



The Cost of Case Management in Orphans and Vulnerable Children Programs

Results from a Mixed-Methods,
Six-Country Study

February 2019



The Cost of Case Management in Orphans and Vulnerable Children Programs

Results from a Mixed-Methods, Six-Country Study

Stacie Gobin, MPH, MEASURE Evaluation, Palladium
Shaylen Foley, MPH, MEASURE Evaluation, Palladium

MEASURE Evaluation
University of North Carolina at Chapel Hill
123 West Franklin Street, Suite 330
Chapel Hill, NC 27516 USA
Phone: +1 919-445-9350
measure@unc.edu
www.measureevaluation.org

This publication was produced with the support of the United States Agency for International Development (USAID) under the terms of MEASURE Evaluation cooperative agreement AID-OAA-L-14-00004. MEASURE Evaluation is implemented by the Carolina Population Center, University of North Carolina at Chapel Hill in partnership with ICF International; John Snow, Inc.; Management Sciences for Health; Palladium; and Tulane University. Views expressed are not necessarily those of USAID or the United States government. TR-19-327

ISBN: 978-1-64232-121-0



ACKNOWLEDGMENTS

We thank the United States President’s Emergency Plan for AIDS Relief (PEPFAR) for its support of this research and report.

We would like to thank Amy Aberra and S. Joshua Volle, of the United States Agency for International Development (USAID), and Christine Fu (formerly of USAID) for guiding this activity and for their review of the report. We also thank Lisa Parker and Scott Moreland of the USAID- and PEPFAR-funded MEASURE Evaluation for their technical input and review.

This research would not have succeeded without the collaboration and participation of the implementing partner staff with whom we worked:

- FXB Rwanda: Adeline Manikuzwe, Joshua Tahinduka, Frank Sebaziga, and Emmanuel Habyarimana
- Pact Tanzania: Christina Kyaruzi, Conjesta Shao, Flora Gitari, John Charles, Simon Samwel, Elizabeth Jere, and Allison Koler
- World Education/Bantwana Uganda: Neckvilleus Kamwesigye, Joseph Akwanget, Damiano Kaufa, and Massimo Lowicki-Zucca
- Pact South Africa: Christel Jacob, Danielle Simpson, Megan Briede, Ntseiseng Lephole-Pinda, Sibusiso Mdamba, Ithumeleng Machusi, and Mahalia Phala
- Save the Children/Nigeria: Halima Dikko, Oluwwasola Olanipekun, Abdullahi M. Hassan, and Abdullahi Abubakar
- Expanded Church Response/Zambia: Yvonne Panda, Wilfred Manda, Angela Mazuba, and Mulima Walubita
- All case workers and their supervisors who contributed to the research

We thank the knowledge management team of MEASURE Evaluation, based at the University of North Carolina at Chapel Hill, for editorial, design, and production services.

Cover photo credit: Jeremy Wilburn.

CONTENTS

- Figures 5
- Tables 5
- Abbreviations 6
- Executive Summary..... 7
- Introduction 9
 - USAID and PEPFAR..... 9
 - Orphans and Vulnerable Children Programs 9
 - Case Management in OVC Programs..... 9
 - Costing of OVC Intervention Areas..... 10
 - Study Objectives 11
- Methods 12
 - Research Questions..... 12
 - Project Selection 12
 - Mapping Assessment 12
 - Qualitative Methods..... 13
 - Quantitative Methods 14
 - Ethical Considerations..... 16
- Results 18
 - Project Features and Case Management Approach..... 18
 - Crosscutting Project Features Related to Case Management..... 22
 - Cost Analysis Results 28
- Discussion..... 33
- Recommendations 37
- References..... 38
- Appendix A. Cost Analysis Details 40
 - Inclusion and Exclusion Criteria for Case Management Costs 40
 - Cost Analysis Parameters & Allocation Decisions, by Project 41
- Appendix B. Qualitative Analysis Details 47
- Appendix C. Cost Analysis Results 51

FIGURES

Figure 1. 4Children process for OVC case management 10

Figure 2. The cost categories used to describe case management-related costs 16

Figure 3. Rwanda Turengere Abana supervision structure..... 23

Figure 4. Uganda BOCY supervision structure..... 24

Figure 5. Quality case management 34

TABLES

Table 1. Mapping and qualitative interviews conducted, by project 13

Table 2. Quantitative data collection 15

Table 3. Project features 18

Table 4. Case worker attributes 25

Table 5. Total annual case management expenditures and cost per beneficiary 29

Table 6. Heat map of case management spending, by category (typologies)..... 32

ABBREVIATIONS

ABC	activity-based costing
BOCY	Better Outcomes for Children and Youth
CBO	community-based organization
CCMW	community case management worker
CSO	civil society organization
CW	case worker
DSD	Department of Social Development
EA	expenditure analysis
ECR	Expanded Church Response
GL	general ledger
GCBS	Government Capacity Building and Support
HQ	headquarters
IM	implementing mechanism
ISLG	internal savings and loan groups
JSI	John Snow, Inc.
LCW	lead case worker
LOE	level of effort
M&E	monitoring and evaluation
MER	monitoring, evaluation, and reporting
NPO	nonprofit organization
OVC	orphans and vulnerable children
PEPFAR	United States President’s Emergency Plan for AIDS Relief
SDCA	step-down cost accounting
STEER	Systems Transformed for Empowered Actions and Enabling Responses
USAID	United States Agency for International Development
ZAMFAM	Zambia Family [Project]

EXECUTIVE SUMMARY

Background

Little is known about how much it costs to implement services for orphans and vulnerable children (OVC), such as case management. When cost estimate data are available, the ranges for unit expenditures are strikingly wide and it is difficult to compare across programs or intervention service areas. Case management—a cornerstone of OVC programming and the platform on which OVC services are delivered—is largely conducted by community-based case workers (CWs). Research shows that CWs contribute meaningfully to HIV service delivery, impacting the social determinants of health through the delivery of comprehensive suites of interventions. However, few cost analyses have attempted to disaggregate the costs of case management from other OVC program service areas.

Purpose

To address this gap, the United States Agency for International Development (USAID)- and United States President's Emergency Plan for AIDS Relief (PEPFAR)-funded MEASURE Evaluation worked with six OVC projects in six countries to gain insight on current approaches to OVC case management, map how costs can be linked to OVC case management activities, and determine the cost of OVC case management. To further inform and strengthen our understanding of the cost data, the study also qualitatively explored the context of the CWs' experiences related to OVC case management.

Methods

This study used a parallel data collection approach to obtain retrospective financial and beneficiary data, while simultaneously conducting 187 interviews with project staff and volunteers. Several levels of project implementation were assessed, where appropriate: at headquarters, subnational offices, and local partner offices. Data were collected between July and November 2017. Qualitative data were analyzed through content analysis of researcher interview notes and were used to support the categorization and assignment of costs. Quantitative data were analyzed through a combination of activity-based costing and step-down cost accounting. Project beneficiary data were used to calculate the cost per beneficiary, and the qualitative results were used to explore and interpret the quantitative findings.

Results

The six OVC projects varied in size, setting, and reach. Major variations related to OVC case management included the role of the government in CW supervision, the complexity of the supervision cascades overseeing the CWs, and the characteristics of the CWs. The cost per beneficiary across the six implementing mechanisms (IMs) in the study ranged from US\$9 to US\$50. A large proportion of overall project expenditures could be attributed to case management (15% to 55%). The cost breakdown by category ranged from a high of 56.8 percent on training in Tanzania to a low of 1.2 percent on CW support in Rwanda. The distribution of expenditures by category reflected the specific features, structure, and approaches to case management found in each project. Three cost categories were consistently related to spending: supervision, training, and administrative personnel.

Discussion

Similar to previous studies of the cost of OVC programs, we found wide variations in annual case management costs, the cost per beneficiary, the proportion of total expenditures, and the relative distribution of spending by

cost element. The differences were due to the differences in case management modalities and the variation in how IMs chose to invest in case management versus in other project service areas. The contextual information provided by the interviews helped bolster and support the cost estimates found in this study. Without the parallel approach of collecting both quantitative and qualitative data, the contextual information to triangulate with the quantitative data would have been lacking, and the validity of the results would have decreased.

INTRODUCTION

USAID and PEPFAR

The United States President’s Emergency Plan for AIDS Relief (PEPFAR) has worked in 50 countries over the past 15 years to save and improve lives through HIV diagnosis and treatment. The United States Agency for International Development (USAID) is a global leader in the delivery of HIV services. The efforts of these agencies have shifted the course of the global HIV epidemic. Current activities endeavor to achieve and maintain HIV epidemic control or reach a point at which new HIV infections have decreased and fall below the number of all-cause mortality for people living with HIV (USAID, 2017). To achieve epidemic control, it is imperative that USAID and PEPFAR support high quality, cost-efficient HIV projects at both facility and community levels. PEPFAR also aims to transition 70 percent of funding to local partners by the end of 2020, a goal that requires an understanding of how much these projects and their components cost (Center for Global Development, 2018).

Orphans and Vulnerable Children Programs

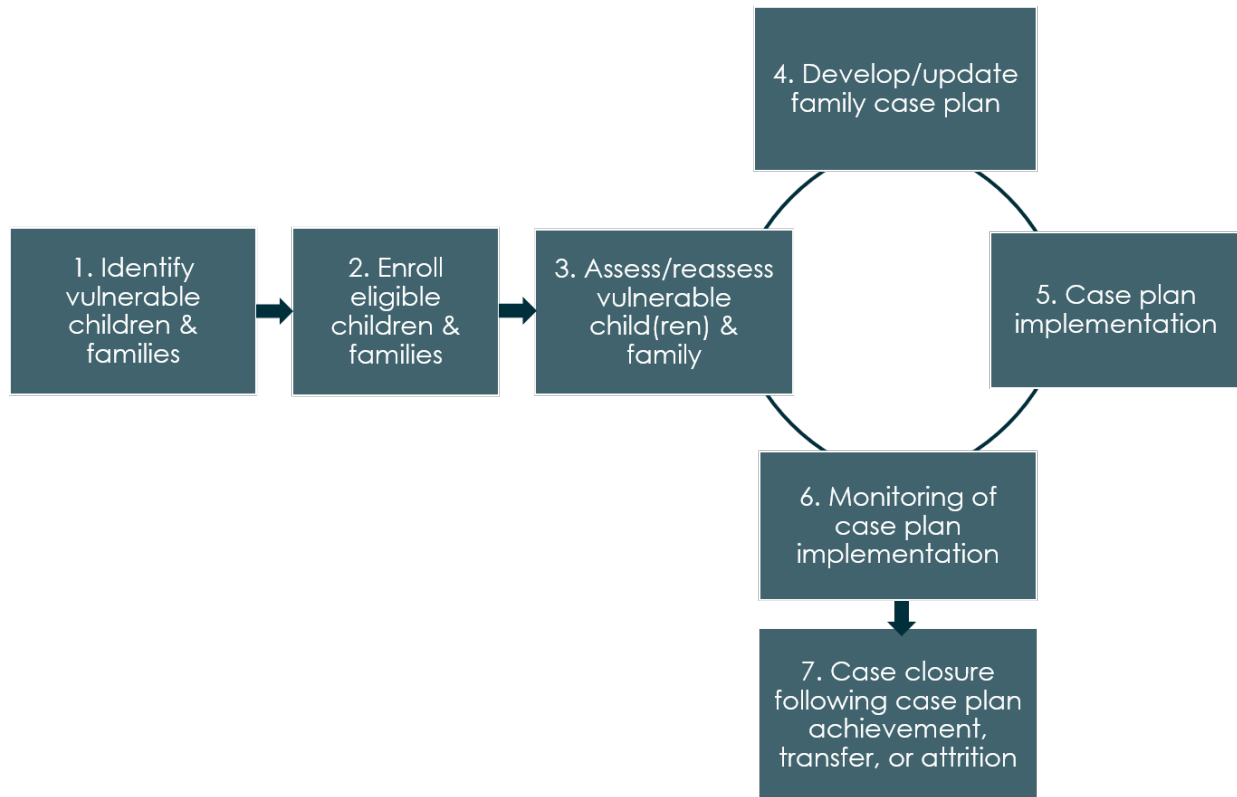
Interventions for orphans and vulnerable children (OVC) are socioeconomically driven, community-based service delivery programs that target children under age 18 who have lost one or both parents to AIDS (PEPFAR, 2012). OVC programs aim to improve the children’s resilience to meet their basic needs for health, safety, stability, and schooling through the provision of services, such as case management, psychosocial support, early childhood development, and household economic strengthening. OVC programs are currently implemented in 22 USAID countries. They fill a critical gap in community-based HIV prevention, providing linkages for which facility-based programs do not have capacity — household-level case management. OVC programs involve people already embedded in the communities who engage with vulnerable families in the role of a case worker (CW). Research demonstrates that CWs contribute meaningfully to HIV service delivery, impacting the social determinants of health through the provision of comprehensive suites of interventions (Mwai, Mburu, Torpey, Frost, Ford, & Seeley, 2013; Perry, Zulliger, & Rogers, 2014). The holistic programming also helps build the capacity of a family or a caregiver to meet basic needs, therefore removing economic barriers to HIV testing and treatment, reducing HIV stigma in the community, and improving education and knowledge in the community about HIV. The end goal of OVC programming is to reduce vulnerability to HIV and AIDS, contribute to HIV prevention, and bolster access to and retention in HIV treatment among children in high-prevalence communities (PEPFAR, 2015).

