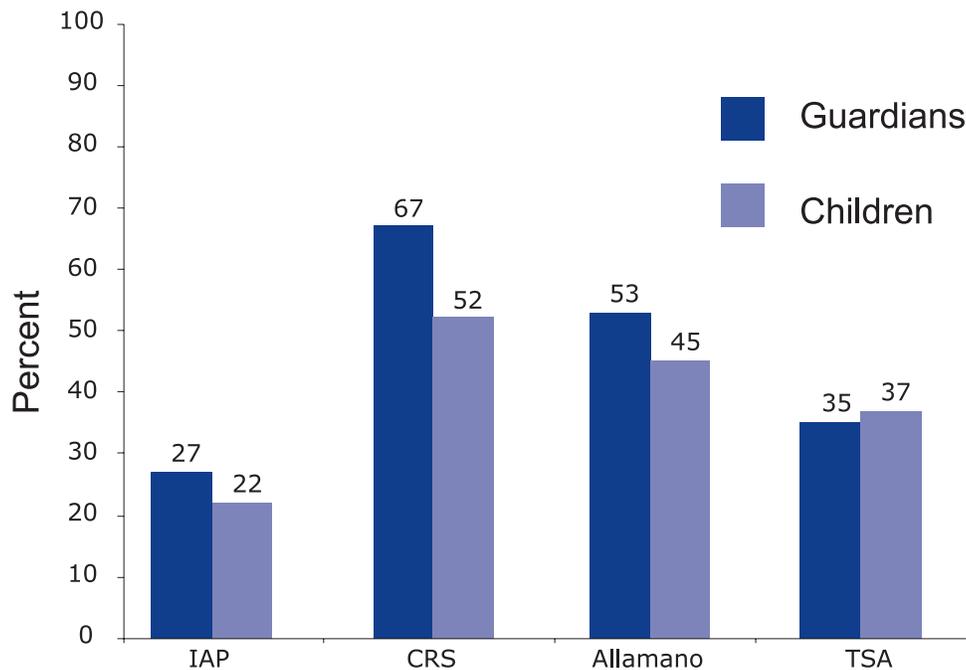


Figure 4. Percent of respondents across the four study sites that agreed that people in the community are jealous of the services provided to orphans and families affected by HIV and AIDS.

responsibility of nongovernmental organizations (NGOs) to care for orphans relative to the community samples. This pattern is particularly stark in examining data from Kenya, contrasting results from the CRS OVC beneficiary sample and IAP community-based sample. About 40% of CRS beneficiaries felt it was the responsibility of NGOs to care for orphans, compared to only 24% of the more community-representative sample within the IAP study. Perhaps being a beneficiary contributes to increased reliance upon and expectations of support from NGOs; however, this suggestion is merely speculation in light of the study limitations and the fact that these samples were drawn from different communities. Nonetheless, these results bear consideration in preventing dependence of beneficiaries by setting realistic expectations, building their capacity, and expanding their alternative support networks.

Further, the fact that the community was the least frequently mentioned source of support for orphan care across all settings has implications for the programmatic emphasis on community-driven support to OVC. In Kenya, more participants saw it as the responsibility of government than did the general community; and across all sites, less than 10% felt it was the community's responsibility. Efforts to engage the community in the care of orphans should consider that community members may not perceive it as their principal responsibility to care for children outside their family. This is not to suggest that community members do not care for OVC, but only that they may not hold a high sense of personal responsibility to care for unrelated children and, as such, encouraging them to do so may require remuneration and other incentives.

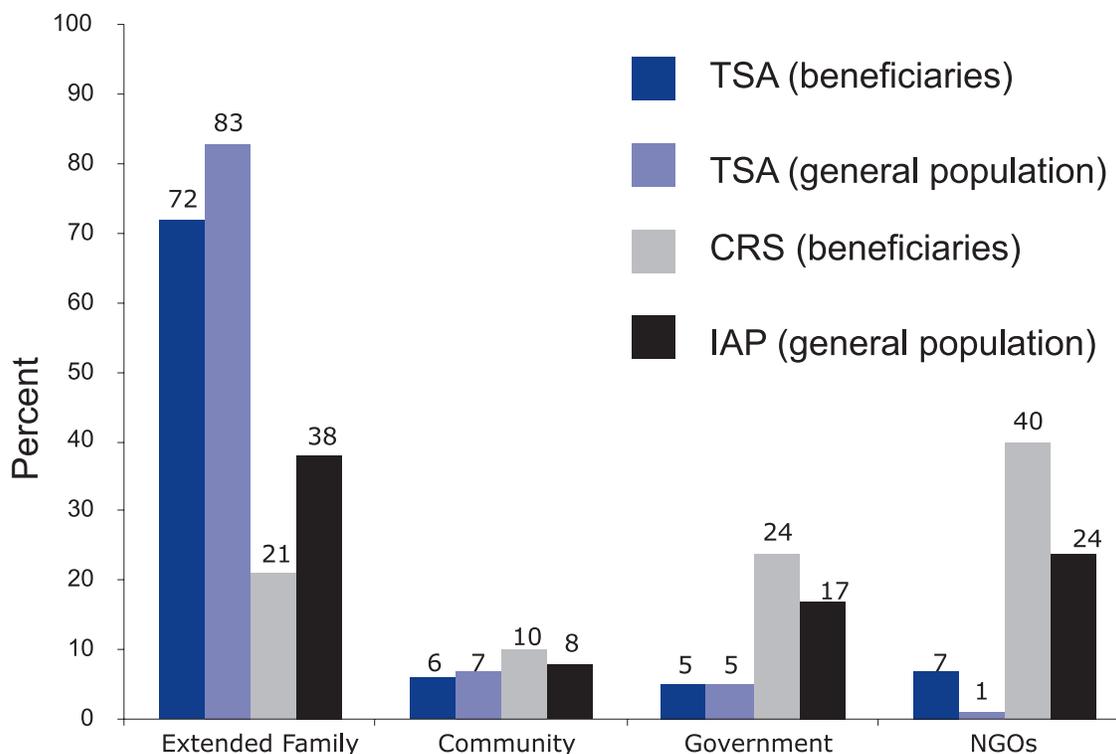


Figure 5. Respondent reports of who was principally responsible for the care of orphans among community-based samples and beneficiaries in Kenya and Tanzania.

