KENYA

Case Study Series
Community-Based Information Systems

Background

Many community-based programs provide services to mitigate the effects of the HIV and AIDS epidemic, including HIV prevention, HIV care and treatment, and services for orphans and vulnerable children (OVC). These programs vary widely in terms of the data that are collected for monitoring and evaluation (M&E); the job function and skills of data collectors; and how and by whom the data are managed, analyzed, used, and stored. MEASURE Evaluation, with funding from the United States Agency for International Development (USAID) and support and technical input from members of the President's Emergency Plan for AIDS Relief (PEPFAR) OVC Technical Working Group (TWG), conducted case studies in three countries (Kenya, Tanzania, and Zambia) to understand and document how community-based information systems are designed, implemented, and used to provide information to a broad range of stakeholders.

To guide the case study, MEASURE Evaluation formulated a number of questions, including:

- Why are community-based M&E systems developed?
- What indicators are useful at the community level?
- Who uses information from such systems, and for what purpose?
- How are data stored, analyzed, and reported? How does information collected in these PEPFAR programs link with existing government reporting?
- What are the benefits or challenges of electronic systems?

The case study team selected OVC programs as the area of focus because such programs rely heavily on community workers and community-based organizations to implement activities and monitor program progress. However, case study findings are relevant to other PEPFAR care programs such as home based care (HBC), nutrition, integrated HBC and OVC, comprehensive programs to mitigate the effects of HIV, and general community health programs that also work through local communities and are at the forefront of AIDS-free generation efforts.

This report presents the results of the Kenya case study. Case study reports for Tanzania and Zambia are presented separately. These reports are meant to be shared with country governments, programs, and donors working on community based information systems.

Programs for OVC in Kenya

Through PEPFAR, the United States has provided support to Kenya for comprehensive HIV and AIDS prevention, treatment, and care programs. OVC programs are one component of PEPFAR's response to address the needs of families, communities, and children infected with and affected by HIV and AIDS. In Kenya, there are approximately 1.2 million orphans due to HIV and AIDS and approximately 1.5 million adults and children living with HIV,[1] presenting a vulnerable situation for families and communities across

1) UNAIDS, Report on the global AIDS epidemic, 2010.

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the country. This case study focused on the USAID/Kenya-funded project APHIAplus (AIDS, Population and Health Integrated Assistance), which operates in the regions of Western and Nyanza, Nairobi and Coast, Northern Arid Lands, Rift Valley, and Eastern/Central. Each project is run separately by a different lead partner in each region (Path, Pathfinder, AMREF, FHI360, and JHPIEGO).

The goal of the five-year (2011–2015) APHIAplus project is to increase the use of quality services, products, and information and to address social determinants of health to improve the well-being of targeted communities in Kenya. APHIAplus is a comprehensive, integrated project offering clinical and community-based services, including support to OVC. Each APHIAplus project has a consortium partner as technical lead for OVC activities. These partners include World Vision, Child Fund, Catholic Relief Services (in 2 locations), and AMREF.

The APHIAplus projects works to support the Government of Kenya (GoK), which has recently gone through devolution.[2] At the national government level, the Ministry of Labour, Social Security and Services' mission is to safeguard the rights and welfare of all children in Kenya through implementation of relevant policies, coordination, supervision, and delivery of services. The Department of Children's Services is responsible for setting policy and guidelines related to the care and protection of children. They have developed the Minimum Service Standards for OVC in Kenya that programs refer to for programmatic guidance.[3] In addition, the department coordinates the National Council for Children's Services, which has representatives from different line ministries (e.g., education, agriculture, health) working to address issues related to OVC.

The sub-national level includes different structures such as the County and Sub-County Department of Children's Services. These levels also have Area Advisory Councils (AACs) and Local Area Advisory Councils (LAACs) comprising different government and non-government partners who meet quarterly to address issues related to OVC. The APHIAplus projects support these structures. In addition, Volunteer Children's Officers (VCOs) based at the community level work on issues related to child protection.

The Department of Children's Services runs several programs to monitor and provide support to OVC. These include the Cash Transfer program, the 116 Child Helpline to report concerns with respect to child protection, and a pilot Child Protection Management Information System (CPMIS), developed in coordination with United Nations Children's Fund (UNICEF). In April 2014, a technical working group was formed to upgrade the National CPMIS. The Department of Children's Services leads this work, with participation from development partners.