Case Management in OVC Programs

The foundation of OVC interventions is case management, or the process of “working in partnership with children and families to identify, plan and complete a series of actions in an effort to achieve specific goals” (Catholic Relief Services, 2017). According to Coordinating Comprehensive Care for Children (4Children), case management is a process composed of seven critical steps (Figure 1). These seven steps build on each other. The process starts with the identification of children who are orphaned, affected, or made vulnerable by HIV and AIDS. Children and their families are identified through HIV-specific services, other social services, and targeted initiatives. Formal enrollment then ensures that those identified meet criteria and are assigned a CW. The assessment stage identifies the specific needs and resources associated with the children and their families. Reassessment may take place regularly or following any changes in the household. Case action plans specific to the children and their families are then developed and implemented. These actions are supported by

monitoring activities that involve meeting the children and their families at regular intervals. Case closure takes place following case plan achievement, transfer, or loss through attrition. This last step is also called graduation.

Figure 1. 4Children process for OVC case management



Source: Catholic Relief Services, 2017

Costing of OVC Intervention Areas

The financial information tracked by international development programs and reported to their donors is often inadequate for financial and program monitoring purposes. Complex socioeconomic interventions, such as OVC programs, lack standardized approaches to developing unit expenditure by service category (Byford & Sefton, 2003), making it difficult to plan and allocate resources using the expenditure data reported to donors, such as PEPFAR, by implementing mechanisms (IMs) (i.e., project implementers) because of the limitations in the granularity of reporting requirements. IMs often struggle to align their projects with the categories and cost groupings expected. In the context of case management, this issue is magnified by the inherent challenges in defining costs attributable to such an integral yet enigmatic component of OVC programming.

Little is known about how much it costs to implement OVC intervention services, such as case management, psychosocial support, early childhood development, and household economic strengthening. When cost estimate data are available, the ranges for unit expenditures are strikingly wide, and it is difficult to compare across programs or intervention service areas (Santa-Ana-Tellez, DeMaria, & Galarraga, 2011). Moreover, few

cost analyses have attempted to disaggregate the costs of case management from other OVC program areas (Santa-Ana-Tellez, DeMaria, & Galarraga, 2011; Stover, Bollinger, Walker, & Monasch, 2007).

Given the relevance of case management in OVC programs and the increasing importance of granular and accurate cost data to improve program performance, better cost estimates of OVC case management are vital to understanding USAID and PEPFAR's work in HIV epidemic control.

Study Objectives

To address this gap, MEASURE Evaluation worked with six OVC projects in six countries to gain insight on current approaches to OVC case management, map how costs can be linked to OVC case management activities, and determine the cost of OVC case management.

Evaluators and other professionals in the field of international development recognize the importance of incorporating multiple methods in a single evaluation. Mixed-methods approaches, which collect qualitative and quantitative data, result in stronger and more complete evaluations. These parallel data collection methods, which can be used to triangulate findings, also increase the validity of conclusions (Bamberger, Rugh, & Mabry, 2006).

For this reason, we also aimed to explore the context of the OVC CWs' experiences to inform and strengthen our understanding of the cost data.

METHODS

This study used a parallel data collection approach to obtain retrospective financial and beneficiary data, while simultaneously conducting 187 interviews with project staff and volunteers. Several levels of project implementation were assessed, where appropriate: at headquarters (HQ), subnational offices, and local partner offices. Data were collected between July and November 2017. Qualitative data were analyzed through content analysis of researcher interview notes and were used to support the categorization and assignment of costs. Quantitative data were analyzed through a combination of activity-based costing (ABC) and step-down cost accounting (SDCA). Project beneficiary data were used to calculate the cost per beneficiary and the qualitative results were used to explore and interpret the quantitative findings.

Research Questions

The research questions that guided the study were:

1. What are the **unit expenditures** of different **OVC case management interventions** and what **drives** these costs?
2. What is the **context** for case management costs?

Project Selection

MEASURE Evaluation collaborated with USAID/Washington to identify priority countries and IMs. The objective was to select projects with case management approaches that aligned with the 4Children definition. Within this context, we aimed to see diversity among the CW type/cadre (parasocial worker versus social worker versus community health worker). We assumed that the CW type/cadre served as a proxy for both CW compensation (unpaid, paid contingently, paid) and training. Six projects in six countries were selected for data collection:

- Rwanda: FXB-Turengere Project
- Uganda: Better Outcomes for Children and Youth (BOCY)
- Tanzania: Kizazi Kipya Project
- Nigeria: Systems Transformed for Empowered Actions and Enabling Responses (STEER)
- Zambia: Zambia Family (ZAMFAM) Project
- South Africa: Government Capacity Building and Support (GCBS)

Mapping Assessment

Before data collection, study researchers asked each project for written documentation, such as annual reports and other project documents. When in-country, the initial interviewing focused on HQ-level project staff, endeavoring to understand each project's case management approach, which staff or volunteers were involved,

and what activities were implemented. A total of 37 project staff were interviewed, either individually or in groups, across the six countries (Table 1). This information was used during analysis to map the case management process and activities for each project. Eight finance staff were also interviewed to collect cost data and better understand how to link existing costs to project activities.

Qualitative Methods

Individual in-depth interviews were conducted with CWs and their supervisors in English or using a translator. We worked with project staff to select the interview locations and interviewees, with sampling based on geographic distribution and gender. A total of 71 interviews were conducted with CWs, 36 interviews with their supervisors or other project staff responsible for indirect supervisory support, and 35 interviews with government staff in those contexts where the government was engaged directly in programming (Table 1).¹ Finance personnel were interviewed in each project to understand the finance system and collect or extract relevant records. The number of interviews done with different stakeholder groups depended on the structure found in each location. No further interviews were conducted once saturation was reached and no new information was emerging from the interviews (Corbin & Strauss, 2014). All qualitative interviews were confidential and collected no personal identifiers. Participants provided verbal consent following a discussion of the study purpose and their roles. Appendix B provides the qualitative question guides and consent forms.

Methodological Approach

Given the complexity of OVC programs, the novel use of mixed-methods data collection and analysis resulted in richer overall findings, allowed for the exploration of additional research questions linked to costs, and provided a new lens for interpreting the cost per beneficiary data. For those interested in a more detailed breakdown of the methodological decisions made, see Appendix A.

Table 1. Mapping and qualitative interviews conducted, by project

Population	Rwanda FXB	Tanzania Kizazi Kipya	Uganda BOCY	South Africa GCBS	Zambia ZAMFAM	Nigeria STEER	TOTAL
HQ project staff	4*	2	3*	14*	9	5	37
Case workers	12	13	9	5	22*	10	71
Case worker supervisors	6	6	6	2	5	11*	36
Government personnel	0	4	4	24	3	0	35
Finance personnel	1	2	2	1	1	1	8

*Number includes group interviews

¹ Most projects used a wide range of specialized terms to refer to CWs and those supervising them. To simplify things for the reader, we use the generic term of CW to refer to the personnel engaged directly at the field level in OVC case management and home visits. CWs report directly to direct supervisors. Those responsible for overseeing direct supervisors are referred to as indirect supervisors. Alternative terms may be used for the South Africa project.

The data were compiled, compared, and extracted from the interview notes, and organized in a Microsoft Excel spreadsheet using a content analysis approach developed by the study team. The researchers used a framework of pre-established content areas (Hsieh & Shannon, 2005) to systematically review and extract relevant data from each interview. The content areas focused on interviewee background, education, training and supervision, case management, compensation, and quality. Sub-areas focused on additional details within each content area, and involved extracting a combination of numeric and textual information, i.e., reported number of training sessions received (numeric); training still desired (text); number of households in the CW's caseload (numeric); and perception of caseload (text). The resulting data were then compiled and compared in summary tables (mixing numeric and textual content), and were used to identify commonalities or themes, an iterative process that took place as more content was extracted (Beebe, 2001). The qualitative data were triangulated with the quantitative data by linking content area information to the corresponding cost area data.

Quantitative Methods

Retrospective micro-cost² data were collected using a combination of ingredients³ and expenditure approaches.⁴ Both financial and economic costs were collected. Table 2 presents the cost data collection parameters. The data were collected from multiple sources, including budgets, workplans, expenditure summaries, accounting/financial accounts, and interviews. Where relevant, the cost data were collected from up to three levels of project intervention: HQ, subnational offices, and local partner offices. In the case of South Africa, cost data were also collected from the provincial Department of Social Development (DSD). Salary information was collected for staff at all levels of programming, and level of effort (LOE) was elicited during interviews with the health or finance staff.

The reporting period was determined using the number of years a project had been implemented, aiming to capture the entirety of the IMs' ongoing project phase. Of the six projects, the periods studied ranged from one year up to four years (Table 2).

² Micro-costing focuses on highly detailed cost inputs. It starts with a detailed inventory and measurement of all inputs consumed in a healthcare intervention. These resources are then converted into values to produce a cost estimate.

³ The ingredients approach involves collecting information on the quantity and prices of all resources used. It is a type of bottom-up costing.

⁴ The expenditure approach is a data collection methodology that uses the total expenditure or budget reports from the government entity or implementing organization. Often retrospective in nature and a type of top-down costing, the expenditure approach typically results in two things: (1) the researcher takes the total cost and divides it by the chosen output measure (gross costing); and/or (2) the researcher goes line by line through the expenditure or budgetary reports and reassigns costs to the chosen cost categories for analysis (micro-costing).

Table 2. Quantitative data collection

	Rwanda	Tanzania	Uganda	South Africa	Zambia	Nigeria
Program name	Turengere Abana	Kizazi Kipya	Better Outcomes	GCBS	ZAMFAM	STEER
Study period	Oct 2015 to May 2017	Oct 2016 to Sept 2017	April 2015 to Sept 2017	Oct 2016 to Sept 2017	Jan 2015 to Dec 2017	Sept 2013 to Sept 2017
	2.7 YEARS	1 YEAR	2.5 YEARS	1 YEAR	2 YEARS	4 YEARS
Type of cost data	Expenditure	Expenditure & budgetary	Budgetary	Expenditure & budgetary	Budgetary	Expenditure
Levels of cost data	1	3	3	4	3	3
Outcome measure	Total served count	OVC_SERV*	Total served count	Total served count	OVC_SERV	Sum of newly enrolled beneficiaries

*USAID reporting indicator

The number of project beneficiaries reached by each OVC program was collected for the reporting period specified for each project (Table 2). Researchers worked with the project and monitoring and evaluation (M&E) staff to collect this information and to understand the context in which it was reported. In several cases, OVC_SERV⁵ data were the only measure available; to obtain annual totals, beneficiary numbers reported for the final quarter of the fiscal year were used, per the USAID Monitoring, Evaluation, and Reporting (MER) Indicators, guidance version 2.2 (OVC Support.org, 2018).

The quantitative data were analyzed using a mix of ABC⁶ and SDCA⁷ to categorize, assign, and allocate program costs (Larson & Wambua, 2011). The aim was to identify intervention costs and assess how these costs aligned with project inputs in the project being assessed. Raw expense data were used when possible. Highly detailed lists of expenditures were reviewed for inclusion in the costs of case management, based on the descriptions provided in the financial reports or through supplemental information obtained during interviews with finance staff. Although we used the 4Children definition of case management to frame the case management process, during data collection and analysis, we found that tracing the costs and contextual information through the 4Children case management process was both challenging and insufficient to describe the data. There were many costs and activities that overlapped steps in the process. Included costs were therefore apportioned to seven main cost centers determined to be most relevant to understanding and describing case management (Figure 2).

⁵ OVC_SERV is a PEPFAR reporting indicator for OVC programs that looks at the number of child and caregiver beneficiaries reached by a project collected quarterly.

⁶ ABC assigns resource costs to cost objects, such as products, services, or customers, based on the activities performed. The primary distinction is in the allocation approach for indirect costs, which is done using personnel time spent on the direct cost centers. The advantage of this approach, as compared with SDCA, is the ability to use personnel interviews to determine the main activities at an organization, an approach that is practical in lower resource settings. ABC can be used in combination with step-down cost accounting.

⁷ SDCA is an analytical approach to calculating unit costs that relies on a step-by-step approach. SDCA is typically broken into six or seven steps that start with defining the question and cost categories, identifying costs, and then assigning and allocating costs to categories.

Figure 2. The cost categories used to describe case management-related costs

Supervision	Direct supervisor salaries Indirect supervisor salaries (supervision cascade)
Training	Case worker case management training costs Staff training case management costs
Transport	Travel costs for supportive supervision Vehicle or motorbike expenses
CW support	CW stipends and materials/supplies Monthly meeting costs Mobile phone/communication costs Printing of case management tools/forms
General personnel	Administrative staff costs
Office costs	Recurrent office expenses Office supply costs
M&E	M&E costs related to case management

Allocations were used to proportionally attribute shared costs to case management. Current values were applied to recurrent inputs and an annualized value to capital inputs. Administrative costs were assessed and allocated based on their relevance to the activity, often using average estimates of personnel’s LOE (ranging from 10% to 33%). Indirect costs were excluded. Volunteer labor was collected but excluded due to challenges with unifying information across the six projects, rendering this exercise a financial cost analysis. This means that the projects that paid CWs had these costs included, whereas projects with volunteers did not. Start-up expenses were included because many of the related activities were linked to the case management process (e.g., recruitment and training of CWs, selection of beneficiaries). These costs were not separated from the rest of the implementation expenses, but instead, grouped in the identified cost categories to which they corresponded. Appendix A provides detailed information on the cost allocation decisions made for each project.