Emerging Evaluation Issues

This section goes beyond outcome results to present other issues that emerged from the evaluation process. Discussion includes guiding factors for the methodological approach applied in these studies and the challenges and opportunities encountered in conducting this work. These lessons learned have relevance for both programmers and researchers as they present considerations for the improvement of program targeting, monitoring, and future evaluations.

Age range of beneficiaries — This study concentrated on ascertaining program impact only among children age 8-14 and their guardians. A decision was made to focus on children within this age range based on consultation with project stakeholders and consideration of other factors. First, the researchers wanted child participation, and the lower cognitive capacity and attention-span of children below age 8 makes it difficult to include them in surveys. Children beyond age 14 were

not included because the majority of beneficiaries of the programs evaluated did not exceed this age. For instance, case studies reported that about 75% of CRS beneficiaries in Kilifi District were under age 15.⁹ In the Mbeya Region, the majority of TSA kids' club participants were between 8 and 14 years old.⁸ This same trend was observed across the other program sites as well. As such, while the evaluation was unable to ascertain impact of these interventions beyond children of this age group, it is also apparent that addressing the needs of adolescent OVC were not a priority in these programs.

Accuracy of beneficiary lists — The task of locating and interviewing the intended study participants was a major challenge for the programs evaluated. Three of these programs (Allamano, TSA, and CRS) relied on existing program beneficiary lists obtained from the program staff. The lists of beneficiaries were comprised of children who had been identified as most in need compared to others in the community by MVC

committees in Tanzania and through a similar village committee set-up by CRS in Kenya. Some of these children had received services and others were slated to receive services, according to these programs' scale-up plans. The lists typically contained the full name of the child and guardian, age of the child, their village/ward/community of residence, and larger geographical region such as sub-location or district. The research field team tried to locate the households on the beneficiary lists with assistance from local authorities, program staff and volunteers, but several problems were encountered with the accuracy of these lists. The problems included the inability to locate some children listed, discovering that the ages of the children were not always correct, and duplication of children on the list.

A principal challenge was that a number of beneficiaries could not be located. This was a particular problem in Kenya, as 20% of CRS children listed could not be located in spite of guidance and follow-up support from local community members and project staff. The inability to locate participants was higher among households with a history with the program (intervention group) than the newly-identified children (comparison group). Specifically, 29% of households in the intervention group could not be located relative to 9% in the comparison group.² In many cases, local community members and program volunteers were unaware of the existence of these children and program staff were also unsure of their whereabouts. Similar patterns were observed for the programs in Tanzania, although not to as great an extent as in Kenya.

Other problems with the accuracy of beneficiary lists were also revealed. In particular, the ages of the children were not always correct, one of the selection criteria for child participation in the study. When a household was located and the interviewer verified the age of the child on the list with the guardian and child, some children were found not to be within the age range (e.g., some were 17 years but the listed ages were 14 years).

To a lesser degree, there was also the problem of some identified households listed twice.

There may be several reasons for the inaccuracy of the beneficiary lists. It may be due to the challenge of continually tracking large numbers of households. For instance, over 20,000 children are supported by CRS in Kilifi District and some were identified as long ago as four years prior to the study. Indeed, findings from the CRS case study described program staff's challenges in this regard and their desire for a user-friendly method to enroll and monitor OVC supported by the project.⁹ It is also a challenge for programmers to verify names and ages, considering many OVC lack identification documents (Figure 6). The migration of families and relocation of children may also contribute to the problem of losing beneficiaries. While this study can only speculate on the reasons, fieldwork experiences suggested that the lists held by the organization were not an entirely accurate portrayal of who was currently being served by the program.

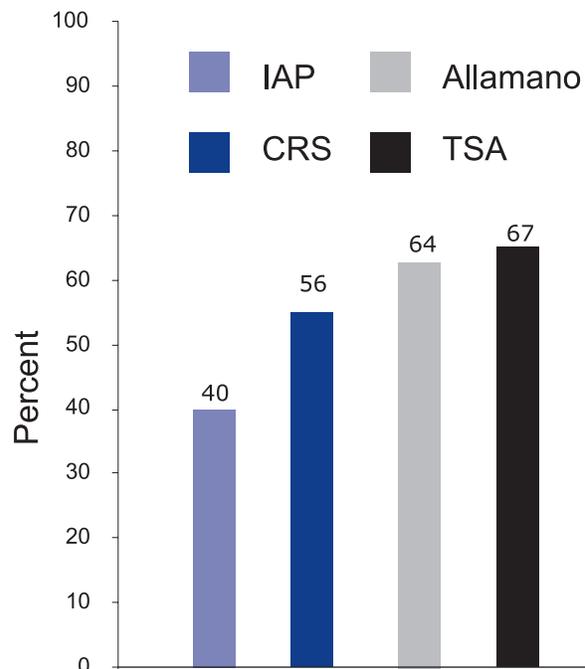


Figure 6. Percentage of OVC who lacked identity documents.*

* All percentages refer to the program's beneficiary lists sampled, with the exception of IAP, which is limited to maternal orphans from the community-based sample.

Low program exposure among beneficiaries —

These evaluations focused on specific intervention strategies of each program. However, each of the programs included in this evaluation offered very multi-faceted intervention components that extended beyond the scope of this evaluation. Other intervention components were often not assessed because the number in the sample who reported participating in these interventions was too small to make definitive conclusions. For instance, only 35 of the more than 2,400 guardians sampled as part of the IAP study reported having a home visitor, although this was a principal aspect of the IAP initiative. Low exposure in this sample may be expected considering it was a community, rather than beneficiary-based, sample. However, even in studies relying on beneficiary lists, there was limited exposure to some interventions offered by the programs. For instance, only 4% of CRS child beneficiaries reported attending a meeting discussing child rights. For these reasons, the effects of all intervention strategies employed by the programs, as well as the combination of various approaches, are unknown.