Methods

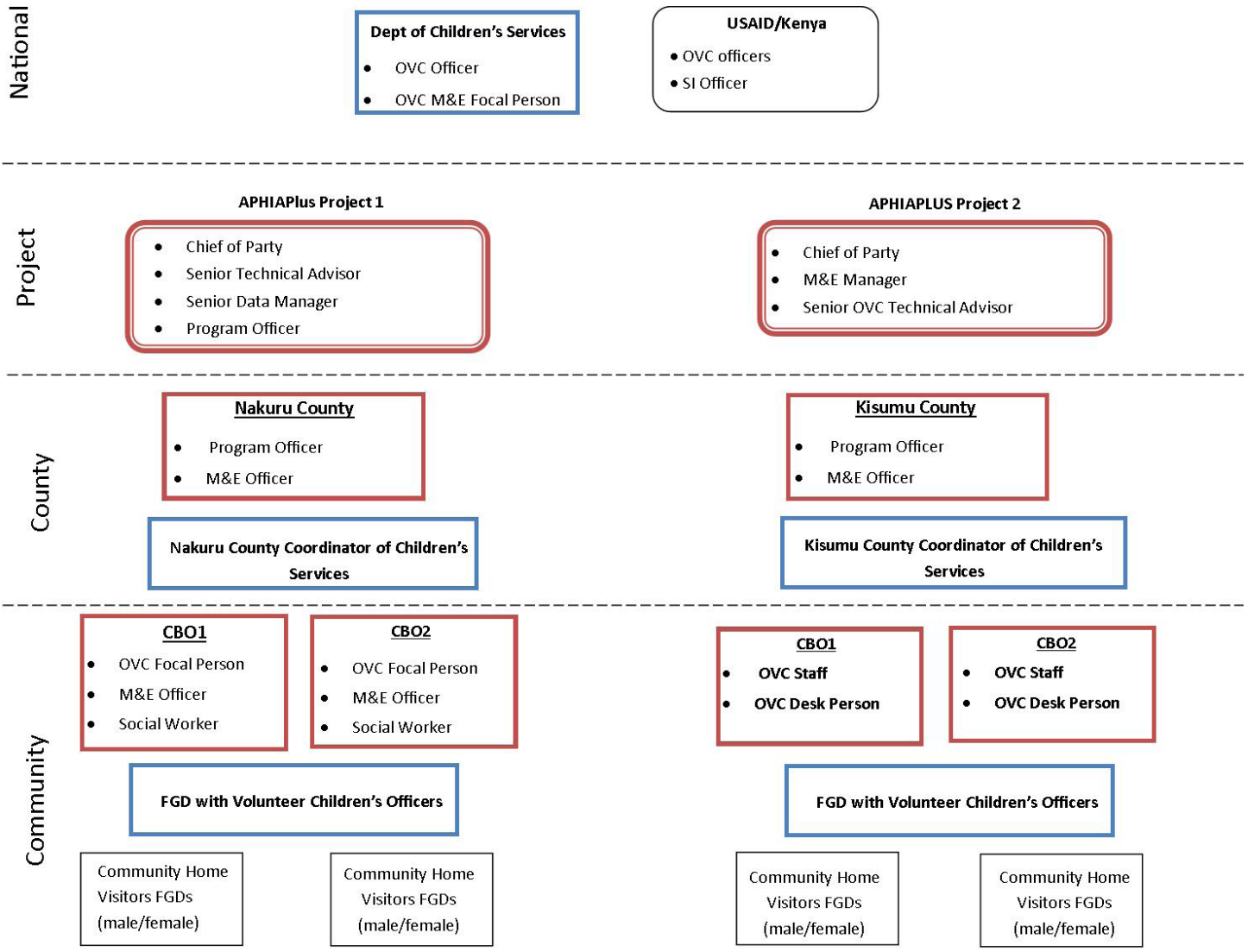
The case study team used a vertical case study design, meaning that information was collected from the national to community levels (Figure 1). At the national level, the team conducted interviews with USAID, GoK, and the Department of Children's Services. Based on regional variation, two different APHIAplus projects were selected. Data collection involved two lead qualitative data collectors conducting in-depth interviews with OVC program and/or M&E staff at the headquarters, county, and community-based organization (CBO) level. Focus group discussions (FGDs) were conducted with CHVs responsible for providing care and support to OVC in their communities. Interviews were primarily conducted in English, while FGDs were conducted in English or Swahili depending on region.

The team obtained signed informed consent from all participants and sessions were recorded if agreed by all participants. We also collected and reviewed program

2) In 2010, Kenya approved a new constitution leading to devolution , or decentralized system of government. The new Constitution divides the country into 47 counties, to which both political power and government functions will be devolved. Source: World Bank: http://siteresources.worldbank.org/INTAFRICA/Resources/257994-1335471959878/Decentralization_in_Kenya_Background_Note.pdf

3) http://www.usaidassist.org/sites/assist/files/kenya_ovc_standards_job_aid_sept13.pdf

Figure 1—OVC M&E Case Study Design in Kenya



documents such as activity reports, manuals, and forms, as well as conducting observations of CBO filing systems. The case study design was submitted to the Futures Group Internal Research Review committee and determined to be exempt from full Institutional Review Board review.

In some cases more or fewer people participated in the interviews based on their availability. At the central level, the team interviewed six staff from USAID Kenya, three representatives of the Department of Children's Services, and one individual from UNICEF. The case study team visited and studied two APHIAplus projects in Kenya: one project based in Nakuru and another project in Kisumu. At each project two CBOs that the project supports were visited. Between project headquarters and county levels, 13 individuals were interviewed. Five sub-national Department of Children's Services staff (county, sub-county, and children's officers) were also interviewed. At the CBO level, 13 staff members from four CBOs—2 at the municipality and 2 in rural locations—were interviewed, and 63 CHVs, 22 male and 41 female, participated in eight FGDs.

Brief Program Description

In both APHIAplus projects visited, the OVC portfolio falls under the result area related to Social Determinants of Health and involves two main programmatic areas:

1. providing support to OVC and their households through service provision, referrals, and economic strengthening activities; and
2. strengthening the capacity of caregivers, CBOs, communities, and government structures to respond to the needs of OVC.

The CHV is the front line worker in terms of service provision and data collection at the household level. This CHV is typically from the community and provides services according to the Minimum Service Standards for OVC in Kenya and PEPFAR guidelines. CHVs conduct home visits to assess the status of children and conduct follow-up visits as needed. The types of services and support they provide include health education and referrals, advising on family gardens, counseling, follow-up on school drop-out and absenteeism, birth certificate registration, enhancing household structures, facilitating participation in income generation activities and savings groups, and providing commodities to OVC such as sanitary pads and mattresses. Project 1 reaches approximately 80,000 OVC in five counties which are served by 17 different CBOs. Project 2 reaches 190,000 OVC in 10 counties which are served by 75 CBOs. Table 1 presents the OVC program structure at the CBO level, as well as OVC service delivery staffing and CHV caseload. Project 1, CBO1 has four sub-CBOs that have CHVs conducting household visits to monitor individual OVC and caregivers. Project 1, CBO2 uses a different model, with 10 drop-in centers dispersed across the geographic coverage area. The drop-in center that was visited had approximately 50 CHVs who were divided into approximately four clusters for coordination and administration purposes. At both Project 1 CBOs, social workers supervise the work of CHVs. For Project 2, both CBOs worked with lead CHVs, each responsible for approximately 10 CHVs. Typically, there is one CHV per village—for Project 1 CBOs, the average OVC caseload was between 25 to 30 children (approximately six to seven households), whereas Project 2 CBOs averaged about 50 children or 15 households.The CHVs who conduct home visits are required to visit each household once per quarter, though visits may be more frequent depending on the child or household's status.

M&E Systems

Both APHIAplus projects have designated M&E staff at the headquarters and county levels. At the CBO level, the M&E responsibilities differ by project (Table 2).