Last, the total amount spent on case management was calculated and compared with the total expenditures for each project. Project beneficiary data were used to calculate the cost per beneficiary (Conteh & Walker, 2004). The proportion of expenditures by cost center was also calculated to help identify the cost drivers. In this report, the total cost and unit costs presented include only financial costs.

An additional analysis was conducted to assess the amount that the projects reported to USAID through the expenditure analysis (EA) process, a standard reporting activity conducted by all recipients of PEPFAR funding. EA data were provided by four of the six projects. When available, the cost of case management at the site level was compared with the total project cost and then annualized.

Ethical Considerations

Research activities for this study adhered strictly to United States and international research ethics guidelines, including the United States Code of Federal Regulations 45 CFR 46 and the Council for International

Organizations of Medical Sciences. Palladium maintains a Federal-wide assurance of protection for “human subjects” with the United States Health and Human Services Office of Human Research Protections. Study investigators sought and gained approval in the United States through the Health Media Lab Institutional Review Board. In-country ethics review was deemed necessary only in Uganda, where The AIDS Support Organization Research Ethics Committee provided approval.

RESULTS

This section provides a detailed description of the six OVC projects and the case management approach implemented by each project, followed by a description of the crosscutting features found to impact case management. The section concludes with the total and unit costs for each project and presents the primary cost drivers related to OVC case management.

Project Features and Case Management Approach

The Turengere Abana project in Rwanda was the simplest and smallest project, with no subawards or civil society organizations (CSOs) involved in the work. The project was also predominately rural. The Kizazi Kipya (Tanzania), STEER (Nigeria), and ZAMFAM (Zambia) projects employed large numbers of CSOs to deliver services and had much higher numbers of reported beneficiaries. These projects also worked in a variety of settings. Uganda's BOCY project used fewer CSOs but was engaged more heavily with the government than the other projects studied. South Africa's GCBS project was an outlier because it focused on capacity building of the South African DSD; all case management delivery was conducted by the government or CSOs employed by the government. Table 3 presents some of the major features of the six projects, which were entirely or partially funded by USAID and PEPFAR.

Table 3. Project features

	Rwanda	Tanzania	Uganda	South Africa	Zambia	Nigeria
Program name	Turengere Abana	Kizazi Kipya	Better Outcomes	GCBS	ZAMFAM	STEER
Program dates	2015–2020	2016–2021	2015–2020	2013–2018	2015–2020	2013–2018
Implementing mechanism	FXB Rwanda	Pact	World Education	Pact	Expanded Church Response	Save the Children
Program structure	No partners/ CSOs	5 partners & 48 CSOs	4 partners & 7 CSOs	3 partners & DSD*	5 partners & 73 CSOs	4 partners & 58 CSOs
Beneficiaries (OVC** & CG***)	16,401	493,743	110,484	215,000	111,569	328,045
Program setting	Rural	Both	Rural	Both	Both	Both

* DSD: Department of Social Development; **OVC: Orphans and vulnerable children; ***CG: Caregiver

Rwanda

Implemented by FXB Rwanda, the project duration is September 2012 to September 2020. The OVC component is entirely funded by USAID. Approximately 28 staff and 163 volunteers contribute to the project's OVC component. Turengere Abana is implemented in 15 sectors across seven districts in the north, east, and south of the country. The project serves 600 to 700 beneficiaries in each sector.

Case management is implemented by volunteer CWs, who are also project beneficiaries. The CWs are directly supervised by FXB staff, called field facilitators. The CWs are selected by peers in their internal savings and lending groups (ISLG). The CWs lead their groups and provide case management for those eligible in their communities. The CWs must be able to read and write. Most CWs have achieved a primary level of education and receive training from their supervisors on a wide range of topics, including how to visit homes, fill out forms, provide referrals, and other case management-related activities. The CWs' training is cascaded so that the only formal training, and related costs, is provided to paid project staff.

The primary differences between Turengere Abana case management and the process definition provided by 4Children are the first few steps. In the definition, identification is supposed to be based on HIV-specific initiatives and enrollment is intended to take place before the first full assessment. The FXB project started before this guidance was issued; therefore, beneficiaries are not enrolled in this way. The use of case plans by the CWs is emphasized more in the 4Children definition than is seen in Rwanda, where the case plans are managed by the CWs' supervisors, who are responsible for working with the CWs to handle issues, follow up with referrals, and liaise with school administrators. The project goes outside the scope of the definition during the identification process, which involves community participation and input, and for graduation, for which several levels of staff are involved, including the team lead for M&E, regional managers, field facilitators, and the CWs.

Uganda

The BOCY project is implemented by World Education/Bantwana, in collaboration with four partner organizations and seven local CSOs. BOCY is a five-year project (2015–2020). It operates in 15 districts in eastern and northern Uganda.

The project has a very well-established case management approach, with one-third of all programmatic efforts going to effective case management. CWs are selected and supervised by the government. Candidates are identified by the local council; they are assessed for their ability to read and write, and the council chooses. They are paid a small stipend and are provided with materials and bicycles.

The case management process differs from the 4Children approach by adding case conferencing as a key component to the cyclical stages of assessment. There is also no explicit monitoring step in the project's case management model. Households are identified via referrals from health facilities. Some beneficiaries were transitioned from the previous project but were rescreened. Moreover, following identification, a team of trained enumerators, not the CWs, visit to determine whether a household meets the criteria for inclusion and to conduct the subsequent enrollment and full assessment. Last, detailed case plans are developed primarily for critical cases, such as sexual abuse, HIV positivity, abandoned children, and critical nutrition cases. The CWs implement the case plans with support from project and government staff. Critical cases are escalated to the child protection system. The project goes outside the 4Children approach in two ways. First, the CWs work alongside two other field-based positions, the community-based trainers and district-based trainers, who focus on economic strengthening and youth groups to further engage in the community. Second, the CWs report directly to government staff.

Tanzania

Kizazi Kipya in Tanzania is the newest project visited, with approximately one year of implementation at the time of data collection. It is a five-year (2016 to 2021) USAID-funded project implemented by Pact, with five partners and 48 CSOs, covering all regions of Tanzania.

The CWs fall into two categories: lead case workers (LCWs) and CWs. Both are recruited by the Department of Social Welfare, with the goal of one LCW per village to serve as the supervisor of the other CWs. The recruitment process involves stakeholder engagement meetings at the county, ward, and community levels. People who apply are interviewed and selected if they come from the village, are under age 55, and can read and write. The CWs and LCWs are paid a small stipend, which is contingent on the completion of their home visits and the necessary paperwork that documents their work. The case management training was done by a collaborating project implemented by John Snow, Inc. (JSI). Training started at the national level and engaged government stakeholders. It was then cascaded to the CSOs and the CWs.

The case management approach is closely aligned with the 4Children process. Beneficiaries are identified through (1) carry over from the previous project phase; (2) referrals from HIV care and treatment centers, or (3) by the CWs. The CWs are responsible for following up potential beneficiaries to conduct screening and enrollment. If an individual or household is eligible, the enrolled family is added to the caseload for that CW. Assessment takes place immediately following enrollment. The care plan is developed after the first assessment to determine the services that are needed. The implementation step also involves referrals, follow up, and regular service delivery that takes place during home visits. Follow-up assessments are supposed to be conducted every three months, which are then used to update the care plan. CW activities are monitored and supervised by CSO staff. Case plan achievement has specific criteria and a six-month hold period between the achievement of these benchmarks and final exit from the project.

South Africa

GCBS was a five-year (2013 to 2018) USAID-funded project implemented by Pact South Africa, in partnership with three international partners. Pact facilitated the integration of HIV prevention and service delivery in the South African DSD, which supports a total of 287 DSD service points/satellite offices and more than 473 nonprofit organizations (NPOs) in eight provinces. Pact worked to improve the government case management package (forms, procedures, and tools), supported training and targeted behavior change HIV activities, and imbedded 86 social workers and 14 social work coordinators in select priority districts.

Because case management delivery is done by the government, the researchers sought to understand the service delivery taking place at the government service points and NPOs. The structure of the government social work program is complicated but can be roughly summarized using four levels: the provincial level, district level, service points, and contracted NPOs. The government DSD service points handle the statutory child protection cases, whereas the NPOs are engaged in HIV prevention activities and home visiting, case management, and psychosocial support. A lot of overlap across government funding streams and units with activities comparable to "traditional" USAID OVC programs is taking place in both the child protection and HIV units of the DSD.

CWs were found at the NPO level and are supervised by NPO staff and social workers or auxiliary social workers. Service points hire only trained social workers capable of dealing with statutory cases. There were

multiple levels of social work supervisors and management staff observed at all four levels of the government. Pact social workers were imbedded to oversee the NPOs in districts where no social workers were present. Enrollment of beneficiaries depended on the setting. NPOs worked in the communities and enrolled those families with children who seemed vulnerable. Engagement with service points relied on statutory involvement. Graduation from services was discussed at several NPOs and often relied on families having their needs met. The case management approach in South Africa was difficult to align with the 4Children process given the wide variation in beneficiary entry and programming in the government system.

Zambia

ZAMFAM is five-year (2015 to 2020) USAID-funded project implemented by Expanded Church Response (ECR), five partners, and 73 CSOs. It aims to strengthen family capacity and community structures to support vulnerable children and improve services for caregivers or children living with HIV. ZAMFAM targets two provinces in the country.

The CWs in ZAMFAM are volunteers recruited through the CSOs, which are often affiliated with local churches. Capacity to read and write is not a requirement, but most CWs are literate and are required to complete a training that provides them with a formal government certificate. The CWs are responsible for assessing households, conducting monthly visits, and referring issues to their supervisors. They also engage in community savings groups, make referrals to government services, and other support areas, such as education, nutrition, etc. The CWs are supervised by community-based organization (CBO) coordinators, who report monthly visit data up to district and then provincial coordinators.

The case management approach is largely similar to the 4Children definition. Beneficiaries are identified through churches and community structures, assessed, and enrolled if they meet the criteria. Case files are started for a family, needs are identified, and support is then provided through home visits, referrals, and one-stop service points. CWs engage in monthly meetings to review performance. OVC are exited based on meeting a variety of needs.

Nigeria

The STEER project was a five-year (2013 to 2018) USAID-funded initiative. When we visited, STEER was in its final year. The project was implemented by Save the Children International with support from four partners and 58 CSOs. STEER initially focused on five states in northern Nigeria but expanded to include Lagos and Cross Rivers.

CWs transitioned from volunteers to community case management workers (CCMWs) the year before data collection. The CCMWs had higher selection criteria, and received a salary payment and increased training. Their positions were advertised by the project and candidates were selected through an interview process. This transition was done to provide a route for increased accountability for the project. The CCMWs continued to come from the communities and were expected to manage approximately 40 households each.

STEER's case management approach was integrated across the main focal areas of social work, nutrition, quality improvement, household economic strengthening, and HIV/tuberculosis. At the community level, households were enrolled through facilities and community leaders. During enrollment, issues in a household were identified and then it was the CW's responsibility to follow up and make sure that the issues were

addressed in a timely way through home visits. CWs were supervised by the CSO staff leading the various focal areas, spreading out the supervision responsibilities across CSO staff and reducing the average CW per direct supervisor. CSO social work leads were responsible for overall reporting by the CWs. STEER had state offices with staff engaged in providing capacity building and supervision to the CSOs. There was limited direct involvement of the government in the case management approach, although the project focused on government capacity building in other areas. Graduation from the project included children having a birth certificate and being in school, caregivers having some economic stability, and the children being healthy, safe, and stable.

Crosscutting Project Features Related to Case Management

When looking across the six projects, we found that IMs varied in their adherence to the 4Children steps, complicating our ability to disaggregate intervention activities among the individual steps. Within these steps, we decided to define several major crosscutting features of OVC case management programs. These crosscutting features provided the contextual information and building blocks for understanding the costs of case management.

- Significant differences in the role and level of government involvement.
- Program structures getting increasingly complex as the projects grew (referred to in this paper as a supervision cascade).
- CW attributes, including education and qualifications, CW and supervisor training, caseloads, and compensation.

These key features are used in the next section to better understand the case management costs as we explore the various typologies and investment decisions the projects made.