Furthermore, among the key interventions examined in this study, only a small number of beneficiaries confirmed that they received expected services. For example, while the TSA participants were randomly selected from the program's kids' club registry obtained from TSA staff, nearly 57% of the children selected to participate in the survey reported they had never heard of the kids' club program.³ Findings mentioned previously further reiterate this issue as, for instance, only 49%, 29%, and 57% of the intervention group of CRS, TSA, and Allamano, respectively, reported having a home visitor. These findings were unexpected as programmers assumed that most, if not all, would report receiving this core service. It is possible that some participants may have chosen not to participate in available services or, unknown to programmers, were not receiving expected results. Regardless, these results give pause to the authenticity of the comprehensive coverage provided by OVC programs.

Reliance on retrospective data —

The methods section of this report summarizes the limitations of the post-test study design applied within these evaluations. This section elaborates on these weaknesses, but also addresses the strengths of this approach and includes a discussion of alternative designs considered. A key strength of this study design was that it yielded immediate data to help inform programmatic and policy decisions. This study's use of a comparison group that was set to receive services following data collection also circumvents any potential ethical issues pertaining to the denial of services to a subset of OVC. On the other hand, the results of this design must be interpreted cautiously. This design allows for only findings concerning associations between program exposure and outcomes, rather than more definitive conclusions that a program "caused" such outcomes. It is not possible to demonstrate causality for any differences found between those exposed and not exposed to the intervention because there are no measures of change from a baseline.

Another related problem with this design is that the two groups — those exposed and unexposed to an intervention — might not be necessarily equivalent. While analyses controlled for possible demographic differences between the two groups, it is not possible to know definitively if the associations found are due to the services received or preexisting unknown differences between these groups. This problem exists in any post-test-only study design, as there is a lack of pre-test data to determine and control for equivalence. Further, in this case, the unexposed group is potentially comprised of some individuals who chose not to participate in the intervention. Therefore, differences may exist between the individuals who self-selected to participate and those who choose not to participate. For instance, the individuals who engaged in available services were perhaps more inclined to positive outcomes (e.g., more interested in promoting harmonious family interactions and already more caring towards the children in their household). Alternatively, those

electing such services may have had an increased need for these interventions and were therefore initially worse-off on the outcomes of interest. While this limitation is worth considering, it should be noted that the bulk of unexposed individuals were never offered the intervention (the unexposed group was principally comprised of “to-be-served” households). Nonetheless, the possibility of self-selection bias makes it difficult to know if effects found are due to the intervention or other factors inherent to participants and further limits the generalizability of these results. Overall, attribution of program impact is difficult to conclude in evaluations relying on retrospective data.

In developing the methodology for these evaluations, several other more rigorous designs were considered. For instance, there was discussion of the possibility of randomized controlled trials (RCTs), in which individuals are randomly assigned to intervention and comparison groups. RCTs are often considered to be the “gold standard” because they minimize the risk of selection bias (the bias resulting when differences in outcomes reflect who was in intervention and comparison groups, rather than the effects of the intervention itself). With RCTs, researchers can more confidently assert that samples of exposed and unexposed individuals are statistically equivalent in all aspects related to the outcome under study or, at worst, that any differences that exist are due to random chance. However, the use of RCTs in the evaluation of OVC programs is often not feasible, ethical, or appropriate. Interventions that provide broad support to communities (through school-based HIV prevention initiatives, for example) are difficult to restrict to only a subset of community members. Other interventions, such as the provision of antiretroviral therapy and food, have proven efficacy or are provided based on dire need and cannot ethically be withheld from potential beneficiaries.

A longitudinal quasi-experimental design is another alternative that would provide more

concrete data concerning effectiveness. However, the same concern regarding the denial of resources to an identified group of children makes this design both a challenge and, in some instances, not ethical or practical. Further, a panel study in which the same program participants are followed over time would have offered more substantive evidence of program impact and does not pose the same ethical dilemmas regarding denial of services to identified children (however, there are limitations with the lack of a comparison group; for instance, it is unknown what would have happened in the absence of the intervention). A panel study was not possible in these evaluations due to limited time and resources allocated to this evaluation activity. For these reasons, this evaluation relied on a less robust study design (post-test only) with comparison groups, which can be viewed as providing suggestive but inconclusive evidence of program effectiveness. It is important to consider that the application of a more rigorous design may have resulted in different results concerning program impact.

Uniformity and selection of survey measures across program sites

— The surveys applied in this study were uniform across the four programs, with exception of the intervention exposure modules. This approach has the strength of allowing for comparisons across sites and even countries. Further, the surveys included a range of indicators (see Table 3), providing a holistic portrayal of the child, guardian, and family situation. Ensuring the inclusion of indicators reflecting multiple domains of well-being also accounts for the fact that different outcomes may be expected for different programs. However, one limitation in this approach is that the in-depth exploration of only one or more facets of well-being, which may indeed be the strength of a particular program, is not possible. For instance, it may be expected that kids’ clubs would result in principally psychosocial and educational outcomes for children. While the surveys covered these domains, the number of psychosocial or

educational outcomes that could be assessed is naturally limited by the comprehensive nature of the survey. As such, it is not possible to know the full extent of how an individual program may affect a particular domain of well-being. Overall, the multi-dimensional nature of OVC outcomes makes it difficult to be sure that one has sufficient questions to capture all key dimensions the programs are expected to affect.

Another consideration is the appropriate selection of indicators to measure domains of interest. OVC research has not yet put forth recommendations for survey indicators to capture the unique and varying circumstances of these children and their families. As such, we generated indicators in consultation with local and international experts and based on literature reviews. We further relied on standardized measures that have been applied with other populations. Scales are particularly important for measuring latent constructs, such as self-esteem and family functioning. The use of standardized scales heightens the validity and credibility of the findings (e.g., measuring what we say we are measuring), allows for comparisons with past research, and in some cases, facilitates the use of endorsed cut-offs for determining whether there is a problem. Some of the standardized scales applied here, such as HIV knowledge and food security, had been deemed reliable in the study regions, and also worked well within these samples. However, other scales utilized in this study, especially those pertaining to psychosocial well-being, had yet to be validated within eastern Africa.