Table 1—OVC Program Structure

	Project 1		Project 2	
	CBO1	CBO2	CBO1	CBO2
Structure	Sub subs	Drop-in centers, Cluster	CBO	CBO
Paid Staff	Social worker	Social worker	Lead CHV	Lead CHV
Unpaid Staff*	CHVs	CHVs	CHVs	CHVs
CHV OVC Caseload	25–30 OVC (6–7 HHs)	30 OVC (6–7 HHs)	50 OVC (15 HHs)	50 OVC (15 HHs)

** typically receive partial recompense in the form of transit costs and other subsidies*

Table 2—M&E Staff at CBO Level

	Project 1		Project 2	
	CBO1	CBO2	CBO1	CBO2
Staff with M&E responsibility	M&E officer	M&E officer	OVC desk person	OVC desk person
Number of data clerks	1	6	n/a	n/a

The CBOs that Project 1 supports have full-time M&E officers and depending on data entry volume, employ either full-time or temporary data clerks for data entry. Project 2 CBOs employ OVC desk persons who enter CBO aggregated data into a spreadsheet that is shared with the county program and M&E officers.

Each APHIAplus project currently has its own M&E system and performance monitoring plan (PMP). However, both projects report on PEPFAR indicators[4] (total # of OVC reached with at least one service, # receiving one or two services, and # receiving three or more services, disaggregated by sex) into the Kenya HIV/AIDS Program Monitoring System (KePMS). USAID/Kenya, however, has recently facilitated a process with the USAID OVC TWG, comprising USAID OVC implementing partners in Kenya, to develop standardized tools and database for all of the APHIAplus projects. These new forms and systems were slated to roll out in spring 2014. This case study will describe what the revised forms include; however, we will also report on the current systems to learn about what led to the revisions and new systems.

4) Just after the case study visit, PEPFAR started rolling out the Monitoring, Evaluation, and Reporting (MER) indicators, which will shift the types of data collected for OVC programs.

In addition, the GoK at various levels requests that information on OVC activities be shared at the county and national level, but there is no formal reporting process in place. The Department of Children's Services has its own reporting systems for government initiatives (i.e., cash transfer database at the central level, the CPMIS, case management registry, and a database of children's homes), but donor-funded projects do not report directly into such systems.

M&E Forms

In both APHIAplus projects visited, CHVs are responsible for collecting the majority of information through forms that the implementing partner provides. The list of forms was similar for both projects (Table 3), with the exception of the daily tracking sheet that Project 2 uses. The details of information collected varied by project (in particular for the service delivery form).

After identifying households for enrollment through a community-led process, CHVs start the registration process which involves administering a consent form, bio-data form, and household assessment form. Information collected for each child includes his/her personal information such as name, gender, date of birth; education details of the child; health details of

Table 3—APHIAplus data collection forms and when information is collected

Data Collection Forms	Timeframe of Data Collection	Who Completes
Consent form	Enrollment	CHV
Household Registration Form	Enrollment	CHV
Household Vulnerability Assessment	Enrollment, prospectively on routine basis	CHV/social worker
Needs Assessment or CSI	Enrollment and routine basis	CHV
Biodata	Enrollment	CHV
Service Delivery Form	Monthly Project 1, Quarterly Project 2 (will switch to monthly)	CHV
Referral Forms – project and government	As needed	CHV
Exit form	At graduation	CHV
Village Savings and Loan	Monthly	CHV lead for VSL
Daily Tracking Sheet (Project 2 only)	Daily (Project 2)	CHV
CHV quarterly service provision aggregation form	Project 2, quarterly	Lead CHV with CHV team
CBO quarterly service provision aggregation form	Project 2, quarterly	OVC desk person
CBO quarterly needs identified summary sheet	Project 2, quarterly	OVC desk person

a child and guardian, such as HIV status; guardian information; the Child Status Index (CSI) or "needs assessment"; and the three priority needs of the child. Household information collected includes household demographics; water sanitation and hygiene conditions; shelter conditions; food security and nutrition situation; household income and property; health services and health-seeking behavior practices; and the top three household priorities.

The enrollment process is typically administered by CHVs at the household level, but in one location, it is administered at the drop-in center by the social worker. Based on household assessment results, households are categorized into high, moderate, or low vulnerability; and services received depend upon the vulnerability level. At Project 1, the vulnerability level is determined at the headquarters level once information is entered into the database and a formula used to determine vulnerability status. After analysis, the data are integrated into the OVC Longitudinal Management Information System (OLMIS) to facilitate use by CBOs and CHVs during monitoring of OVC. At Project 2, CHVs determine vulnerability levels, and the type of services offered varies based on vulnerability level.

Use of the CSI varies among the projects and has changed over time. Initially, the CSI was administered to a sample of 10 percent of households and has been, according to those interviewed, used as a "quality assurance tool for CBOs." Now that the new registration forms have rolled out, the CSI is part of the registration process and is administered to all children at registration. CBOs will likely continue to do follow-up CSI administration on a sample of children to assess their needs over time and whether such needs have changed. Once a household has been registered, a service delivery form is completed. The process for completing Form 1A and the flow of that information differs by project.

Project 1: CHVs administer the service delivery form on a monthly basis. It assesses both child status and core services received. In addition, the CHV notes the three priority needs of a child during the visit. Caregivers are required to sign each form for every child in the household to verify what is written in the form. Forms are brought to the CBO or Drop-in Center during monthly meetings when the social worker and other staff review the number of services provided and cross-check data. Copies of forms are submitted to the CBO for data entry and filing into the OVC file. Data entry clerks then enter data into the OLMIS.

Project 2: CHVs complete a Daily Tracking Sheet after each household visit where they record what happens during the home visit. At the end of a quarter, CHVs aggregate information from the quarter for each individual child into the service delivery form, which captures child status, services received, and priority needs. On a quarterly basis, lead CHVs meet with their CHVs and spend a full day working together to complete the CHV quarterly service provision aggregation form, which summarizes all the CHVs' service delivery forms and are disaggregated by sex. The lead CHVs then submit the completed forms to the CBO, and the OVC desk person completes the CBO quarterly service provision aggregation form and the CBO quarterly needs identified summary sheet, which summarize services for all OVC and identifies their needs. Program officers review data and send them to county M&E officers, who enter data into data tables, aggregated across all counties for the project. The M&E advisor then reviews the data.

The main differences between these two approaches are the frequency (monthly vs. quarterly reporting) and where aggregation occurs. At Project 1, aggregation is done monthly at the CBO level with automated data entry, while at Project 2, the CHV, lead CHV, and CBO staff aggregate data quarterly by hand.