Government Involvement

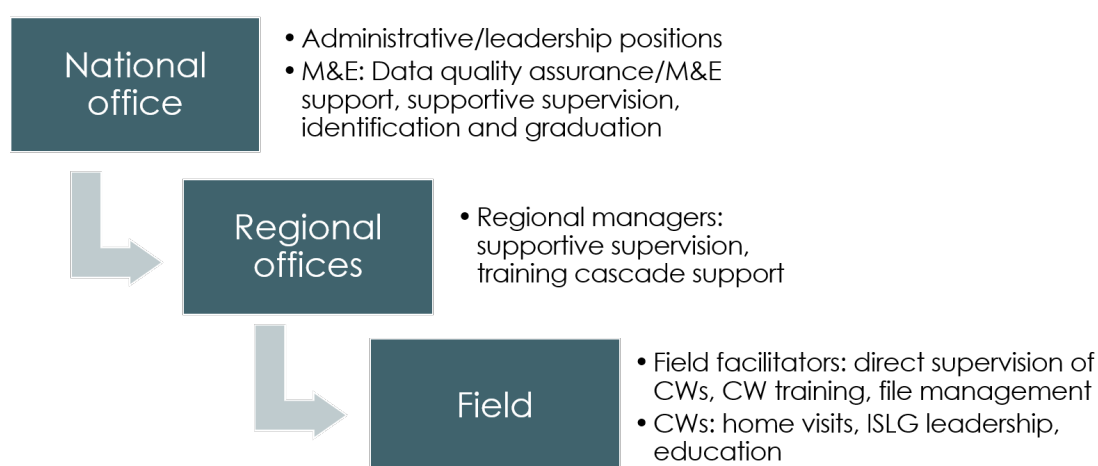
Government involvement in OVC programming was highly specific to the country context and capacity or interest of the local government. We found varying levels of government involvement in the case management process. Some projects had no direct government involvement in case management, as was the case of Nigeria's STEER project, which had only peripheral engagement at higher levels of government. Indirect government involvement was also noted in Rwanda, with local government entities engaged in the first step of the case management process (identification of beneficiaries), and engagement at regional and national levels for obtaining buy-in. More direct government involvement was observed in Tanzania's Kizazi Kipya project, which involved the local government in the selection and training of CWs and working at higher levels on systems change. ZAMFAM had a moderate level of government involvement, with the Department of Social Welfare referring cases to the project for enrollment, the CBOs informally reporting to the Department of Social Welfare through community welfare assistance committees, and many CBO staff and CWs being members of community welfare assistance committees and area coordinating committees. The highest level of government involvement was noted in Uganda, where CWs with the BOCY project reporting directly to government staff, and the national government investing heavily in child protection, with movement toward making CWs a government cadre.

Supervision Cascades

Supervision is a crucial element of OVC programs. Although we found that overall supervision structures were in place, there was great variation in what those structures looked like.

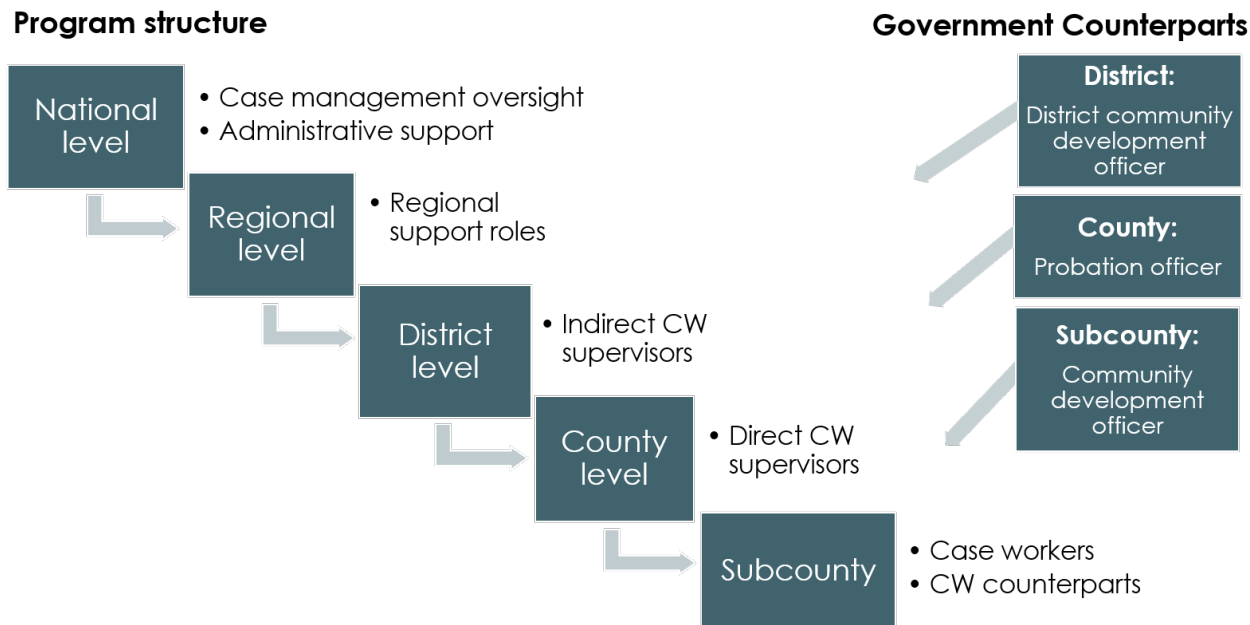
We found three levels of supervision in Rwanda's Turengere Abana project, with supervision taking place in the field by field facilitators who directly oversaw the CWs (Figure 3). This involved supportive home visits, monthly meetings or more frequent contact, and cascading of all training. The field facilitators reported to regional managers who supported the supervision process and cascaded training when the field facilitators had not been trained centrally. The national office had staff who supported this process, informed standard operating procedures and M&E, and supported tool development and implementation.

Figure 3. Rwanda Turengere Abana supervision structure



Conversely, the supervision cascade in Uganda's BOCY project (Figure 4) was much more complicated, with corresponding counterparts at various levels of the government. The number of project staff engaged in the development of standard operating procedures for case management, oversight, and direct or indirect supportive supervision of CWs was also much higher. In addition, the CWs had field-based counterparts engaged in other service areas who worked closely with the same beneficiaries, relying on the home visiting capacity of the CWs and referring new beneficiaries to the CWs. The project was also involved in higher-level systems change at the national level around child protection and a movement to making OVC CWs a government cadre.

Figure 4. Uganda BOCY supervision structure



These two supervision cascades are illustrative. Tanzania had a five-level structure like Uganda, but without the direct government supervisors. Nigeria had four levels of supervision and a unique set up whereby most technical staff at the CSO-level were responsible for sharing CW supervision responsibilities. The supervision cascade in South Africa was too complex to map visually, with three levels of supervision identified at Pact and many supervision levels in the government, including three at the NPOs, two at DSD service points, several at district-level offices, and more at the provincial level.

Case Worker Attributes

Six major content areas are used to describe CW attributes: education and qualifications, supervision, caseload, compensation, training, and tool use. These areas provide rich detail on how the projects are structured and in what they have chosen to invest to support service delivery at the field level (Table 4).

Table 4. Case worker attributes

	Rwanda	Tanzania	Uganda	S. Africa	Zambia	Nigeria
Pay	Unpaid + materials	Stipend \$21.70	Stipend \$5.50 + materials	Gov. salary \$120	Unpaid + materials	Salary \$55
Out-of-pocket expenses	Not reported	\$9.93	Data not available	\$24.03	\$13.11	\$10.02
Education						
Primary (1–7)	8	5	1	0	3	1
J. secondary (8–9)	0	0	3	1	12	0
Secondary (10–12)	2	5	0	4	7	1
Certificate/Assoc.	0	3	1	0	0	6
Bachelors	0	0	0	0	0	2
CW tools	4, Paper	7, Paper	3, Paper	7, Paper	7, Paper	6, Paper
Households average (range)	21.7 (10–30)	18.1 (5–40)	12.2 (8–16)	32.6 (10–53)	9.8 (4–25)	30.9 (26–42)
Beneficiaries average	49.2	39.2	72.2	71.3	22.2	117.2
Supervisor ratio	17.8	88.7	36.0	Not reported	Not reported	4.3
Experience years	1.6	1.1	2.0	3.7	2.8	2.5
Travel time hours per week	1.9	3.4	2.9	6.7	3.6	2.7

Education and Qualifications

The level of education was reported more frequently in select projects, ranging from primary (Rwanda and Zambia) to associate and bachelor’s degrees (Nigeria). All projects required CWs to read and write but only some reported testing CWs on their skills before hiring. As discussed above, the recruitment and selection of CWs were done by the government in three projects (Uganda, Tanzania, South Africa), by peers in one project (Rwanda), and by the project in the other two (Zambia, Nigeria). During interviews with supervisors, lower education levels were sometimes reported as a limiting factor in CW capacity, especially their ability to complete forms. In the STEER project, CW qualifications were altered partway through the project, increasing requirements. The impact is reflected in the high level of education reported by the CWs in this project.

Supervision

We found great variation in the ratio of supervisors to CWs, both within projects (by region or CSO implementer) and across projects, where such data were available. Nigerian supervisors reported carrying the lowest number of CW supervisees at 4.3, and Tanzania had the highest at 88.7. The Tanzania finding represents the high ratio we found in one region, where a single supervisor reported working with 108 CWs. The intermediary supervision role of LCWs may offset the burden reported by supervisors. Where reported, those projects with the highest CW-supervisor ratios also had the lowest average number of households assigned per CW and vice versa.

CWs reported a variety of formal (monthly meetings) and informal (office visits, phone calls) interactions with their supervisors. For supervision to be of high quality, the frequency of contact between supervisees and their

supervisors is important. CWs across projects reported relatively frequent contact with their supervisor or multiple supervisors (in the case of Uganda). This was especially true for informal types of contact, such as phone calls and in-person drop-ins. Formal supervision was monthly in most cases and involved reviewing the case management forms. Supportive supervision, where supervisors accompany their CWs to a home and observe them in action, was also described by most CWs. One CW described the supervision contact in this way:

We have good contact. We communicate by phone. She comes into our community twice or thrice a month. To supervise how efficient we are and to supervise our working. She will follow us to the home visits. — CW, Nigeria

Access to supervisors was reported to be helpful, especially when a case was challenging:

When I need help or I want to ask a question or where he wants to come or sometimes when we have something to do with him. Most of the time when we work with the community, we just communicate with him. All the time. — CW, Tanzania

Caseload

Defining and reporting caseloads were difficult, with CWs and their supervisors commonly using households, children, or other metrics to report caseloads. Overall, when accounting for differences in the reporting approach, we found great variation in the average number of households assigned to CWs. The number ranged from 9.8 households in Zambia to 32.6 in South Africa (Table 4). The average number of beneficiaries that CWs served across their assigned households also differed, with Zambia once again having the lowest average, at 22.2 households, and Nigeria the highest at 117.2. The high number of beneficiaries in Nigeria reflects the large polygamous households found in the Northern state of Kano where data were collected.

The perception of caseloads being burdensome was found among CWs with caseloads above 20 households, and especially among those with caseloads of more than 30 households. Large households, as described above for Nigeria, also contributed. Feeling overburdened was not just related to the number of households, but was also related to the distance and time spent traveling between households and the relative amount of time needed at each household. The reported amount of time spent at each household varied from 30 minutes to 90 minutes, with longer visits needed for more severe or needy cases. The average travel time per week ranged from 1.9 hours in Rwanda to 6.7 hours in South Africa.

It was not as easy [with 36 households]. We had to put more energy and time if we wanted to keep up with the visits. I think 20 households is okay. — CW, Nigeria

She manages the 19 [households], but the distance makes her really tired. — CW, Zambia

These households vary and they require different times. Some might have only two children, while others might have eight. It is really difficult for me to determine a time. In some homes it might take two hours, while in another one it might take around 30 minutes if you don't find problems. — CW, Rwanda

Those CWs with lower caseloads commonly reported higher frequencies of visits compared with those with more households. Those with higher caseloads were often not able to see all their assigned homes in each month and would visit quarterly instead.

Compensation

CW compensation varied across the projects, with three of the six IMs providing either a monthly stipend or salary to CWs, ranging from approximately US\$5.50 to US\$55 (Table 4). The estimated salary reported for the

South African CWs was through the government. Nonmonetary compensation was common, with materials such as bags, pens, recordkeeping books, and even bicycles being provided to CWs in lieu of or in addition to monetary compensation. Some projects also lumped a small transport allowance into the stipend payment (i.e., in Tanzania and Uganda). The compensation provided to CWs was typically used to help cover the costs incurred in their role, such as communication with beneficiaries and supervisors, transportation, and direct support of beneficiaries' needs. The researchers found that compensation did not necessarily change the passion with which services were delivered, but it could increase motivation and allow the CWs who earned income in other ways to dedicate more of their time to the project.

True, [the] quality [of my work] would not change [with an increased stipend]. But it is possible as a married woman that my husband doesn't value what I do. If I was paid, he might see why I do it and also support me. — CW, Rwanda

Yes, more money will allow me to spend more time in the community, now [I spend] time doing other things for income. — CW, Tanzania

The CWs reported less satisfaction with their compensation in situations where they spent a significant amount of time in their role or when they had large out-of-pocket expenses. We found that CWs were often covering the costs of their role using their compensation, ranging from an average of 18 percent of the stipend in Nigeria to 45 percent of the stipend in Tanzania. CWs reported spending on communication, transport, and beneficiary needs. In Zambia, where the CWs are unpaid, US\$13 worth of monthly out-of-pocket expenses were reported. Ugandan CWs reported out-of-pocket expenses but often struggled to quantify the information, which is why that project shows “data unavailable” in Table 4. Only in Rwanda did the CWs not report spending their money on their work. CWs reported that compensation would help cover the costs of their role:

We also put money into transport for case conferencing—you will find that before that you may get food. There is also the time that you have to walk, 40 minutes, and the sun is shining so you will take a boda boda [motorbike] to get there. Communication—when I want to communicate with the parish head, we are not facilitated for that air time [minutes]. We are sacrificing as group leaders. — CW, Uganda

I am sometimes giving the households/families my own money, so they can buy food. — CW, Tanzania

It is also relevant to note that projects with higher compensation also attracted or were able to select CWs with higher education levels.