One way of assessing the appropriateness of the psychosocial measures applied in these contexts is to examine their internal consistency. Cronbach alpha scores measure this, providing a score of how well the items correlate with one another. An alpha of .80 or higher demonstrates good internal consistency, while an alpha of .60-.70 is considered acceptable. Alpha scores beyond .95 are not preferred as it suggests the items were redundant (details pertaining to internal consistency can

be found at the following Web site: http://en.wikipedia.org/wiki/Internal_consistency). Table 12 provides a summary of the Cronbach alpha scores of the psychosocial measures across the four study sites (references for these measures can be found in Table 3). Some scales worked well; for example, the instruments applied to measure the degree of children's social isolation, available adult support and total behavioral difficulties had good and fairly similar alpha levels across of each of the sites. Among guardians, the measure of negative feelings, marginalization and family functioning were consistently good.

On the other hand, the low Cronbach alpha scores of some psychosocial scales applied in this study may suggest these scale items were not entirely reflective of the concept of interest within Kenya and Tanzania. For instance, alpha levels for the measure of pro-social behavior were consistently borderline or poor across all sites. Whereas alpha levels for self-esteem were acceptable, averaging about .65 among youth in Kenya and Tanzania, this measure has consistently had an alpha of .86 in research among youth in Western settings.¹⁸ In some instances, the alpha scores were so low that the scale could not be used. Specifically, several of the sub-scales of the strengths and difficulties scale applied to measure child behaviors had alpha levels below the cutoff of .60 applied in this study. At times, the reliability of a scale ranged considerably, even within the same country. For example, the measure to determine the degree of children's emotional symptoms was .71 in the Allamano study, but it was only .53 among TSA participants elsewhere in Tanzania. The ranging reliability of some these instruments bears consideration for the evaluation findings as it brings into question how well these measures reflect the psychosocial domains of interest among respondents in different settings. In cases where few psychosocial impacts emerged, it may be less of an indication of the programs' ineffectiveness, but instead a product of the indicators applied to measure success.

Table 12. Cronbach Alpha Levels of the Psychosocial Scales Applied across Each of the Study Sites

	Kenya		Tanzania	
	Integrated AIDS Program-Thika	Catholic Relief Services	Allamano	The Salvation Army
Child Psychosocial Indicators				
Strengths and difficulties (sub-scales)				
Emotional symptoms	.69	.57	.71	.54
Conduct problems	.51	.59	.61	.60
Hyperactivity/inattention	.65	.52	.65	.55
Peer relationship problems	.24	.31	.15	.21
Total difficulties*	.74	.75	.75	.71
Pro-social behavior	.54	.61	.62	.56
Self-esteem (sub-scales)				
Family self-esteem	.76	.66	.80	.74
Global self esteem	.65	.65	.70	.65
Social isolation	.77	.77	.80	.76
Adult support	.73	.75	.73	.71
Guardian Psychosocial Indicators				
Quality of life (subscales)				
Negative Feelings	.87	.88	.81	.76
Positive Feelings	.81	.71	.72	.67
Marginalization	.82	.86	.80	.72
Feelings towards the child	.80	.65	.81	.73
Family functioning	.89	.87	.84	.83

* "Total difficulties" is a composite of the four strengths and difficulties sub-scales listed above (emotional symptoms, conduct problems, hyperactivity/inattention, and peer relationship problems).

Findings from this study offer some guidance in terms of potential psychosocial measures to be used among OVC and their families. However, it is clear that additional investment in ascertaining appropriate measures to assess the psychosocial well-being of African families would be advantageous. Other researchers have also noted the need for a coordinated approach in measuring children’s well-being. Specifically, Sherr and colleagues’ systematic review highlights the lack of understanding concerning the psychosocial status of orphans due to the inconsistent measures applied among them.²⁸

While the strengths in applying standardized scales and uniformity in surveys across sites cannot be understated, these advantages must

be weighed with respect to the loss of relevance and information that may be site and program-specific. For scales to be comparable, they must remain intact. Therefore, an inability to modify these measures to be culturally specific may limit their overall validity in certain contexts.

Stakeholder engagement — As mentioned in the methods section, key stakeholders were engaged throughout the evaluation process. They provided input into the study design, site selection, age range of participants, and hypotheses explored. This was achieved through an initial technical meeting in Washington among experts in the OVC field, as well as from the ongoing advisement of the Office of the Global AIDS Coordinator and USAID in Washington. Additional insight was gleaned from

consultation with the local USAID missions in Kenya and Tanzania and other key in-country working groups concerned with OVC, such as the National OVC Steering Committee in Kenya and the OVC Implementing Partners Group in Tanzania. The initial engagement of this broad base of stakeholders fostered the meaningful development of the evaluation and helped to ensure it was conceived in a way that struck a balance between the information funders want, what is possible, and what is useful for program management decisions.

Local stakeholders were also engaged in finalizing the survey instruments. Staff from the partner programs were provided with opportunities to review and give suggestions on the survey content and also participated in the case study information-gathering activities. Their involvement aided in the development of the program exposure survey modules as well indicators for measuring program success. Staff from the local research partners (Population Studies Research Institute within the University of Nairobi in Kenya and Axios Foundation in Tanzania) also helped to pre-test the tools to ensure cultural and contextual relevance of the survey questions. They reviewed draft survey instruments in great detail, providing modifications to ensure linguistic accuracy and inclusion of appropriate indicators of local importance.