USAID/Kenya together with the OVC TWG in Kenya identified gaps in the current report forms and systems. Together they identified ways to streamline data collection across the APHIAplus projects including:

- development of a new service delivery form that was rolled out in spring 2014 (Appendix A on page 16),
- development of a new caregiver form (Appendix B on page 18), and
- moving all APHIAplus projects to OLMIS.

The gaps identified by the TWG and proposed solutions are detailed below. However, some individuals still question the need for CHVs to collect all of the information required by the program. As a senior program officer explains:

> *I think this is something people need to discuss at project level, the frequency of data collection and how we use this. For example I know we can talk of issues to do with WASH [water, sanitation, hygiene] at times we get that from the ministry. If we have known this household has a latrine, when I visit again do I have to keep ticking on that? … can we have some data be collected on a monthly basis, then semi-annually where I don't need to have home visitor collecting all this. We can have maybe research assistants who can be hired to come and collect data for specific purposes so that we ease the work on home visitors.*

Development of the new service delivery form

In the service delivery form, certain data collection elements (e.g., priority needs, education performance) were collected too frequently from households. In some cases the status of the child would not be expected to change that frequently, nor may the program be able to respond that quickly (e.g., for certain commodities). The new service delivery form indicates which indicators need to be collected monthly, semi-annually, and annually (e.g., school performance).

At Project 2, the service delivery form was completed on a quarterly basis and involved aggregating information over the quarter—thus making it challenging to present the status of a child accurately. For example, if a child was sick in the first month, then improved, determining which one to "count" for the quarterly form was a challenge. Project 2 will begin to use the new service delivery form on a quarterly basis.

At both projects, the current storage and access to forms does not easily allow CHVs to track progress of individual households and children over time. OLMIS can provide longitudinal information for children and households, to the individual child level, if queried by a CBO. The new service delivery form will provide three separate perforated sections, one for each month, that will be completed and torn off to submit for reporting, but a carbon copy will remain in the file, allowing CHVs to see what the status was last month and compare progress and services provided over a quarter.

Development of a new caregiver form

The current menu of data collection forms did not capture information related to the caregiver, other than demographic information. Staff wanted to be able to track how the caregiver is faring (i.e., health, education, psychosocial, economic status) and track the support provided to them, given their important role in ensuring a stable and supportive environment for the children in their care. The new caregiver form attempts to capture such information.

Rolling out OLMIS

At Project 2, CBOs have been aggregating data into the CHV quarterly service provision forms and CBO quarterly service provision aggregation forms, including disaggregating by sex. This process can take a full day at one CBO and limits the ability to disaggregate by other variables. Introducing OLMIS to all projects will shift the burden of aggregation onto the CBO, allow for more robust analysis, and present a systematic reporting system across all APHIAplus projects.

Data Quality Mechanisms

Training

The training approach works similarly at both projects, whereby the project headquarters and county M&E staff train program staff and CBOs to use the forms, and then CBOs train the CHVs with varying degrees of support from the M&E officers. Through supportive supervision (described on p.8), training is a continuous process. Where OLMIS has been rolled out, training has also been provided on data entry, electronic transmission, data for decision making, and querying. There does not appear to be monitoring of service quality and how that data could inform quality improvement. Both projects talked about different methods used to assess and improve upon data quality. Project 1 has detailed Standard Operating Procedures (SOPs) and guidelines for the tools and database, including how to conduct data validation.

At Project 1 ensuring high quality data occurs in different but complementary ways. The project closely monitors data quality and reporting of CBOs, including holding a competition among CBOs and recognizing the best performing CBOs in terms of data quality. At the field level, social workers use the verification checklist on the service delivery form to check basic data quality before submitting the forms for data entry. The project also conducts data quality audits where a sample of forms are pulled and checked for completeness and accuracy. During data entry and analysis, data quality is also being checked and verified through built-in checks ensuring data fall within expected ranges (e.g., that age ranges are correct, type of commodities are appropriate for the age group or gender). Finally, each CBO is supposed to do their own Data Quality Assurance (DQA) on a quarterly basis and write up reports and action points for improvement.

At Project 2, staff also described conducting spot checks whereby program and CBO staff conduct random visits to individual households to ensure that households were visited and received the services reported. Further, as Project 2 moves through the aggregation process at the CBO level, they check for errors or inconsistencies with the data. Lead CHVs play an important role in reviewing data quality and providing supervision on reporting. In general, the project follows an iterative process up and down the reporting system to clarify and make corrections as needed. One county M&E officer explained how this works:

> *… the major issue is to share the data that we have received from the CBOs. We look at it and of course there are some cases you find it is not adding up like if you add the kind of benefits and looking at the total number of OVC served per CBO, you will definitely see there could be one thing missing or another so then in our meeting with them we tell them this number of OVC served should be the same as if you give the OVC per service.*

Supportive Supervision

Both projects described conducting joint supportive supervision for M&E activities—meaning that both program and M&E officers conduct visits to the field—and holding technical review meetings quarterly with each partner. At the CBO, monthly meetings are held to review forms and data with CHVs, checking for accuracy and completeness. These meetings also provide an opportunity for problem solving and discussing specific cases. The CBO with drop-in centers has cluster meetings with smaller groups of CHVs to facilitate further information sharing. The social worker from a drop in center shared how this works:

> *I also make sure that I attend each and every monthly meeting with the community health volunteers and the cluster meetings we have within the month in specific areas to make sure that issues to do with data, programming, and all interventions and strategies are all in line with whatever we are supposed to be doing on the ground.*

However, in one observed monthly meeting with CHVs (Project 1), the meeting primarily focused on ensuring that forms were filled out correctly and that children received three or more services. Actual case review, including discussion of child and family progress, were lacking. In terms of providing support on OLMIS, Project 1 has developed innovative approaches where they are able to "take over" a CBO computer from the headquarters level to perform remote/virtual troubleshooting with the M&E officer at those locations. The Senior Data Manager explained:

> *We are very innovative and we like embracing technology which saves us on time and also the cost of having to run from one region or from one CBO to the other. We have embraced quite a number of technologies that are able to make us become as efficient as [we] possibly can.*

At Project 2, program and M&E staff conduct what they call "caravans," where they travel as a team to a county and sample different CBOs, selecting OVC files to verify services. In addition, they conduct monthly visits to CBOs for routine supervision visits.