Training

All projects reported training the CWs and their supervisors, although the content, depth, and mode of delivering training varied. Some projects had more saturation than others on content areas, apart from case management and the use of the case management forms. Training sessions were delivered in three ways:

- **Supervisory approach:** Rwanda's Turengere Abana project relied on direct supervisors to cascade information and training during monthly supervision meetings or one-on-one, when determined necessary.
- **Pre-service approach:** The projects in Tanzania and Zambia used a more formal approach, with either a series of training sessions or a one-time training on case management delivered to the CWs through direct training or cascade approaches.

- **Combination approach:** The remaining three countries used a combination approach, consisting of formal training-of-trainers, in addition to follow-up training at monthly meetings or through supportive supervision.

In-service training was reported as highly valued by CWs in most projects:

[Before] at the monthly meeting they only took our forms and gave us encouragement. But now every monthly meeting we must have a training. So that is a great change that they have got. . . Now the capacity and my knowledge is well improved.

— CW, Nigeria

I cannot think of [additional] needed trainings but [there is] always room for more. With [policy/procedure] changes, it is important for updates. — CW, Rwanda

Tool Use

Although we attempted to sample for both paper-based and mobile-based tools, all IMs included in the study used paper-based tools exclusively. The costs of printing the tools were described in interviews with each IM, with the number of tools used by CWs ranging from three forms in Uganda to seven forms in Tanzania, South Africa, and Zambia (Table 4). CWs and their supervisors reported challenges with the paper forms, including the cost of printing, the number and complexity of the forms, the burden of carrying them, and using them during a home visit. Most CWs preferred to fill out the forms later, something that supervisors worried led to under reporting of services delivered. Most CWs reported the need for refresher training on the tools, frequent supportive supervision, and thorough M&E support for tool implementation.

Cost Analysis Results

The cost per beneficiary across the six IMs included in the study ranged from US\$9.77 in South Africa to US\$50.41 in Zambia (Table 5). A large proportion of overall project expenditures could be attributed to case management (22% to 55%), except for South Africa’s GCBS project (15%). The cost breakdown by category ranged from a low of 1.2 percent for CW support in Rwanda to a high of 56.8 percent on training in Tanzania. The distribution of expenditures by category reflected the specific features, structure, and approaches to case management found in each project. Three cost categories were consistently related to spending: supervision, training, and administrative personnel.

Table 5. Total annual case management expenditures and cost per beneficiary

	Rwanda	Tanzania	Uganda	S. Africa	Zambia	Nigeria
Annual cost of case management	\$134,489	\$7,886,315	\$2,093,697	\$2,099,808	\$2,812,034	\$1,782,441
Beneficiaries	16,401	493,743	110,484	215,000	111,569	328,045
Cost per beneficiary of case management	\$21.96	\$15.97	\$47.38	\$9.77	\$50.41	\$21.73
Proportion of total expenditures	22%	41%	55%	15%	22%	33%
Cost breakdown:						
Supervision	44.7%	5.1%	10.4%	32.0%	16.5%	34.6%
Training	8.9%	56.8%	8.4%	5.7%	32.9%	5.5%
Transportation	22.4%	5.5%	5.4%	2.4%	4.9%	4.0%
CW support	1.2%	14.0%	35.6%	3.0%	14.2%	19.4%
General personnel	21.2%	11.9%	25.2%	35.4%	22.3%	27.7%
Office support	1.1%	6.3%	10.2%	3.5%	3.0%	6.5%
M&E	0.5%	0.4%	4.8%	17.9%	6.3%	2.3%

Rwanda

The total cost of case management for the 2.7 years of the Rwanda project’s implementation was US\$360,120, which averages to US\$134,489 annually (Table 5). This constitutes 22 percent of Turengere Abana’s total OVC program costs. With 16,401 caregivers and OVCs served by the project over the course of 2.7 years, the cost per beneficiary comes to US\$21.96. This cost does not account for the opportunity cost of CW time and labor, donated village office spaces, and any out-of-pocket expenses the CWs incurred for cell phone use or travel. By contrast, annual case management costs reported to USAID for the same period were approximately US\$9,758, or 1.4 percent of total project expenditures (data not shown).

The costs of Turengere Abana’s case management were heavily driven by the supervision cascade and staffing to oversee, support, and provide on-the-job training to the CWs (44.7%). The other major cost driver was transportation-related costs (22.4%) because field facilitators are provided motorbikes and regional managers use vehicles to get to the various field offices and local communities. Turengere Abana has done a lot of in-service training for paid project staff over the life of the project. Training costs determined to be related to case management were on beneficiary selection criteria and tailoring services to needs, FXB’s data collection tools, and conducting meetings and managing the CWs (8.9%). CW support, a category intended to capture the costs of CW stipends, printing of household visit and other case management forms, monthly meetings, CW transportation, and communication constituted a small percentage of case management-related expenses (1.2%). The other cost categories were largely composed of allocated costs for general personnel (21.2%), office support (1.1%) and M&E (0.5%).

Case Management Typology (see Table 6):

- Low training and CW costs
- Moderate transportation costs
- High supervision costs

Tanzania

The total cost of case management for one year of programming for the Kizazi Kipya project was the most expensive of all projects, at approximately US\$8 million. With 493,743 caregivers and OVCs served during this time, the cost per beneficiary came to US\$15.97 (Table 5). The low cost per beneficiary and high annual cost were primarily due to the project's scale, which was the largest of the six projects in terms of beneficiaries reached. The cost per beneficiary does not account for the opportunity cost of government staff time spent on training and CW selection, or any out-of-pocket expenses incurred by project staff or CWs.

Training drove the largest proportion of the costs (56.8%) due to the large-scale pre-service training implemented during the first year by Pact and JSI. These training costs were linked to the high proportion of total project expenditures contributing to case management (41%). Other cost drivers were CW support (14.0%), which reflects the large relative cost of CW stipends dispersed at the CSO level. The Tanzania project had a notably low proportion of spending on supervision (5.1%) and M&E (0.4%), and moderate spending on general personnel (11.9%) and office support (6.3%) attributable to case management. Appendix C has a more detailed breakdown of the various elements that were compiled in each of these categories. It also presents the funding by level. The most striking aspect of the cost breakdown in Tanzania was the high investment in training coming from JSI.

Case management typology (see Table 6):

- Low supervision and transportation costs
- Moderate CW costs
- High training (pre-service) costs

Uganda

The total cost of case management for all 2.5 years of project implementation was US\$5.2 million, averaging US\$2,093,697 annually (Table 5). Uganda's BOCY project had the largest proportion of total project costs contributing to case management (55%), a factor related to the high cost per beneficiary (US\$47.38). This was due to the large number of staff who supported case management. The BOCY case management model was very well developed and was heavily emphasized throughout programming. The supervision cascade and direct involvement of government staff in case management were also the most advanced compared with the other projects. The cost of direct CW support was 35.6 percent of case management-related costs, the highest of all projects, with spending on CW stipends, communication, meetings, and other support. The second largest driver of case management-related costs was general personnel (25.2%), a feature related to the high overall estimate of staff LOE spent on case management (and therefore attributed to the proportion of support staff time allocated to case management). Moderate spending was observed on supervision (10.4%), training (8.4%), office support (10.2%), and M&E (4.8%) related to case management. The annual cost of case management

reported to USAID for the same period was approximately US\$413,576 or 19 percent of total expenditures (data not shown).

Case Management Typology (see Table 6):

- Low training and transportation costs
- Moderate supervision costs
- High CW support costs

South Africa

The total cost of case management for the one year of South Africa's GCBS project implementation averaged US\$2,099,808 (Table 5). GCBS had the lowest proportion of total expenses determined to be related to case management (15%) because the researchers found that most field-based service delivery was paid for by the South African government. The low cost per beneficiary (US\$9.77) was related to this, as was the high number of beneficiaries reported to have been reached compared with the amount of project activities determined to be directly linked to case management. As a capacity-building program, most of the costs were general staffing costs (35.4%). The project also had no direct CW supervision costs and very limited CW support costs (3.0%). Supervision costs (32.0%) were for Pact staff indirectly involved in case management delivery capacity building or support from certified social workers to NPOs funded by the government. When we attempted to collect the costs of case management implementation housed in the government, we found that the additional cost per beneficiary in Gauteng province for the South African fiscal year 2016–2017 was US\$203.11. The annual case management costs reported to USAID were approximately US\$2,809,505 or 30 percent of total GCBS expenditures (data not shown).

Case Management Typology (see Table 6):

- Low training, transportation, and CW support costs
- High supervision (indirect) costs

Zambia

Zambia's ZAMFAM project invested large amounts in CW training (32.9%) and general personnel not involved directly in supervising the CWs (22.3%), driving the proportion of costs spent in these areas (Table 5). Case management costs constituted approximately 22 percent of total project costs, the same as in Rwanda, but there appeared to be a more even distribution of case management costs across the main cost categories. ZAMFAM had the highest cost per beneficiary, at US\$50.41. Qualitative data indicated that despite such a high cost per beneficiary, ZAMFAM had yet to graduate any beneficiaries and was struggling to increase the resiliency of families enrolled in the OVC program.

Case Management Typology (see Table 6):

- Low transportation costs
- Moderate supervision and CW support costs
- High training costs

Nigeria

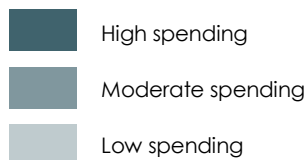
In Nigeria’s STEER project, 33 percent of project costs contributed to case management, and the cost per beneficiary was very similar to Rwanda’s project (US\$21.73) (Table 5). STEER had an extensive supervision cascade, with most CSO staff involved in some way with CW supervision (34.6%). Due to the CW stipends, CW support costs constituted 19.4 percent of case management costs, which were the highest of all projects, excluding South Africa, where CWs were compensated by the government. Like Uganda, Nigeria also had high estimates on staff LOE related to case management, contributing to the high general personnel costs (27.7%). The project also had noticeably lower costs attributable to case management training (5.5%). The annual cost of case management reported to USAID for two of the four years was approximately US\$545,347 or 11 percent of total expenditures (data not shown).

Case Management Typology (see Table 6):

- Low training and transportation costs
- High supervision and CW support costs

Table 6. Heat map of case management spending, by category (typologies)

Country	Supervision	Training	Transportation	CW support	General personnel	Office support	M&E
Rwanda	High spending	Low spending	Moderate spending	Low spending	Moderate spending	Low spending	Low spending
Tanzania	Low spending	High spending	Low spending	Moderate spending	Low spending	Moderate spending	Low spending
Uganda	Moderate spending	Low spending	Low spending	High spending	High spending	Moderate spending	Low spending
S. Africa	High spending	Low spending	Low spending	Low spending	High spending	Low spending	Moderate spending
Zambia	Moderate spending	High spending	Low spending	Moderate spending	Moderate spending	Low spending	Low spending
Nigeria	High spending	Low spending	Low spending	High spending	High spending	Low spending	Low spending



DISCUSSION

Similar to other studies on the costs of OVC programs, we found wide variation in the annual cost of case management, cost per beneficiary, the proportion of total expenditures spent on case management in each project, and the relative distribution in spending by cost category (Santa-Ana-Tellez, DeMaria, & Galarraga, 2011).

A large driver of case management costs identified across the six projects was staff time. We found that case management was viewed as an integral part of OVC programs but that staff in every project were challenged to define related costs and activities. In interviews, staff often provided quite high estimates for the time they spent on case management, likely due to the high value they placed on case management as a component of the OVC program. This was true even for staff working peripherally on case management delivery itself. In the breakdowns provided for each project, staff labor was found in the category of supervision and general personnel. Combining these two categories for each project highlights the large proportion of cost that staff time contributed to case management. Staff estimates of time were also used by researchers to help estimate allocations for more general expenses, such as office costs, and allocating capital costs, such as vehicles or other transportation costs to travel. We believe that the high estimates of staff time spent on case management highlights the innate nature of OVC case management as a process driven by people's effort.

- Variations in:**
- Annualized case management costs
 - Cost per beneficiary
 - Proportion of total expenditures
 - Relative distribution by element

By contrast to staff time, case management investments in training and CW-specific support were highly inconsistent across the six projects. The cost of case management-specific training was easier to identify in the newer projects, like Tanzania and Zambia, where targeted, pre-service training was done with all involved in the case management process (whether project staff, CWs, or government personnel). The benefit of upfront investments in training versus ongoing in-service training could not be assessed in this activity, given the wide variation in spending on these two categories. Projects like Rwanda and Nigeria had less readily identifiable costs linked to training, meaning that related costs were more likely to be wrapped up in investments in supervision as the route to providing in-service training.

CW support spending often included the printing of tools, meetings, and stipends. CW compensation was a moderate proportion of the amount spent on staffing overall. Investments in CWs with higher levels of education, like in Nigeria, may result in higher overall capacity and quality, something this research was unable to fully explore. CWs reported out-of-pocket expenses that they drew from their stipends, often constituting a large share of the amount they received. In discussions with the CWs, satisfaction with their caseloads and compensation appeared holistically linked to overall time commitment, including travel, visits, and paperwork. Regardless of CW drive and total time demands, higher compensation was stated as motivating for most CWs, a finding supported by other research (Witcoff and Crigler, 2010; Visagie and Pillay, 2017).