Lastly, regular dissemination and discussion opportunities concerning the evaluation were held with local stakeholders throughout the research process. To share information on the evaluation and generate demand, a briefing paper describing the activities was developed at the study outset and disseminated to a broad group of international and national stakeholders. Further, a synthesis of results stemming from all of the case studies was disseminated through presentations in Kenya and Tanzania with project staff and other local stakeholders working on programs and policies related to OVC. Preliminary outcome evaluation results were also shared to provide immediate feedback and to gather input in the development of recommendations. These DDIU activities proved valuable in ensuring overall quality and local relevance of the evaluations and served to provide ongoing guidance to stakeholders in their efforts to develop, improve, and expand programs for OVC. The provision of meaningful opportunities for input, reflection, and action based on lessons learned were important milestones towards achieving the overall goal of this study, to contribute to improvements in OVC programming.

Recommendations

Overarching recommendations for enhancing program implementation, monitoring, and future evaluations are described below. More comprehensive guidance specific to each intervention model investigated can be found within the programmatic implications sections in each of the project evaluation reports.¹⁻⁶ Readers are also encouraged to consider more broadly the key findings and methodological challenges described within this paper as they pertain to their own program management and research needs.

Programmatic Considerations

Comprehensive training and support for volunteers is needed. Findings from these evaluations emphasize the training and support needs of volunteers, who serve as the front-line care providers for OVC and their families. Examining the outcomes and case studies of the two separate kids' clubs programs suggests that perhaps one program was more effective than the other due to its comprehensive training of volunteers, the ongoing support and supervision they receive during meetings from program staff, and the structured curriculum of activities for children. Similarly, home-visiting volunteers noted many gaps in their knowledge that could ultimately influence their effectiveness and may explain the limited impacts found.

It was evident that some training curriculums were missing core topics, such as issues concerning quality psychosocial support and counseling, child development, hygiene, food security tips, and nutrition. Some volunteers were armed principally with only good intentions and lacked information and skills to enhance their efforts. A review process is urgently needed to ensure that the training curriculum of volunteers is up-to-date to meet the needs of the intended audience. The review process will allow for practical and useful changes that are consistent across programs. Programmers may also benefit from guidance in

developing a comprehensive training curriculum. For instance, Pathfinder International in Kenya helped to develop national guidelines for the training of home-based care volunteers to support PLWHA, which were adopted widely across the country.¹⁰ Leaders in core areas of OVC care could undertake and guide a similar process to address the competencies needed of volunteers serving OVC and their families. This would help to ensure that volunteers are trained uniformly in a systematic manner for a specified period of time and that they acquire a range of relevant skills that may ultimately enhance their effectiveness.

Overall, findings suggest the importance of emphasizing quality rather than quantity. Debates on expanding programs should not focus only on improving coverage but more on ensuring that volunteers have the skills to effect change in the lives of the OVC and their families they serve.

Engage guardians in interventions addressing OVC needs. While the ultimate focus of many OVC programs is on children, this study highlights the importance of engaging and supporting guardians. Guardian-focused interventions were associated with not only positive impacts for the participants but also for the children under their care. For instance, data suggest that household food security improved through income-generating activities, and guardian support group participation was associated with indicators reflecting better behavior, care, and treatment of the child. Past research has also established the advantages of tending to the needs of parents or other guardians for enhancing the well-being of children.²⁹⁻³¹ However, findings from these studies also suggest that the needs of guardians were not always met; as, for instance, few guardian-level impacts emerged from home visiting.

Even activities designed for children, such as kids' clubs, could be better if caregivers were engaged at the outset. Programmers should ensure

caregivers' understanding of the importance of children's involvement in these activities as well as gather their input on the initiatives' design and structure (i.e., key needs of children and schedule of activities). Doing so may help to improve the regularity of children's attendance, identify issues to be included in the curriculum, and deter any resentment caregivers may feel about how such activities absorb their children's time.

Enhance linkages between OVC care and support providers. These evaluations make evident that no one program is likely to address the myriad needs of OVC and their caregivers. Alternative sources of support for OVC and their families are clearly needed. However, the dearth of referrals provided by volunteers to address client needs illustrates that few partnerships exist among service agencies. Increased relationship-building and partnerships between humanitarian and other service organizations with potential to address OVC needs would help to ensure more holistic support of beneficiaries. Furthermore, such collaboration recognizes the diverse capacities of organizations and takes into account the inevitable knowledge gaps and strengths of some agencies. For instance, one organization may be particularly strong in providing psychosocial services, whereas another may lack such resources and skills, but have the ability to address physical health needs. A wider range of OVC outcomes is likely to be positively affected by partnerships between service agencies that capitalize on the strengths of one another, inevitably enhancing service delivery to OVC and their families.

Collaboration must also include the wider community in which these children grow and develop. Continuing engagement of community members, both sensitizing them to the needs of OVC and engaging them in decisions concerning support, will help to deter negative community reactions concerning services provided. Overall, in spite of the strengths of the OVC programs evaluated, it is evident that addressing the wide range of OVC needs requires support and engagement from a range of stakeholders.

Ongoing monitoring systems to register and track OVC are needed. The inaccuracies within the beneficiary lists across these study sites highlight the need for a strengthened method for registering and tracking OVC and their families. The fact that so many children could not be located has importance well beyond the scope of this evaluation. It leaves questionable the validity of reported services and the total number of OVC benefiting from programs. In addition, some children who may have enrolled in the program at one time and could then not be located may be even more vulnerable and in need of assistance.

Nationwide OVC databases that include unique identifiers for children and families are being considered in some countries. Such systems aim to track the total number of OVC served and monitor progress and service delivery at a large scale. These systems may be an important step in identifying gaps in service provision and reduce double-counting of children served. However, their utility will be ineffectual if the information they rely upon is flawed.