Data Management and Analysis

Storage

Discussions with CBOs and CHVs illustrated how and where information generated from the M&E system

Wayne Hoover, MEASURE Evaluation

are stored. All information related to children, from registration forms to school performance and service forms, are filed into OVC files at the CBO offices where CHVs require permission to access files. The extent to which these files are updated and accurate was not assessed during this case study.

CHVs do not keep copies of registration forms, but in some cases they keep copies of the service delivery form. All CHVs discussed the use of notebooks where they are encouraged to write down specific information related to household visits or other important information. What is reported in notebooks varies, with some keeping details about OVC and their status and others just tracking notes from meetings. At Project 1 at the drop-in centers, they also maintain a master list of all OVC by CHV. This way, if CHVs leave, a new CHV can easily know the households for which they are responsible.

Databases

Project 1 developed the OLMIS, which is in the process of being rolled out to all of the APHIAPlus projects in country. It is a relational longitudinal Structured Query Language (SQL) database where CBOs enter data from forms into the database. The system has a feature which enables CBOs to transmit data electronically to the project office where the central database resides.

Project 2 has historically entered their data into Microsoft Excel spreadsheets and merged information from the counties. They are now moving to the OLMIS system and at the time of the case study, they had just completed entry of OVC registration data into OLMIS. Project 1 is tasked with providing Project 2 technical assistance and guidance on roll out and use of OLMIS.

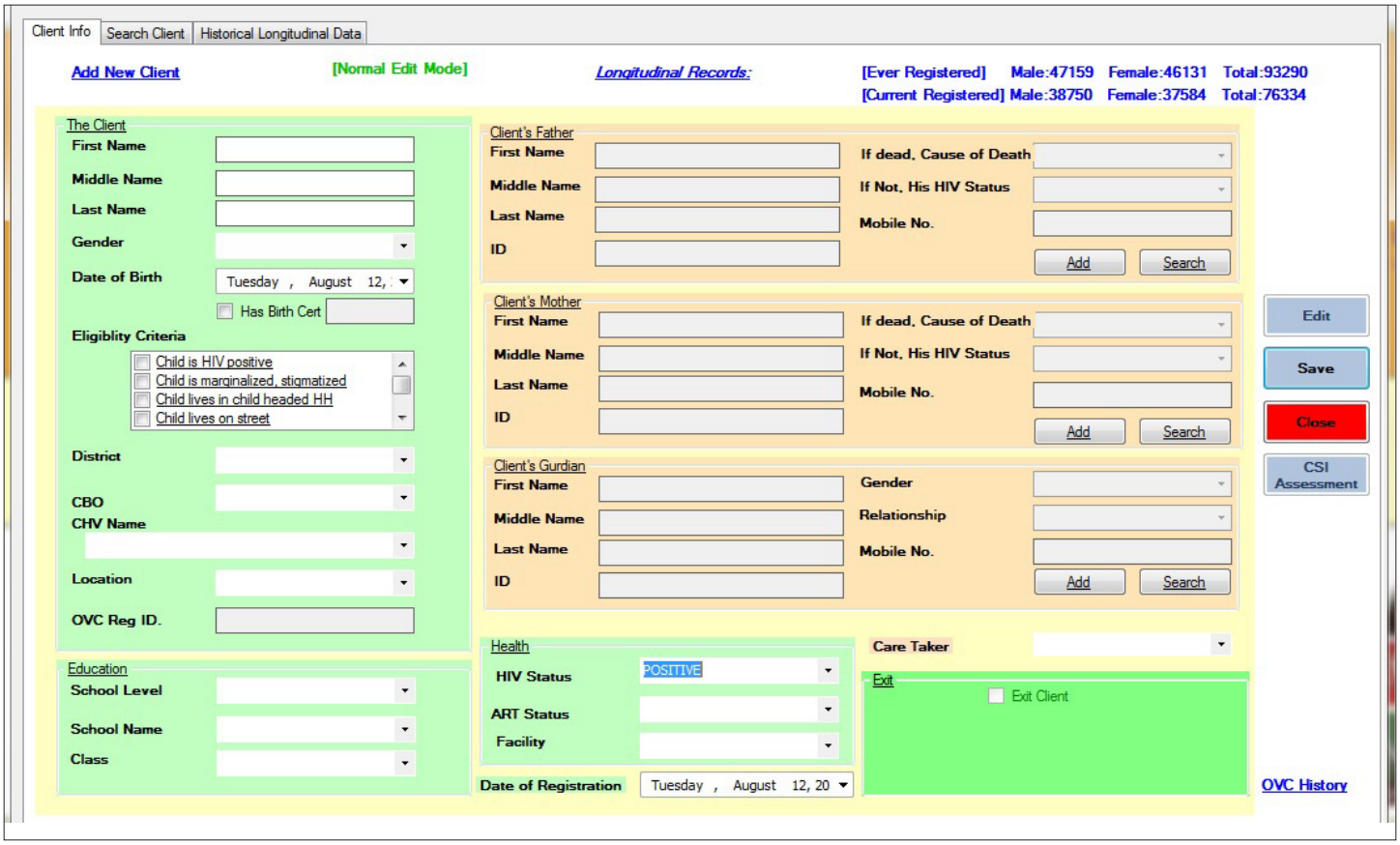
Security and Confidentiality

OVC files are typically stored in locked filing cabinets in locked offices. In some instances, CBOs did not have enough filing cabinets and had files stored on open shelves, yet still in a locked office. The only form that CHVs maintain a copy of is the service delivery form, in books that have carbon copies. When the book is full, CHVs submit the book to the CBO for storage. While books are in the CHVs' possession, they are kept in the homes. Data are entered into OLMIS at the CBO. All of the locations visited have password-protected computers for data entry. Levels of access depend on user type—for example, data entry clerks have different user privileges than M&E officers. OLMIS has a built-in audit trail which the administrator can use to audit what different users did at different times.

Both Project 1 and Project 2 ensure that data are backed up and anti-virus is in place and updated. They are also provided with external internet modems to ensure internet access though the database is not dependent on internet access except during transmission of files.