A major way that OVC programs attempt to cost save is through the employment of CWs who receive either no or small amounts of money for their time. Constituting the largest cadre of staff in every project, CWs are often expected to spend large amounts of time working in exchange for training, material benefits, and small monetary stipends. Although some CWs reported being grateful for the training and opportunity to serve their communities, most also reported the benefits that increased compensation would have on their ability to

commit. Increased pay might also attract people with higher levels of education, a factor that could be beneficial but might also mean that personnel are less linked to the local community, a primary advantage of OVC programming.

We also attempted to explore CW perceptions of caseload burden and the impact caseloads have on the quality of service provision. CW caseloads are known to influence the quality of services provided in community-based programs (Jaskiewicz & Tulenko, 2012). We found that most CWs reported being over-burdened when they had more than 20 households. Given the wide variation in direct beneficiaries often found per household, beneficiaries per household should also be considered. In projects like in Tanzania, where one region had extremely low ratios of beneficiaries to CWs, the ratios of CWs to supervisors was high. The opposite appeared true in Nigeria. This is an interesting relationship to consider that is most likely related to resource allocation and distribution. When making recommendations about CW caseloads, it is important that policymakers and implementors also consider the ratio of CWs to their supervisors because we found that in terms of CW capacity, especially in situations where they were unpaid or had lower levels of education, the supervisor’s support was imperative. The amount of time that CWs reported spending in transit when conducting home visits should also be considered because overall satisfaction and perceived personal capacity among CWs were often moderated by the total time demanded of them, whether it was spent in travel or at households. Although we cannot concretely argue that increased project expenditure on CW support specifically increases the quality of case management, exploration of this issue should be considered in future research.

Based on what was observed in both the qualitative and quantitative data, we diagrammed the major features that appeared related to the delivery of high-quality case management (Figure 5). Capacity of the CSOs and the CWs appeared related to a range of factors. These factors can be linked to the investments that the projects chose to make.

Figure 5. Aspects of the case management structure that affect quality



Resource planning and budgeting require accurate estimations of interventions and cost per beneficiary. A major finding of this study identified during the data collection process was the IMs’ limitations in reporting costs as they relate to program strategies or activities. This is evident when comparing the cost of case management found in this study with that reported through the EA to USAID by four of the projects.

Rwanda dramatically underestimated the cost of case management, whereas the South Africa project overestimated it. This highlights the challenge that IMs face when mapping project costs, especially those related to case management. Standardized rubrics for what costs to include and how to estimate staff LOE could improve these estimates.

The contextual information provided by the qualitative data also helped bolster and support the cost estimates found in this study. Specifically, using mixed methods enabled us to better map project activities and their related costs. The categories chosen to describe case management did not align with typical cost elements, instead, they characterized key crosscutting features of the case management process that emerged through the interviews and became clearer as we visited and learned more about the projects. Interviews with staff engaged at every level of programming also increased our understanding of who was responsible for what, how activities were linked, and what costs should be attributed to the activities. Without the parallel approach of collecting both quantitative and qualitative data, we would have found lower case management costs because a large proportion of the expenditures were not captured explicitly in the financial records of the IMs, instead, they were identified and allocated using the qualitative data. The contextual information also helped increase the validity of the results, by better enabling the research team to describe and understand the cost analysis findings.

As priorities shift to transitioning OVC programming and case management from international donors to national entities and local implementing partners, it is imperative that stakeholders work to support similar strategic objectives that prioritize cost-effective services. The varying levels with which each project involved the government had significant cost implications that were often not recorded by the projects. The actual value of government contributions to the projects, although not fully assessed in this study, is an important component for understanding the true economic cost of OVC programs.

In general, the wide variations in both the features of case management and the related costs highlighted the need for activity-based budgeting in OVC programs. Previous research has described the methodological approach needed to look at OVC activities more generally (Larson & Wambua, 2011). This study took this method a step further, showing that it is not only possible to break down the costs of OVC programs by program area, but that there is a lot to learn when such an approach is taken. Repeating these methods is feasible, but increasing the depth and capacity of the existing financial reporting systems in OVC programs would make the process easier.

Activity-based budgeting is not an official mixed-methods approach to costing; it relies heavily on interviews to identify the allocations of costs (Waters, Abdallah, & Santillán, 2001). Building activity or intervention-based cost codes into existing program financial systems has been suggested previously for OVC programs (Larson & Wambua, 2011). Our findings support this recommendation and help to establish the major cost categories that could be used to break out case management-specific costs in a comprehensive way. The application of staff LOE proportional to programming may not be feasible in existing financial management systems, such as QuickBooks, but existing systems could easily be modified to track routine expenditures. When applying general ledger (GL) codes to specific costs, additional designations could be made to link these costs to cost centers that are more in line with actual activities instead of just traditional accounting codes. This type of effort would need to be invested in at the start of an OVC program to be successful; it would also require training of financial staff on how to link costs to activities. This approach would be highly beneficial because it would allow programs to monitor their costs, not just by more traditional cost elements like labor, travel, or

capital, but to map them to their related program activities. As PEPFAR moves toward IM budgets by program area, strategic objective, approach, and geography, the capacity to track cost data that better aligns with program budgets would be very useful for resource allocation and cost saving decision making. Moreover, in the context of transitioning to national entities (USAID and PEPFAR's Journey to Self-Reliance), this supplementary information on the cost of intervention components would greatly improve allocative efficiency and bolster decision making.

This research and its results are not intended to provide generalizable cost estimates for OVC programs. The researchers firmly believe that the qualitative data were very useful for exploring and categorizing the cost data, and yet, the integration of the qualitative component in determining cost categories and identifying case management-specific costs may have limited the replicability of these cost analysis exercises. The cost assessments also relied on the quality of pre-existing financial records and data. Last, it is important to remember that cost analysis findings are only one piece of the puzzle for determining the efficiency of an intervention. Cost analyses are often insufficient for gauging impact or quality.

RECOMMENDATIONS

The results allow us to make statements about intervention efficiency, focusing both on technical and allocative efficiency. We have quantitative cost information that is made more robust by the contextualizing qualitative data. This allows us to paint a picture as to whether the projects are making strategic decisions about their resources and to develop typologies of case management approaches. However, we did not explore the contribution of outcomes or a counterfactual to go beyond the partial economic evaluation. The following recommendations are offered:

- Donor support to expand IMs' capacity to track costs by activity in their existing financial management systems is needed. The development of standardized rubrics for what costs to include and how to estimate staff LOE could improve these efforts.
- CW stipends or compensation should be reviewed to ensure that they better cover CWs' out-of-pocket expenses, especially for transportation, communication, and emergency cases.
- The caseloads of OVC CWs should be limited, with limits including caveats related to compensation and the total time required to visit homes. Caseloads should be considered in their individual country contexts.
- Full economic evaluation methods, such as cost-effectiveness analysis, may be able to build on this research to better assess efficiency and quality.
- Further research assessing the quality of OVC case management is needed. What contributes to the delivery of high-quality services in the field?

REFERENCES

- Bamberger, M., Rugh, J., & Mabry, S. (2006). *Real world evaluation: Working under budget, time, data and political constraints*. Thousand Oaks, CA: Sage Publications, Inc.
- Beebe, J. (2001). *Rapid assessment process: An introduction*. Walnut Creek: AltaMira Press.
- Byford, S., & Sefton, T. (2003). Economic evaluations of complex health and social care interventions. *National Institute of Economic Review*, 186(1) 98–108. Retrieved from <https://journals.sagepub.com/doi/abs/10.1177/002795010300100114>.
- Catholic Relief Services. (2017, June 13). Case management in OVC programming. Retrieved from <https://www.crs.org/our-work-overseas/research-publications/case-management-children-orphaned-or-made-vulnerable-hiv>.
- Center for Global Development. (2018, August 9). PEPFAR's new targets for local implementation: Commendable in theory, complicated in practice. Retrieved from <https://www.cgdev.org/blog/pepfars-new-targets-local-implementation-commendable-theory-complicated-practice>.
- Conteh, L., & Walker, D. (2004). Cost and unit cost calculations using step-down accounting. *Health Policy and Planning*, 19(2), 127–35. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/14982891>.
- Corbin, J., & Strauss, A. (2014). *Basics of qualitative research: Techniques and procedures for developing grounded theory*, Fourth edition. Thousand Oaks, CA: Sage Publications, Inc.
- Hsieh H., and Shannon S.E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, 15(9), 1277–88. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/16204405>.
- Jaskiewicz, W., & Tulenko, K. (2012). Increasing community health worker productivity and effectiveness: A review of the influence of the work environment. *Human Resources for Health*, 10, 38. Retrieved from <https://human-resources-health.biomedcentral.com/articles/10.1186/1478-4491-10-38>.
- Larson, B.A., & Wambua, N. (2011). How to calculate the annual costs of NGO-implemented programmes to support orphans and vulnerable children: A six-step approach. *Journal of the International AIDS Society*, 14, 59. Retrieved from <https://jiasociety.biomedcentral.com/articles/10.1186/1758-2652-14-59>.
- Mwai, G.W., Mburu, G., Torpey, K., Frost, P., Ford, N., & Seeley J. (2013). Role and outcomes of community health workers in HIV care in sub-Saharan Africa: A systematic review. *Journal of the International AIDS Society*, 16, 18586. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/24029015>.
- OVC Support.org. (2018, January 29). Monitoring, evaluation and reporting (MER 2.0) indicator reference guide, updated release, Version 2.2. Retrieved from <https://ovcsupport.org/resource/monitoring-evaluation-and-reporting-mer-2-0-indicator-reference-guide-updated-release-version-2-2/>.
- Perry, H.B., Zulliger, R., & Rogers, M.M. (2014). Community health workers in low-, middle-, and high-income countries: An overview of their history, recent evolution, and current effectiveness. *Annual Review of Public Health*, 35, 399–421. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/24387091>.

Santa-Ana-Tellez, Y., DeMaria, L.M., & Galárraga, O. (2011). Costs of interventions for AIDS orphans and vulnerable children. *Tropical Medicine and International Health*, 16(11), 1417–1426. Retrieved from <https://europepmc.org/abstract/med/21859439>.

Stover, J., Bollinger, L., Walker, N., & Monasch, R. (2007). Resource needs to support orphans and vulnerable children in sub-Saharan Africa. *Health Policy and Planning*, 22(1), 21–27. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/17237491>.

United States Agency for International Development (USAID). (2017, April 13). What we do: Orphans and vulnerable children. Retrieved from <https://www.usaid.gov/what-we-do/global-health/hiv-and-aids/technical-areas/orphans-and-vulnerable-children>.

United States President's Emergency Plan for AIDS Relief (PEPFAR). (2012, July). Guidance for orphans and vulnerable children programming. Washington, DC, USA: PEPFAR. Retrieved from <https://www.pepfar.gov/documents/organization/195702.pdf>.

United States President's Emergency Plan for AIDS Relief (PEPFAR). (2015). Technical considerations provided by PEPFAR Technical Working Groups for 2015 COPS and ROPS: Orphans and vulnerable children. Washington, DC, USA: PEPFAR.

Visagie, B.B., & Pillay, J. (2017). Needs and challenges of lay community health workers in a palliative care environment for orphans and vulnerable children. *Health SA Gesondheid*, 22, 333–341. Retrieved from <https://www.popline.org/node/675288>.

Waters, H., Abdallah, H., & Santillán, D. (2001). Application of activity-based costing (ABC) for a Peruvian NGO healthcare provider. *International Journal of Health Planning and Management*, 16(1), 3–18. Retrieved from <https://doi.org/10.1002/hpm.606>.

Witcoff, A., & Crigler, L. (2010). Measuring engagement of community health workers to improve productivity, retention, and quality of care. Retrieved from https://www.usaidassist.org/sites/assist/files/witcoff_abstract_755.00_chw_engagement_ethiopia_a4.pdf.

APPENDIX A. COST ANALYSIS DETAILS

The following details are for those who want to know more about how we got the numbers presented in this document. Enjoy! Questions on the methodology may be addressed to the main authors.

Inclusion and Exclusion Criteria for Case Management Costs

The inclusion criteria varied for each project based on its structure and implementation approach. Below is a basic summary of what we looked for when determining whether to include, exclude, or proportionally allocate project costs to case management.