There are several steps programs could take to support improved validity of their beneficiary lists, including keeping it up to date and ensuring the accuracy of age, identifying information, and location of participants. First, registration should include the child's birth date, rather than the age at time of enrollment. This step may be difficult in some settings and require creative approaches with guardians to develop reasonable estimations. Further, both the child's name and the names of guardians could be accurately documented if programs provided beneficiaries assistance in obtaining identity documents; and such efforts can help children in the long-term as well. In instances where families and children already have such documents, programs should refer to them during registration. In addition, it is well-documented that communities are best positioned to identify and support OVC,³² and such community-level systems could also be engaged to track the potential mobility of these

beneficiaries. Follow-up of OVC by community members may be enhanced by program efforts to explain to communities the potentially increased vulnerability of “lost” OVC and establishment of mechanisms for reporting such instances. Lastly, the national OVC identification guidelines utilized across programs in Tanzania may have advantages in ensuring uniformity across sites and perhaps explains the better accuracy in these lists compared to the program in Kenya.

Regular assessments of program coverage and client participation is needed. Beneficiary reports of services received did not match the expectations of programmers who considered those clients as part of the “intervention” group. It may be that some services, such as kids’ clubs or support groups, were initially offered to clients, and programmers assumed participation while clients chose not to engage in these services after one or more visits or not at all. For services that require active participation of clients (e.g., attending meetings), there may be client-specific or even intervention-specific barriers affecting their attendance that programs could address. For instance, child care needs, transportation, and psychological or health issues may limit their participation. There could also be issues with demand, in that they do not feel the service is relevant to their needs. Even services that require more passive participation on the part of beneficiaries, such as home visiting, may not occur for several possible reasons. Perhaps volunteers do not actually complete their agreed-upon responsibility of visiting each household assigned to them or there is a disagreeable match between the household and the volunteer.

The reasons for lack of participation in available services are unknown and may vary by client. Programmers should find ways to follow up with individual beneficiaries routinely, to determine how many clients are truly receiving services, and uncover potential barriers to service participation. For instance, program staff from a mentor program in Rwanda conducted quarterly visits to each household to monitor the relationship between

volunteer home visitors and children.³³ Such follow-up could also be conducted in consultation with volunteers not directly involved in delivering such services, such as community committee members. To ensure quality care and obtain accurate indications of the use and availability of resources, it is important that programmers monitor client participation and update their client list continuously by type of service.

Future Directions for Evaluations of OVC Programs

Conduct case studies for the programs to be evaluated. Based on the lessons learned from this study, investing in case studies before the development of survey instruments and conducting an outcome evaluation is recommended. Case studies served to be very valuable, providing researchers with increased understanding of program activities to inform the target age groups for the evaluations, outcomes to be assessed, as well as the development of intervention modules questions tailored specifically to each program. Case studies also provided some insights that helped explain some of the findings from the evaluation analyses. The examination of the strengths and weaknesses of the program, the type of services they provide, and their target population informed the evaluation design and enhanced understanding of the findings.

Increased investment in the development of OVC program evaluation tools is needed. Policy-makers and program staff should support the development and improvement of ethically sound survey measures that can be used to conduct evaluations in a standardized manner. One way to improve the availability of appropriate measures is to allocate time and money at the study outset for a pre-test of the survey among a sample of at least 100 participants and analyses of the initial data (i.e., psychometric properties and frequencies of responses). Doing so would facilitate refinements that would inevitably improve the quality of the data collected among the full sample and offer immediate lessons to others engaging in OVC

research and evaluation activities. In addition, continued testing of existing measures in a variety of contexts would be valuable. In particular, further research is required to establish quality measures relevant to the psychosocial well-being of children and their families in sub-Saharan Africa. Field trials with the principal purpose of validating mental health measures have been undertaken in Africa and are a useful investment for discerning the appropriateness of Western-based psychological concepts in these settings.³⁴ Yet, the development of new indicators across a broad spectrum of domains relevant to the circumstances of HIV-affected children and their families is needed. In practice, even established indicators may need adaptation to ensure cultural relevance. However, efforts to provide a compendium of indicators with corroborating field trial results would provide sound guidance to those undertaking OVC research and also help to promote comparability across sites.

Evaluations should be an integral part of overall program implementation. Organizations that participated in this evaluation were very interested in the activity, as they wanted to learn and have documentation of their program achievements and areas needing improvement. Other OVC service agencies in the region participating in the dissemination activities also indicated they would have liked the opportunity to be evaluated. Programmers revealed they lacked sufficient resources to undertake such evaluation activities on their own. Some initiatives even had baseline data among their participants but lacked funds to continue a rigorous evaluation process. Resources specifically set aside for evaluation studies should be an integral part of funding for OVC programs. However, programs could also use existing simple tools such as the Child Status Index to assess and monitor regularly child well-being of their beneficiaries.³⁵

Evaluations of OVC programs serving adolescents are needed. The focus of these evaluations on children age 8-14 is in alignment

with the principal age group served by most of these programs. Indeed, there is growing recognition that the bulk of OVC programs in HIV-affected communities principally serve younger children, giving less attention and support to adolescents.³⁶ OVC programs generally tend to neglect the particular psychosocial, educational, reproductive health, and livelihood needs of adolescent orphans.³² Considering that the majority of orphans are adolescents,³⁷ it is particularly worrisome that programs are not reaching these youth. Moreover, not only are OVC adolescents underserved, growing evidence highlights they may have an elevated risk of acquiring HIV infection and sexually transmitted diseases due to earlier age of sexual onset, higher likelihood of teenage pregnancy, and engagement in transactional sex.³⁸⁻⁴²

Adolescent needs are complex and programmers need guidance as to how best to meet such needs. To achieve this end, a holistic understanding of the situation of adolescent OVC and identification of best practices is imperative. Evaluations that provide empirical evidence to inform the development and scale-up of interventions for adolescent OVC would be very valuable.

Evaluations of OVC programs in urban environments are needed. This evaluation study concentrated on programs based principally within rural settings and only one peri-urban environment. However, in many countries within Africa, the prevalence of orphans is actually greater in urban environments.¹² Children and families within urban and rural environments face different cultural and contextual issues that affect program design and success.⁴³ To fill this evidence gap, more evaluations of OVC programs operating in major metropolitan areas across AIDS-affected communities are needed. Evaluations of similar interventions within both a rural and urban environment in the same country would also be valuable. Such evaluations would provide useful insights on the potential challenges and successes of OVC programming across a variety of contexts.