Data Use

Ultimately, M&E systems are created to inform decision making. There was evidence of data use at all organizational levels, though use by CHVs was more challenging to assess. It appears that CHVs don't aggregate information from the forms and use information in that sense. When reviewing a sample of forms, much of the information was repetitive, particularly around the types of child needs and services provided. Rather, it appears the forms themselves serve as a job support tool for CHVs to a) ask about a child's well-being in the different well-being areas; and b) provide assistance to a child based on what they learn during the visit. The service delivery form that includes assessment and service is a way to help use information from the forms for a response. A CHV provided this example of how this form helps in his work:



OLMIS Biodata Screenshot

> *Through Form1A [service delivery form] it gives you guidance on how to assess a child and it's easy for me to develop a relationship with a child; and through the guide within Form 1A it is easy for me to get the needs of the child through talking one on one to the child. Then about protection Form 1A has enabled me to know a lot of things like the steps to take when a child has been victimized.*

At the CBO level, OLMIS is designed to help facilitate data use. Standardized reports are built into the system to facilitate PEPFAR reporting and customization of other reports which are disaggregated by location, sex, and age. When there is sufficient capacity, CBOs are able to create queries in response to their own information needs. For example, some CBOs run reports such as scholastic performance of OVCs, or the distribution of OVCs and their HIV status. The latter appears easier to track given the integrated nature of the program. However, even without having a database to analyze data, other CBOs talk about how the service delivery aggregation form helps them use information:

> *I think these forms have been very important in running the program because it gives us the true picture of what is on the ground and it helps us in the budgeting and planning for the project. Like for us to know that a certain number of children require school fees, we refer to form 2C, for us to know how many shelters were damaged by floods or other emergencies, we refer to form 2C, and for us to know how many children are going to secondary school, we refer to form 2C; for us to know how many children are visited and require support we refer to those forms so we use those forms to budget and for project planning.*

Table 4 (on page 11) presents different data elements and how and by whom that information is used. Both projects use data generated from the program to share with different government agencies. For example, they provide information to the Department of Children's Services to help some families access the cash transfer program, and in other cases with the Department of Education to access funds for school fees. One CBO staff member provided an example of this:

Table 4—Data elements used and for what purposes

Data element or reporting forms	Who uses the data elements for what purposes
CSI	CBO—to identify needs of OVC at the start of the project and for quality assurance measures.
Household registration	Project and CBO—to determine which households are slightly, moderately, critically vulnerable and to provide program guidance based on family status.
Number of children who received services (Service Delivery Form)	Project and CBO—to determine which children have been served and not served within a given period. Use it to work with CHVs on fully covering all assigned OVC.
Priority needs of child (Service Delivery Form)	Project and CBO—assists with commodity procurement. Helps track services provided with priority needs.
	CHVs—helps to prioritize how to help children and families.
Status by program area (Service Delivery Form)	Project and CBO—Helps ensure that services provided map back to the status of an individual child.
	CHVs—helps to prioritize how to help children and families.
Number of children who require educational support (CSI, priority needs, Service Delivery Form)	Project and CBO—used to advocate for the OVC to receive bursaries from the government education fund.
Number of OVC served	Project and CB—provided to the Department of Children's Services so that the department can program accordingly for needs of OVC
School pass rate	Used by the project to assess changes as a result of the support they provide OVC—reported by Kisumu only
Mid-upper arm circumference (MUAC) nutritional status data	Used by the project to assess changes as a result of the support they provide OVC—reported by Kisumu only
Data on activities implemented like voluntary counseling and testing (VCT)	Used to seek and justify need for in-kind support from government (e.g., to request VCT test kits from government)—reported by Kisumu only
Improvements in household structures	Used by the CBO to communicate success stories, through Talking Walls (photos posted on the CBO office walls to show before and after improvements of individuals and households)

> *So you will find with this information they are able to go and say as a CBO we are supporting these children, can you support this with CDF* [Constituency Development Fund] *or can you consider some of these households when you are recruiting the next round of cash transfers and such.*

Another CBO talked about how reviewing data helps them consider what they may need to improve from a programmatic perspective:

> *At times [the data] might show that there was a lot of psychosocial support given to OVCs and that rings a bell as to why it was offered—[there] was a problem with the OVCs in a given area. We probe more and involve the local government in terms of the drop-in center people to find out, do we have child abuse in your area, do we have drug abuse? What is this initiating [the need for] psychosocial support among the OVC's?*

Successes

There were several successes in the implementation of OVC M&E activities at the two projects visited. Participants at all levels spoke in a meaningful way about M&E and the importance of it for reporting, accountability, and using the information at various levels to help with decision making.

M&E structure is clear for both projects: M&E roles and responsibilities well delineated. Further, the relationship between program and M&E staff appears to be clear and works well with opportunities for joint supportive supervision. The CHVs could clearly articulate the forms they needed to complete and were aware of reporting timelines. The M&E staff or OVC focal persons with M&E responsibility demonstrated strong capacity, clearly describing the data sources, flow, analysis, and use of information.

OLMIS database has facilitated data analysis and use: Where OLMIS has been fully rolled out, it has helped facilitate data analysis and use of information at the project and CBO level. Many interviewed discussed how at a click they are able to access information they need.

Increased M&E capacity: Several participants described how both CHV and CBO capacity has increased with respect to completing forms and reporting on time, as indicated by this M&E officer:

> *[In the beginning] we were always having to reject a lot of their forms…there were times you would find a partner reporting below 50% and part of the reason was you know the names were not filled correctly so it has improved greatly in terms of the reporting rates and the quality of the data too has improved greatly.*

Standardized M&E elements: Standardizing the M&E elements across the APHIAplus projects is considered a strength. As described by one CBO program officer:

> *I would say compared to where we are coming from and where we are going, I would say USAID has made drastic improvement in terms of data collection, management, analysis … we are able to make decisions with that data, we are able to plan. If today I wanted to know the priority needs as per last quota or last month, I go to the button click, I will get all of them and I will know which area or which drop in center is worst hit with a specific need. For me to be able to take drastic measures and plan effectively, even in our [tight] budget, it helps because you know where you are going to plan more money on.*

Challenges

While there are many successful stories to tell about the OVC M&E systems, there are also some important considerations for the future. Importantly, some raise the issue that the data collection forms may be challenging for some of the CHVs to complete because they are in English, have many indicators, and in some cases the print is small (which is at least partly due to programs trying to consolidate as much information as possible into one form to reduce data collection burden).