Costs Included in Case Management

- Staff time, proportional to the estimated time each person contributes to case management
- Fuel/vehicle/mileage costs, if related to a CW or his/her supervisor's transportation
- Fuel/vehicle/mileage costs, if related to supportive supervision for case management
- Costs of beneficiary identification, selection, or enrollment
- Training on case management or M&E forms and data quality; could include CW training, staff training, and government counterpart training, when applicable
- M&E costs, such as printing costs for forms used in the field
- Proportion of office costs/equipment/administrative support, determined by average staff contributions to case management

Costs Excluded from Case Management

- Costs related to OVC intervention areas other than case management, i.e., student education support (e.g., school fees, uniform, and book support), income-generating support and microloans, direct subsistence support
- Costs of non-OVC programming, if applicable
- Training on program-specific topic areas (e.g., income-generating activities, ISLGs)
- Costs clearly unrelated to program implementation (e.g., audits)
- Travel and transport from the national office (unrelated to case management)
- Indirect or United States-based home office costs
- Cost share for time of government staff

Cost Analysis Parameters & Allocation Decisions, by Project

1. RWANDA: Turengere Abana Project

Study Time Period	October 2015 to May 2017
Type of Costs	Financial costs derived from project expenditure data
Line Items Analyzed	1231 from FXB After review, 777 line items were included in whole or in part in the costs of case management and subsequently assigned to a cost center
Currency Conversion	All data were provided in US\$
Output Measure	Total beneficiaries served during study time period; includes caregivers and OVCs: 16,401
Allocation Decisions	<p>Expense data were used when possible. When not available or when costs were shared with case management, the allocations given below were used. They were determined by staff interview or by researcher discretion.</p> <ul style="list-style-type: none"> • Staffing: <ul style="list-style-type: none"> ○ Direct supervision role, 96 percent ○ Indirect supervision role, 65 percent ○ M&E staff, 50 percent *because it supported parts of the case management process ○ Drivers, 65 percent ○ Administrative staff (finance, grants, other non-technical administrative support staff), 30 percent *based on financial manager recommendation ○ Fringe, 9 percent * based on raw data • Vehicles (used by supervisory cascade), 65 percent determined by indirect supervision time, not discounted • Motorbikes used by supervisors, 100 percent, determined by direct supervision allocation, not discounted • Administrative costs, 15 percent (used one-half of the 30% assumed for administrative staff)

2. TANZANIA: Kizazi Kipya Project

Study Time Period	October 2016 to September 2017
Type of Costs	Expenditure data for Pact, five partners, and 48 CSOs Budgetary data for JSI
Line Items Analyzed	27,837 from HQ and partners 4,984 from CSOs 21 from JSI budget In the context of such a large volume for HQ and partner data, pivot tables by GL code were used to consolidate the information. Allocations and assignments to cost centers were made from these tables. CSO data were organized into searchable tables and wide varieties of key word searches of cost descriptions and existing GL codes related to each cost center were used to identify and assign costs. Following review, a total of 3,068 CSO line items were included in the costs of case management. Pivot tables were then used to consolidate this information and cross-check the totals to ensure that every line item was assigned to a cost center. Allocations were then done using these pivot tables. Data from all three levels were then extracted and consolidated by cost area in a summary table.
Output Measure	Sum of the quarter 4 beneficiaries (per PEPFAR guidance on OVC_SERV, MER 2.0)
Currency Conversion	2180 Tanzanian Shilling to US\$1, average conversion rate used in JSI budget documents Conversion rate was used for JSI budget data and CSO payment liquidation data
Allocation Decisions	Expense data were used when possible. When not available or when costs were shared with case management, the allocations given below were used. They were determined by staff interview or by researcher discretion. <ul style="list-style-type: none"> • Staffing: <ul style="list-style-type: none"> ○ Direct supervision role, 100 percent ○ Indirect supervision role, Not available ○ CSO, all staff (excluding supervisors), 25 percent ○ HQ staff, 22 percent ○ State office staff, 80 percent ○ M&E staff, 10 percent at HQ, part of staff salaries at CSO ○ Drivers, 20 percent ○ Administrative staff, 10 percent to 20 percent *based on interview and researcher discretion ○ Fringe, 22 percent • Training costs, 35 percent from HQ, 100 percent from JSI • Vehicles and travel costs, 20 percent for HQ, 50 percent for CSOs • Other M&E costs, 25 percent • Subawards, 34 percent *based on average proportion of costs allocated to case management at the CSOs, used to allocated CSO expense data for which highly detailed cost data were unavailable • Administrative non-staff costs, 25 percent at CSO based on staff LOE, 10 percent at HQ (based on determination of the researcher and the perceived distance of the HQ office from case management delivery)

3. UGANDA: Better Outcomes for Children and Youth Project

Study Time Period	April 2015 to September 2017
Type of Costs	Budgetary data from World Education, nine partners, seven CSOs
Line Items Analyzed	193 from all levels After review, 123 line items were included in whole or in part in the costs of case management and subsequently assigned to a cost center. Data were then consolidated by cost area in a summary table.
Output Measure	Direct count of the number beneficiaries served
Currency Conversion	3500 Ugandan Shilling to US\$1
Allocation Decisions	<p>No raw expense data were used for Uganda. Instead, budget line items were reviewed for inclusion in the costs of case management and then grouped accordingly. When costs were shared with case management, the allocations given below were used. They were determined by staff interview or by researcher discretion.</p> <ul style="list-style-type: none"> • Staffing: <ul style="list-style-type: none"> ○ Direct supervision role, 100 percent ○ Indirect supervision role, 60 percent ○ M&E staff, 60 percent ○ Drivers, 33 percent ○ Administrative staff, 33 percent *based on financial manager input ○ Fringe, 35 percent *based on financial manager input • Training costs: <ul style="list-style-type: none"> ○ Case management training of trainer costs, 100 percent ○ All other training, 33 percent • Vehicles, 33 percent • Other M&E costs, 33 percent • Subawards, 33 percent • Consultancies, 33 percent • Administrative costs, 33 percent

4. SOUTH AFRICA: Government Capacity Building Support Project

Study Time Period	October 2016 to September 2017
Types of Costs	Expenditure and budgetary data from Pact Annual report expenditure data for DSD Gauteng Province Expense data from Bojanala District in the Northwest Province
Line Items Analyzed	526 line items were reviewed from various Pact financial documents 124 line items from Gauteng Province DSD* 750 line items Bojanala District DSD* Pact data items were reviewed and allocated to case management on an individual basis. Supporting documentation on events, travel expenses, and staff LOE were used to determine allocation decisions. *For more details on the analysis of government data, please contact the researchers.
Currency Conversion	13.2 South African Rand to US\$1, found in Pact files
Output Measure	OVC_SERV Reach
Allocation Decisions	Expense data were used when possible. Budgetary data were allocated using raw expense data reviewed for case management costs (events/travel/training); staff costs were allocated using a percentage determined by staff contributions to component areas, data which were provided to the researchers. LOE was therefore not determined based on interviews for this project. <ul style="list-style-type: none"> • Staffing: <ul style="list-style-type: none"> ○ Direct supervision role, Not available ○ Indirect supervision role, Not available ○ HQ technical and administrative staff, 24 percent *based on staff LOE average ○ Local technical and administrative staff, 19 percent *based on staff LOE average ○ Fringe, 19 percent or 24 percent based on groupings above • Training costs, used expense data; where unable, used average of 34 percent • Travel, used expense data; where unable, used average of 23 percent • Other M&E costs, 48 percent *related to printing costs • Subawards, 12 percent *derived from proportion of costs from subawards for time period determined to be related to case management • Administrative costs, 22 percent *based on average staff LOE
Analysis of DSD Expenditure data	DSD services data INCLUDED: * Social Welfare Services: subprogram of HIV and AIDS (100%) * Management costs: proportional to the allocated costs for Social Welfare Services and Children and Families DSD services and costs EXCLUDED: * Social welfare services subprograms on services to older persons, services to persons with disabilities, and social relief * Children and Families Subprogram: subprogram on Care and Services to Families, Child Care and Protection, ECD and Partial Care, Community-Based Care Services for Children, Child and youth care centers

	<ul style="list-style-type: none"> * Restorative Services Program (all subprograms) * Development and Research (all subprograms)
--	--

5. ZAMBIA: Zambia Family Project

Study Time Period	January 2015 to December 2017
Types of Costs	Budgetary data for ECR, three partners, and 73 CSOs
Line Items Analyzed	<p>331 from HQ</p> <p>400 from partners</p> <p>163 from CSOs</p>
Currency Conversion	6.1 Zambian kwacha to US\$1, taken from conversion rates in ECR files
Output Measure	Direct count of the number beneficiaries served
Allocation Decisions	<p>No raw expense data were used for Zambia. Instead, budget line items were reviewed for inclusion in the costs of case management and then grouped accordingly. When costs were shared with case management, the allocations given below were used. They were determined by staff interview or by researcher discretion.</p> <ul style="list-style-type: none"> • Staffing: <ul style="list-style-type: none"> ○ Direct supervision role, 100 percent ○ Indirect supervision role, 75 percent ○ M&E staff, 50 percent ○ Administrative staff, 10 percent to 20 percent ○ Fringe, 20 percent • Training costs, used budget data at HQ, 27 percent for CSOs based on review of training list • Travel costs, used budget data • Other M&E costs, 75 percent • Consultancies, 20 percent • Administrative costs, 20 percent at HQ, 25 percent at CSOs

6. NIGERIA: STEER Project

Study Time Period	September 2013 to September 2017
Types of Costs	Expenditure data from Save the Children, two partners, and 58 CSOs
Line Items Analyzed	<p>25,512 from HQ 178 from partners 27,876 from CSOs</p> <p>Again, due to the sheer volume of the data from the HQ, pivot tables by GL code were used to consolidate the information. Allocations and assignments of HQ costs to case management and the related cost centers were made from these tables. CSO data were organized into searchable tables and wide varieties of key word searches of cost descriptions and existing GL codes were used to identify and assign costs. Pivot tables were used to consolidate this information and cross-check totals to ensure that every line item from all three levels of data were assigned. The proportion of CSO costs going to case management were then done using these pivot tables. Data from all three levels were then extracted and consolidated by cost area in a summary table.</p>
Currency Conversion	All data were provided in USD
Output Measure	Sum of newly enrolled beneficiaries across quarters
Allocation Decisions	<p>Expense data were used when possible. When not available or when costs were shared with case management, the allocations given below were used. They were determined by staff interview or by researcher discretion.</p> <ul style="list-style-type: none"> • Staffing: <ul style="list-style-type: none"> ○ Supervision: Social Work Advisor, 100 percent at HQ, 100 percent at state office, 100 percent at CSO ○ Other technical staff, average of 20 percent at HQ, 68 percent at state office, 69 percent at CSO ○ M&E staff, 5 percent at HQ; 70 percent at state office, 70 percent at CSO ○ HQ Quality Improvement Advisor, 50 percent ○ Drivers, 15 percent ○ Fringe, applied using staff salary • Training costs, varied based on staff LOE, applied by position type • Travel, varied based on staff LOE, applied by position type • Other M&E costs, used expense data • Subawards, used expense data • Consultancies, used expense data • Administrative costs, 20 percent *determined using review of annual report activities by Intermediate Result

APPENDIX B. QUALITATIVE ANALYSIS DETAILS

Case Worker and Case Worker Supervisor Consent Form

My name is [insert name]. I am part of MEASURE Evaluation, a project that USAID requested to assess the cost of case management at [insert project name]. You were identified by [insert project name] or another stakeholder as someone who could help us understand more about your role and day-to-day experiences as a case worker or case worker supervisor.

I would like to ask you to participate in an interview that will take between one and one and a half hours. If you agree to participate, I will ask you questions while taking written notes. I will also audio-record the interview, with your permission, so we can be sure to capture everything you said and go back and listen to it again to help us understand your answers. Only the researchers will have access to these recordings.

I will ask you questions about your training and education in case management, your caseload and time commitment, the expectations of your role, and the tools you use to do your job. There are minimal risks to you as a participant but you can skip any questions that you do not wish to answer or stop the interview at any time, without giving any reasons.

During the interview, you may decide to share information that is personal in nature. Everything you say will only be shared with the researchers and the people collecting information for this study. We will not write your name on any of the recordings or notes and we will keep the information in a secure location until it is destroyed.

We are interviewing other people as well, and we will combine all of the information we learn together so no one will be able to know what you said.

Your participation in this study is voluntary. If you don't want to participate in the study, it is okay. You can stop at any time. Your decision about whether or not to participate in this study or to answer any specific questions will in no way affect your job or relationship to the project.

Before you say **yes or no** to being in this study, we will answer any questions you have. If you join the study, you can ask me questions at any time. Do you have any questions now? *[Pause & answer all questions]*

Documentation of Verbal Consent

Do you want to participate in this study?

If individual consents, interviewer signs and dates form, and retains copy.

Individual has consented.

Individual has not consented.

Signature of Interviewer:

Date:Place:

May we audio-tape this interview?

If individual consents, interviewer signs and dates form, and retains copy.

Individual has consented.

Individual has not consented.

Signature of Interviewer:

Date:Place:

If you have questions after the interview or would like to speak with someone regarding your participation, you may contact [REDACTED].

Implementing Mechanism Case Worker/Case Worker Supervisor Interviews

Name of Interviewer:	
Date of Interview:	
IM and site/location:	
Interviewee Position:	
Length of Interview:	

Research Questions of Interest:

- What is the context for case management costs?
- Who are the case workers? What are their qualifications and capacity?
- What is their caseload like? How does the caseload ratio affect how case workers perceive their ability to provide quality services?
- What case worker training/supervision support is done? How often? What are the costs? Do case workers perceive this level of training/supervision to be sufficient?
- Are case workers paid or unpaid? What is the level of payment and is it perceived as sufficient to case workers?
- Are case management tools paper- or mobile-based? How do the tools being used affect case workers / their perception of the impact of these tools?