Increased rigor in future evaluations is needed.

These evaluations contribute to a scarce body of evidence concerning best practices for serving OVC. While this study provided expedient data to inform OVC programming, the post-test study design makes it difficult for the outcomes to be directly attributed to program exposure. In addition, interventions serving OVC are long-term and the strategies employed, as well as child and family needs, may evolve over time. Therefore, to ascertain evidence of program impact better, the next stage of evaluations should include experimental and longitudinal designs. While these studies require an increased investment of time and money, the data yielded will better inform effective programming and efficient use of limited resources. Ultimately, programmatic decisions grounded in a strong evidence-base will better serve children in need.

Follow-up survey among these same samples is needed.

In some cases, children and caregivers that participated in these studies had been exposed to the program for only a short period of time. Other impacts may arise among this sample as a result of both extended duration of program involvement as well as from intervention improvements stemming from these evaluation findings. Among three of the study populations engaged in this activity (those other than IAP), consenting participants provided contact and tracking information for potential follow-up among them in the future. Conducting surveys among these samples in two to three years would enhance understanding of program impacts. In particular, the current data of those unexposed to the intervention could serve as a baseline, and follow-up data among them would allow for assessments of changes over time that could be definitively attributed to the program. Repeating surveys even among those within this sample who reported exposure to the intervention strategies would provide insight on the added benefit of extended program engagement. These data and the willingness of many respondents to participate again present a fruitful opportunity for

the expansion of the knowledge base concerning the impact of OVC programs.

References

1. Nyangara F, Kalungwa Z, Obiero W, Thurman TR, Chapman J. *Promoting a Home-Based Program Model for Supporting Children Affected by HIV/AIDS: Evaluation of Tumaini Project in Iringa Region, Tanzania*. Chapel Hill, NC: MEASURE Evaluation; 2009.
2. Thurman T, Rice J, Ikamari L, Jarabi B, Mutuku A, Nyangara F. *The Difference Interventions for OVC Guardians Can Make: Evaluation of the Kilifi Orphans and Vulnerable Children Project in Kenya*. Chapel Hill, NC: MEASURE Evaluation; 2009.
3. Nyangara F, Obiero W, Kalungwa Z, Thurman TR. *Community-Based Psychosocial Intervention for HIV-Affected Children and their Caregivers: Evaluation of The Salvation Army's Mama Mkubwa Program in Tanzania*. Chapel Hill, NC: MEASURE Evaluation; 2009.
4. Thurman TR, Hutchinson P, Ikamari L, Gichuhi W, Murungaru K, Nyangara F. *Community Education and Sensitization as an OVC Care and Support Strategy: Evaluation of the Integrated AIDS Program-Thika in Kenya*. Chapel Hill, NC: MEASURE Evaluation; 2009.
5. Thurman TR, Hutchinson P, Lavin B, Ikamari L. *Promoting HIV Prevention and Testing: Evaluation of the Integrated AIDS Program-Thika in Kenya*. Chapel Hill, NC: MEASURE Evaluation; 2009.
6. Thurman TR, Hutchinson P. *Analyzing the Cost-Effectiveness of Interventions to Benefit Orphans and Vulnerable Children: Evidence from Kenya and Tanzania*. Chapel Hill, NC: MEASURE Evaluation; 2009.
7. Littrell M, Thurman T, Chatterji M, Brown L. *The Tumaini Home-Based Care Program*. Chapel Hill, NC: MEASURE Evaluation; 2007.
8. Littrell M, Thurman T, Chatterji M, Brown L. *Mama Mkubwa Psychosocial Support Program: A Case Study*. Chapel Hill, NC: MEASURE Evaluation; 2007.
9. Thurman TR, Hoffman A, Chatterji M, Brown L. *A Case Study: Kilifi Orphans and Vulnerable Children Project*. Chapel Hill, NC: MEASURE Evaluation; 2007.
10. Thurman TR, Hoffman A, Chatterji M, Brown L. *A Case Study: Community-Based HIV/AIDS Prevention, Care, and Support Program*. Chapel Hill, NC: MEASURE Evaluation; 2007.
11. Thurman TR, Neudorf K. *A Case Study. Integrated AIDS Program Thika, Kenya*. Chapel Hill, NC: MEASURE Evaluation and Pathfinder International; 2008.
12. United Nations Children's Fund (UNICEF). *Africa's Orphaned and Vulnerable Generations: Children Affected by AIDS*. New York, NY: UNICEF; 2006.
13. United Nations Children's Fund (UNICEF). *The Framework for the Protection, Care and Support of Orphans and Vulnerable Children Living in a World with HIV and AIDS*. New York, NY: UNICEF; 2004.
14. Coates J, Swindale A, Bilinsky P. *Household Food Insecurity Access Scale (HFIAS) for Measurement of Household Food Access: Indicator Guide*. Vol. 3. Washington: Food and Nutrition Technical Assistance Project, Academy for Educational Development; 2007.