Caregiver burden: Some CHVs described challenges in getting caregivers to provide required information, such as the priority needs of children. This is often due to caregivers getting frustrated that the needs expressed in the previous months had not been met, and yet they are being asked again about priority needs for each child. The case study team noted that priority needs listed were often related to commodities and receiving a specific item, rather than a service (such as a visit). As described by an FGD member, this type of situation is uncomfortable for CHVs and may lead them to complete the form without a caregiver's assistance:

> *At times we face challenges while filling [in] the priority needs. This month this OVC might require blankets, home clothes and a bag, next month I will go back to the household with the same form but you go back and you have not provided them with what they requested for the previous month, so you have to fill those needs without asking them because you cannot keep asking them the same thing for six months; some get agitated if you ask them the priority needs and you don't provide them.*

On a similar note, when households are referred, there is an expectation that the service provided is covered. At times, CHVs may not provide a referral form to avoid confrontation with caregivers:

> *At times you refer someone to the health facility and they don't have any money. They at times understand that if you give them the referral form when they get to the hospital, they should not pay anything [but] should be treated and go back home. When they get to the hospital there are charges, and some complain that we give them referral papers and they still have to pay so they don't see … why they should fill up the forms. At times we just tell them to go to hospital and we don't give them the referral forms because they do blame you if they are charged because they think referral forms means free treatment.*

Duplicative information: An overall observation is that much information is collected by the CHVs, and some of the information in the forms appears to be repetitive. There has been discussion about the extent to which the service delivery form and the CSI for example, may be duplicative, though at the CBO level, the CSI was seen

as a valuable tool for assessing needs and monitoring progress over time.

CHV burden: Some participants at the program and CBO level indicated that the amount of work for CHVs was high—not just in completing forms, but also in conducting home visits. Nearly all CHVs have additional jobs (e.g., farmers, small business owners) to earn income for their families. The way CHVs serve OVC varied considerably—some conducted home visits one day a week and others went a couple of hours each day. Completing forms is an additional task that requires much of their time, particularly at Project 2, where aggregation falls on the CHVs and lead CHVs. A senior program officer explained:

> *It [the reporting workload] is heavy for home visitors especially since they are volunteers … when you look at 50 children, being able to visit these households—it is a challenge for one person to be able to do this and especially since its volunteer work. This has been a challenge for some time, because especially being manual [the process of aggregation] you see the tools are many.*

However, not all agreed with this sentiment because home visits are conducted regardless and the individual forms do not take a significant amount of time to complete except at enrollment. Yet, there are some instances where CHVs are also community health workers (CHWs) for community units, and in these cases, the workload could be heavier:

> *We have CHVs who are CHWs. If there is a CHV who is also a CHW that means she is having two roles [and] they may have many other tools that they use in the households [besides the tools used for CHV work]. They are the ones who might complain about a lot of paperwork but for CHVs I don't think it's a lot of paperwork.*

Limited use of information at the volunteer level: We asked CHVs about how they know they are making a difference among the children they serve. Interestingly, none of the responses related to the information collected on forms. Rather, CHVs listed existing data sources such as school enrollment, school performance, the affect of a child, and growth monitoring clinic cards.

Focus on outputs and commodities: The most concerning observation involved the use of the data to focus on outputs rather than outcomes, which reinforces the portrayal of the OVC program purpose as filling immediate material needs (mattresses, school fees, sanitary pads, etc.) rather than on building resiliency. While other types of project monitoring (i.e., use of household economic vulnerability assessments) were gradually being introduced, the emphasis appeared to be put on ensuring "every child receives three or more services," a relic from outdated guidance created during the emergency plan phase of PEPFAR.

Considerations for Country Ownership

In Kenya, data are generated primarily for the use of the PEPFAR program. However, occasionally the data are shared with the GoK for negotiation, dialogue, and even to raise required support and resources. However there is no formal structured agreement or system to mainstream the data into the government systems. There are opportunities for linkages into existing government systems such as the cash transfer, education bursary, and child protection databases, but there is no comprehensive mechanism at the government level to monitor OVC interventions.

That said, one of the key aspects of the APHIAplus project is to build the capacity of CBOs—which are the organizations at the forefront of the OVC response. Such CBOs are engaged with government structures such as the AAC and LAAC, whose capacity is also being built by the APHIAplus project. Over time, building the capacity of CBOs to demand and use information for decision making will help ensure the data use cycle continues for Kenya OVC.

Conclusion

Community-based information systems are developed to capture information about child, household, and community-level services that can be used to monitor program progress and make adjustments along the way. The types of information used differs by user type

(e.g., CHVs, CBOs, implementing partners, local government, national government), and community-based information systems are ideally designed with the information needs of its users in mind with the ultimate goal of service improvement.

This case study provides insight into how community-based information systems are designed and used, and how they are evolving to constantly improve data quality and availability. The OVC TWG has worked to streamline data that APHIAplus partners collect by establishing one set of forms for the APHIAplus project as well as one database. The forms have been enhanced to provide CHVs the opportunity to compare well-being of children over time, and to determine if services provided to the caregiver/child match the need. The OLMIS system will provide CBOs with improved access to data, empowering them to access information of most use to them, rather than merely providing information for donor reporting. As these new systems roll out, ensuring that CBOs have the capacity to analyze and use data will be critical.

This case study suggests that CHVs are collecting a lot of information, some of which may be repetitive, collected more frequently than needed, and not strategic for the program, CBO, or CHVs. At times, the repetitive nature of the forms may lead to challenges with data quality. Continuing to review data elements and keeping only data that are useful and focusing on outcomes will be important.

Impressive data management systems have been put in place, including data quality and supportive supervision. The review of data is often related to the quality of data, though there could be a more systematic approach to use data generated to conduct case review. In Kenya, data measuring service quality, referrals made, and referrals completed were lacking. A routine monitoring system is not the best source for quality of service data; thus, another source, such as period surveys, should be sought. To facilitate referrals, activities to improve coordination between partners are needed.

This case study from Kenya, when combined with findings from the Tanzania and Zambia case studies, will yield insights into information systems for community-based programs. Findings will discuss different models of community-based M&E systems; how they are developed; what indicators are the most useful at the community level; how data are used; successful strategies for collecting, storing, and analyzing data; strategies for building capacity for M&E; and the effect of changes, either externally or internally driven, to the system.