Content Areas of Interest to Answer Research Questions

- Case worker training/education both prior to and after beginning in their current role
- Casework loads and perceived expectations in their role/those they supervise
- The monetary benefits or otherwise for their work
- The tools case workers use in the field for tracking beneficiary data
- The time case workers spend on various portions of their work (i.e., home visits, paperwork, other administrative or beneficiary care work)
- Any casework-/supervision-related expenses potentially not tracked elsewhere

Introductory Questions:

1. Can you describe the [insert name] project briefly?
 - 1.1. What is the purpose/goal of the project?
 - 1.2. Please describe the extent to which you think the project has met or has not met this goal.

2. Can you describe your position and role at [insert project name]?
 - 2.1. How long have you worked with [insert name] the project as a case worker/supervisor?
 - 2.2. How did you get started with this work?

3. What type of training did you receive for this position?
 - 3.1. Please describe what you learned in this training.
 - 3.2. What did you think of the training? Was it helpful for what you do now?

- 3.3. Is there any type of routine training that happens? If so, please describe.
- 3.4. Were there things that weren't covered in the training that would have been useful to you/those you supervise?
- 4. Do you have prior education in case management/social work? If so, describe your education.
 - 4.1. How did your education prepare you for the work you are now doing?
- 5. Please describe the type of supervision you have/Can you describe the expectations your supervisor has for you?

For supervisors: Please describe the type of supervision you provide. What challenges do you experience?

 - 5.1. Please describe how supervision contributes to providing good case management to meet the project's goals.

Case Management Experience Questions:

- 6. Can you describe your day-to-day experience as a case manager/supervisor?
 - 6.1. What are your responsibilities?
 - 6.2. Can you tell me about a day you had earlier this week/yesterday while working?
- 7. Can you tell me about your typical routine when you meet with a beneficiary?
 - 7.1. How long do you spend with one beneficiary on average?
- 8. How many beneficiaries do you work with on average (caseload)?
 - 8.1. Do you feel prepared and able to handle your caseload?/Can you visit all your beneficiaries in the time you have? (*probe for potential challenges*)

For supervisors: Please describe the average caseload of the case workers you supervise and how the caseload impacts their ability to provide case management.
- 9. What do you do as a part of your case management role when you are not with beneficiaries?
 - 9.1. Can you estimate how much time you spend in transit (per day, per week)?
 - 9.2. How much time do you spend doing paper work or other administrative tasks (per day, per week)?
- 10. Describe how you keep track of beneficiary information.
 - 10.1. What kinds of tools/resources do you use for case management? [mobile tools, paper, or a mix]
 - 10.2. Please describe how you use these tools to manage your cases/caseload.
 - 10.2.1. How do you use these tools to make decisions?

(probes: about which beneficiaries to visit, how to prioritize tasks)
 - 10.3. Did you receive specific training for using these tools?
 - 10.4. Are there challenges or benefits with using these tools? Are there things about these tools that could help you do your job better?

Casework Compensation/Indirect Costs Questions:

- 11. How do you travel to visit beneficiaries?
 - 11.1. Do you have personal expenses associated with this travel?
- 12. Do you have other personal expenses in your role as a case worker/supervisor?

(probes: printing, SMS or mobile communications with beneficiaries, other)

13. Are you paid as a case worker/supervisor? If yes, can you tell me how your payment amount was decided?

13.1. If paid:

Do you think your pay helps you do your job better? If so, why?

Do you think your pay is enough/fair?

13.2. If unpaid:

Do you think payment would help you do your job better? If so, why/how?

Summarizing Questions:

14. What are the benefits of doing this work?/Why do you choose to do this work?

15. How would you describe high quality case management? Can you give examples?

15.1. Please describe the extent to which you think this project provides high quality case management.

15.2. Do you think you have the resources/ability/training to provide high quality case management like you described? Why?

15.2.1. What other resources do you think you/those you supervise need?

16. Do you have any further comments?

APPENDIX C. COST ANALYSIS RESULTS

1. Rwanda: Detailed Breakdown of Costs under Each Cost Center

Expenditure category	Costs from FXB	Total	%
Supervision		\$ 160,948	44.7%
Direct supervision	\$ 100,504		
Supervision cascade	\$ 60,444		
Training		\$ 32,092	8.9%
CW training	\$ 28,907		
Staff training	\$ 3,185		
Training support			
Travel and transportation		\$ 80,682	22.4%
Field staff and CWs	\$ 19,851		
Other travel/supervision cascade	\$ 47,642		
M&E travel	\$ 13,189		
CW support		\$ 4,144	1.2%
CW stipends and materials			
Printing of tools	\$ 4,144		
Monthly meeting costs			
Communication costs			
Other costs		\$ 82,255	22.8%
M&E support	\$ 1,776		0.5%
Labor and personnel general	\$ 76,366		21.2%
Office supplies/expenses	\$ 4,112		1.1%
Total cost of case management		\$ 360,120	
Annual cost (2.7 years)		\$ 134,489	
Cost per beneficiary		\$ 21.96	
Proportion of total project costs spent on case management		22%	

2. Tanzania: Detailed Breakdown of Costs under Each Cost Center

Expenditure category	Pact HQ	JSI	Pact CBOs	Total	%
Supervision				\$ 401,097	5.1%
Direct supervision			\$ 123,596		
Supervision cascade	\$ 131,270		\$ 146,231		
Case management & related training				\$ 4,482,213	56.8%
CW training		\$ 3,608,149	\$ 212,786		
Staff training	\$ 49,773	\$ 154,528	\$ 319,178		
Training support	\$ 116,138	\$ 21,661			
Travel/Transportation				\$ 432,646	5.5%
Field staff and CWs			\$ 94,952		
Other travel/Supervision cascade	\$ 229,824		\$ 107,871		
Case management & CW support				\$ 1,103,369	14.0%
CW stipends and materials			\$ 782,850		
Printing of tools	\$ 25,082	\$ 104,968	\$ 67,296		
Monthly meeting costs			\$ 3,134		
CW identification costs		\$ 73,872			
Beneficiary identification costs			\$ 8,631		
Communication costs			\$ 37,537		
Other costs				\$ 1,466,989	18.6%
M&E support			\$ 33,942	0.4%	
Labor and personnel general	\$ 465,901		\$ 243,719	11.9%	
Office supplies/expenses	\$ 195,030		\$ 529,773	6.3%	
Total cost of case management				\$ 7,886,315	
Annual cost (1 year)				\$ 7,886,315	
Cost per beneficiary				\$ 15.97	
Proportion of total project costs spent on case management				41.1%	

3. Uganda: Detailed Breakdown of Costs under Each Cost Center

Expenditure category	Costs from World Education	Costs from partners	Costs from CSOs	Total	%
Supervision				\$ 545,848	10.4%
Direct supervision	\$ 14,621	\$ 80,303	\$ 88,934		
Supervision cascade	\$ 210,054	\$ 86,063	\$ 65,873		
Case management & related training				\$ 437,834	8.4%
CW training	\$ 101,707	\$ 274,928	\$ 3,012		
Staff training	\$ 20,296	\$ 1,289			
Training support	\$ 7,868	\$ 22,641	\$ 6,092		
Travel/Transportation				\$ 284,448	5.4%
Field staff and CWs		\$ 95,449	\$ 51,305		
Other travel/Supervision cascade	\$ 137,694				
Case management & CW support				\$ 1,863,816	35.6%
CW stipends and materials	\$ 124,182	\$ 120,558	\$ 191,578		
Printing of tools	\$ 15,922	\$ 6,610	\$ 19,822		
Monthly meeting costs	\$ 121,600	\$ 3,904	\$ 4,529		
Identification costs	\$ 671,598		\$ 3,612		
Referral costs	\$ 49,175	\$ 124,232	\$ 302,332		
Communication costs	\$ 79,557	\$ 17,127	\$ 7,478		
Other costs				\$ 2,102,297	40.2%
M&E support	\$ 135,363	\$ 45,783	\$ 67,833		4.8%
Labor and personnel general	\$ 606,708	\$ 553,321	\$ 157,477		25.2%
Office supplies/expenses	\$ 412,264	\$ 66,314	\$ 57,234		10.2%
Total cost of case management				\$ 5,234,244	
Annual cost (2.5 years)				\$ 2,093,697	
Cost per beneficiary				\$ 47.38	
Proportion of total project costs spent on case management				55%	

4. South Africa: Detailed Breakdown of Costs under Each Cost Center

Expenditure category	Pact	Total	%	NOTES
Supervision		\$ 671,529	32.0%	
Direct supervision				
Supervision cascade	\$ 671,529*			*includes estimate of staff salaries going to supervision cascade and technical assistance provided through subawards to seconded Pact social workers
Case management & related training		\$ 119,871	5.7%	
CW training				
Staff training	\$ 3,298			
Training support	\$ 116,573			
Travel/Transportation		\$ 50,933	2.4%	
Field staff and CWs				
Other travel/Supervision cascade	\$ 50,933			
CW support		\$ 63,031	3.0%	
CW stipends and materials				
Printing of tools	\$ 18,565			
Monthly meeting costs	\$ 23,135*			*includes costs of DSD planning meetings
Identification costs				
Referral costs	\$ 21,332			
Other		\$ 1,194,445	56.9%	
M&E support	\$ 375,740		17.9%	*includes subaward costs for assessments of DSD Service Point and NPOs
Labor and personnel general	\$ 744,269		35.4%	
Office supplies/expenses	\$ 74,436		3.5%	
Total cost of case management		\$ 2,099,808		
Annual cost (1 year)		\$2,099,808		
Cost per beneficiary		\$ 9.77		
Proportion of total project costs spent on case management		15%		

5. Zambia: Detailed Breakdown of Costs under Each Cost Center

Expenditure category	Costs from ECR	Costs from partners	Costs from CBOs (73)	Total	%
Supervision				\$ 927,000	16.5%
Direct supervision	\$ -	\$ 28,877	\$ 74,492		
Supervision cascade	\$ 518,272	\$ 305,358			
Case management & related training				\$ 1,851,345	32.9%
CW training	\$ 1,202,316	\$ 85,020	\$ 436,753		
Staff training	\$ -	\$ 34,934			
Training support	\$ 79,904	\$ 12,417			
Travel/Transportation				\$ 273,878	4.9%
Field staff and CWs	\$ 106,533	\$ 50,6612	\$ 24,8301		
Other travel/Supervision cascade	\$ 21,492	\$ 70,360			
Case management & CW support				\$ 795,882	14.2%
CW stipends and materials	\$ -	\$ -			
Printing of tools	\$ 233,506	\$ -	\$ 24,831		
Monthly meeting costs	\$ 351,753	\$ -	\$ 5,518		
Identification costs	\$ 27,833	\$ 113			
Referral costs	\$ 20,307	\$ 7,8689	\$ 49,661		
Communication costs	\$ -	\$ -	\$ 74,492		
Other				\$ 1,775,963	31.6%
M&E support	\$ 78,436	\$ 114,730	\$ 159,056		6.3%
Labor and personnel general	\$ 1,250,601	\$ 1,826			22.3%
Office supplies/expenses	\$ 90,851	\$ 30,801	\$ 49,661		3.0%
Total cost of case management				\$ 5,624,068	
Annual cost (2 years)				\$ 2,812,034	
Cost per beneficiary				\$ 50.41	
Proportion of total project costs spent on case management				22%	

6. Nigeria: Detailed Breakdown of Costs under Each Cost Center

Expenditure category	Costs from HQ	Costs from Partners	Costs from CSOs	Total	%
Supervision				\$ 2,468,181	34.6%
Direct supervision			\$ 1,909,692		
Supervision cascade	\$ 470,657	\$ 87,832			
Case management & related training				\$ 393,548	5.5%
CW training			\$ 15,267		
Staff training			\$ 77,979		
Training support	\$ 264,770	\$ 35,532			
Travel/Transportation				\$ 282,111	4.0%
Field staff and CWs			\$ 14,137		
Other travel/Supervision cascade	\$ 158,750	\$ 76,236	\$ 32,987		
Case management & CW support				\$ 1,381,807	19.4%
CW stipends and materials			\$ 1,222,070		
Printing of tools	\$ 2,594		\$ 57,519		
Monthly meeting costs			\$ 14,244		
Identification costs					
Referral costs			\$ 3,561		
Communication costs	\$ 16,161		\$ 65,659		
Other				\$ 2,604,118	36.5%
M&E support	\$ 98,894		\$ 64,444		2.3%
Labor and personnel general	\$ 571,974	\$ 131,749	\$ 1,273,128		27.7%
Office supplies/expenses	\$ 151,529	\$ 185,611	\$ 126,788		6.5%
Total cost of case management				\$ 7,129,766	
Annual cost (4 years)				\$ 1,782,441	
Cost per beneficiary				\$ 21.73	
Proportion of total project costs spent on case management				33%	

MEASURE Evaluation
University of North Carolina at Chapel Hill
123 West Franklin Street, Suite 330
Chapel Hill, NC 27516 USA
Phone: +1 919-445-9350
measure@unc.edu
www.measureevaluation.org

This publication was produced with the support of the United States Agency for International Development (USAID) under the terms of MEASURE Evaluation cooperative agreement AID-OAA-L-14-00004. MEASURE Evaluation is implemented by the Carolina Population Center, University of North Carolina at Chapel Hill in partnership with ICF International; John Snow, Inc.; Management Sciences for Health; Palladium; and Tulane University. Views expressed are not necessarily those of USAID or the United States government. TR-19-327

ISBN: 978-1-64232-121-0