15. United Nations Children's Fund (UNICEF). *Guide to the Monitoring and Evaluation of the National Response for Children Orphaned and Made Vulnerable by AIDS*. New York, NY: UNICEF; 2005.
16. Boris N, Thurman T, Snider L, Spencer E, Brown L. Infants and young children living in youth-headed households in Rwanda: implications of emerging data. *Infant Mental Health J*. 2006;27(6):584-602.
17. Thurman TR, Snider L, Boris N, Kalisa E, Mugarira EN, Ntaganira J, et al. Psychosocial support and marginalization of youth-headed households in Rwanda. *AIDS Care*. 2006;18(3):220-229.
18. Dubois D, Felner R, Brand S, Phillips R, Lease AM. Early adolescent self-esteem: a developmental-ecological framework and assessment strategy. *J Res Adol*. 1996;6(4):543-579.
19. The KIDSCREEN Group Europe. *The KIDSCREEN Questionnaires. Quality of Life Questionnaires for Children and Adolescents*. Handbook and CD ROOM. Lengerich, Germany: Pabst Science Publishers, 2006.
20. WHOQOL-HIV Group. Preliminary development of the World Health Organization's Quality of Life HIV Instrument (WHOQOL-HIV): analysis of the pilot version. *Soc Sci Med*. 2003;57: 1259-1275.
21. Lugaila TA. *A Child's Day: 2000 (Selected Indicators of Child Well-being), Current Population Reports*. P70-89. Washington: U.S. Census Bureau; 2003.
22. Goodman R. Psychometric properties of the Strengths and Difficulties Questionnaire (SDQ). *J Am Acad Child Adol Psychiatry*. 2001;40:1337-1345.
23. Epstein N, Baldwin L, Bishop D. The McMaster Family Assessment Device. *J Marital Fam Therapy*. 1983;9:171-180.
24. Central Bureau of Statistics (CBS) [Kenya], Ministry of Health (MOH) [Kenya], Kenya Medical Research Institute, National Council for Population and Development [Kenya], ORC Macro, Centers for Disease Control and Prevention [Kenya]. *Kenya Demographic and Health Survey 2003*. Calverton, MD: CBS, MOH, and ORC Macro; 2004.
25. Snider L, Dawes A. Psychosocial vulnerability and resilience measures for national-level monitoring of orphans and other vulnerable children: recommendations for revision of the UNICEF psychological indicator. Unpublished. Draft available at http://www.childinfo.org/files/PsychosocialMeasures_Final06.pdf.
26. Tanzania Commission for AIDS (TACAIDS), National Bureau of Statistics (NBS), ORC Macro. *Tanzania HIV/AIDS Indicator Survey, 2003-2004*. Calverton, MD, USA: TACAIDS, NBS, and ORC Macro; 2005.
27. Kenya Ministry of Health. *HIV/AIDS Data Book*. Nairobi, Kenya: Kenya Ministry of Health; 2005.
28. Sherr L, Varrall R, Mueller J, Richter L, Wakhweya A, Adato M, et al. A systematic review on the meaning of the concept 'AIDS orphan': confusion over definitions and implications for care. *AIDS Care*. 2008;20(5):527-536.
29. Beardslee WR, Gladstone TR, Wright EJ, Cooper AB. A family-based approach to the prevention of depressive symptoms in children at risk: evidence of parental and child change. *Pediatrics*. 2003;111(2):119-131.

30. Kim-Cohen J, Moffitt TE, Taylor A, Pawlby SJ, Caspi A. Maternal depression and children's antisocial behavior: nature and nurture effects. *Arch Gen Psychiatry*. 2005;62(2):173-181.
31. Richter LM. *The Importance of Caregiver-Child Interactions for the Survival and Healthy Development of Young Children: A Review*. Geneva: World Health Organization; 2004.
32. Williamson JG. Finding a way forward. In Foster G, Levine C, Williamson, JG, eds. *Generation at Risk The Global Impact of HIV/AIDS on Orphans and Vulnerable Children*. New York: Cambridge University Press; 2006:262-263.
33. Brown L, Thurman TR, Kalisa E, Rice J, Bizimana J, Boris N, et al. Supporting volunteer mentors: insights from a mentorship program for youth-headed households in Rwanda. *Horizons Research Summary*. Washington: Population Council; 2007.
34. Bolton P. Cross-cultural validity and reliability testing of a standard psychiatric assessment instrument without a gold standard. *J Nerv Ment Dis*. 2001;189(4):238-242.
35. O'Donnell K, Nyangara F, Murphy R, Nyberg B. *Child Status Index: A Tool for Assessing the Well-being of Orphans and Vulnerable Children*. Chapel Hill, NC: MEASURE Evaluation; 2009. Available at <http://www.cpc.unc.edu/measure/tools/hiv-aids/child-status-index>.
36. Osborn K. *Adolescents: Missing from Programs for the World's Orphans and Vulnerable Children*. Washington: Advocates for Youth; 2007.
37. Schueller J, Liku J, Hubbard G, Odede W, Shaban S, Njeri A. (2006). *Assessment of Youth Reproductive Health and HIV/AIDS Programs in Kenya*. Research Triangle Park, N.C.: Family Health International; 2006.
38. Gregson S, Nyamukapa C, Garnett GP, Wambe M, Lewis JJC, Mason PR, et al. HIV infection and reproductive health in teenage women made vulnerable by AIDS in Zimbabwe. *AIDS Care*. 2005;17(7):785-794.
39. Kang M, Dunbar M, Laver S, Padian N. Maternal versus paternal orphans and HIV/STI risk among adolescent girls in Zimbabwe. *AIDS Care*. 2008;20(2):221-224.
40. Juma M, Askew I, Ferguson A. *Situation Analysis of the Sexual and Reproductive Health and HIV Risks and Prevention Needs of Older Orphaned and Vulnerable Children in Nyanza Province, Kenya*. New York: Department for International Development, Constella-Futures, and Population Council; 2007.
41. Nyamukapa CA, Gregson S, Lopman B, Saito S, Watts HJ, Monasch R, et al. HIV-associated orphanhood and children's psychosocial distress: theoretical framework tested with data from Zimbabwe. *Am J Public Health*. 2008;98:133-141.
42. Thurman TR, Brown L, Richter L, Maharaj P, Magnani R. (2006). Sexual risk behavior among South African adolescents: Is orphan status a risk factor? *AIDS Behav*. 2006;10(6):627-635.
43. Magalla A, Houlihan H, Charwe D, Kipagasi K, Bhatt P, Reeler A. Urban-rural differences in programs on orphans and vulnerable children in AIDS affected areas in Tanzania. International Conference on AIDS, July 7-12, 2002. 14: abstract no. TuPeG5669. Available at <http://gateway.nlm.nih.gov/MeetingAbstracts/ma?f=102252341.html>.

**MEASURE Evaluation
Carolina Population Center
University of North Carolina at Chapel Hill
206 W. Franklin Street
Chapel Hill, NC 27516 USA
919.966.7482 / measure@unc.edu
<http://www.cpc.unc.edu/measure>**