Acronyms

APHIAplus	AIDS, Population and Health Integrated Assistance
AACs	Area Advisory Councils
CHV	Community Home Visitors
CBO	Community Based Organization
CDF	Constituency Development Fund
CHW	Community Health Worker
CPMIS	Child Protection Management Information System
CSI	Child Status Index
DQA	Data Quality Assurance
FGD	Focus Group Discussions
GOK	Government of Kenya
HBC	Home Based Care
HH	Household
KePMS	Kenya HIV/AIDS Program Monitoring System
LAACs	Local Area Advisory Councils
M&E	Monitoring and Evaluation
OLMIS	OVC Longitudinal Management Information System
OVC	Orphans and Vulnerable Children
PEPFAR	President's Emergency Plan for AIDS Relief
PMP	Performance Monitoring Plan
SOP	Standard Operating Procedures
SQL	Structured Query Language
TWG	Technical Working Group
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VCO	Volunteer Children's Officers

USAID FROM THE AMERICAN PEOPLE PEPFAR MEASURE Evaluation

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Appendix A

USAID FROM THE AMERICAN PEOPLE APHIA PLUS NURU YA BONDE

OVC Status and Service Monitoring Form [1A]

Organization Name: _____

Name of Guardian/Parent:- First _____Middle:_____Last: ___

Name of CHV:- First _____Middle:_____Last: _____

	Core services	Frequency of collection	Status of OVC [Child] and Services provided directly by Projector/CBO or through Advocacy, Linkages and Complete Referrals	Month 3 First Name / Middle Name / Last Name	Code	Date ___/___/___ (dd/mm/yyyy)	Month 2 First Name / Middle Name / Last Name	Code	Date ___/___/___ (dd/mm/yyyy)	Month 1 First Name / Middle Name / Last Name	Code	Date ___/___/___ (dd/mm/yyyy)
1	Child health and nutrition status assessment and service provision				Health			Health			Health	
	Assessment	M	Child is sick		HC1a			HC1a			HC1a	
		M	Mosquito net not available		HC2a			HC2a			HC2a	
		M	Does not sleep under mosquito net		HC3a			HC3a			HC3a	
		M	Not fully immunizede *[5 yrs only]*		HC4a			HC4a			HC4a	
		A	HIV status not known		HC5a			HC5a			HC5a	
		M	Growth is not monitored [5 yrs only]		HC6a			HC6a			HC6a	
		M	HIV+ child not linked to care and treatment		HC7a			HC7a			HC7a	
	Services	M	Treated for illness		HC1s			HC1s			HC1s	
		M	Mosquito net provided		HC2s			HC2s			HC2s	
		M	Tested for HIV		HC3s			HC3s			HC3s	
		M	Provided with deworming tablets		HC4s			HC4s			HC4s	
		M	Provided with transport to care and treatment services		HC5s			HC5s			HC5s	
		M	Escorted to care and treatment		HC6s			HC6s			HC6s	
		M	support		HC7s			HC7s			HC7s	
		M	Provided with health and nutrition education		HC8s			HC8s			HC8s	
		M	Provided with supplementary feeding		HC9s			HC9s			HC9s	
		M	Provided with vitamin A		HC10s			HC10s			HC10s	
2	Child shelter and care status assessment and service provision				Shelter and care			Shelter and care			Shelter and care	
	Assessment	M	Not cared for by an adult caregiver		SC1a			SC1a			SC1a	
		M	Does not sleep in a dry safe place		SC2a			SC2a			SC2a	
		S	Has no blanket		SC3a			SC3a			SC3a	
		S	Has no mattress		SC4a			SC4a			SC4a	
		S	Has no home clothes		SC5a			SC5a			SC5a	
	Services	M	Received mattress		SC1s			SC1s			SC1s	
		M	Received shoes		SC2s			SC2s			SC2s	
		M	Received blanket		SC3s			SC3s			SC3s	
		M	Household repaired		SC4s			SC4s			SC4s	
3	Child protection status assessment and service provision				Protection			Protection			Protection	
	Assessment	M	Has signs of abuse		PT1a			PT1a			PT1a	
		M	Not aware of rights and responsibilities		PT2a			PT2a			PT2a	
		M	Not aware of where to get appropriate help		PT3a			PT3a			PT3a	
	Services	M	Provided with birth certificate		PT1s			PT1s			PT1s	
		M	Rescued from an abusive environment		PT2s			PT2s			PT2s	
		M	Has been re-united with family		PT3s			PT3s			PT3s	
		M	Provided with age appropriate information on rights/responsibilities		PT4s			PT4s			PT4s	
		M	Provided with legal assistance in cases of abuse		PT5s			PT5s			PT5s	
4	Child psychosocial support status assessment and service provision				Psychosocial support			Psychosocial support			Psychosocial support	
	Assessment	M	Does not interact freely with others		PS1a			PS1a			PS1a	
		M	Sad or withdrawn		PS2a			PS2a			PS2a	
	Services	M	Mentored by older or responsible person		PS1s			PS1s			PS1s	
		M	Actively involved in support group or peer club		PS2s			PS2s			PS2s	
		M	Provided with life skills		PS3s			PS3s			PS3s	
		M	Provided with general counseling to address needs		PS4s			PS4s			PS4s	
5	Child education status assessment and service provision				Education			Education			Education	
	Assessment of attendance & enrollment	A	Not enrolled in school		E1a			E1a			E1a	
		M	Missed school for less than 5 days in past month		E2a			E2a			E2a	
		M	Missed school for more than 5 days in past month		E3a			E3a			E3a	
	Assessment of reasons for not attending school	M	Sickness		E4a			E4a			E4a	
		M	Distance is too far from home		E5a			E5a			E5a	
		M	Lacks scholastic materials		E6a			E6a			E6a	
		M	Lacks school fees		E7a			E7a			E7a	
		M	Lacks school levies		E8a			E8a			E8a	
		M	Child does not want to go to school		E9a			E9a			E9a	
		M	Lack of parental follow up		E10a			E10a			E10a	
		M	Taking care of sick household member		E11a			E11a			E11a	
		M	Lacks sanitary pads		E12a			E12a			E12a	
	Assessment of progresss	A	Progress from one class/form to another		E13a			E13a			E13a	
		S	Needs vocational skills training		E16a			E16a			E16a	
	Services	M	Enrolled back to school		E1s			E1s			E1s	
		M	School fees paid		E2s			E2s			E2s	
		M	School levies paid		E3s			E3s			E3s	
		M	School uniform provided		E4s			E4s			E4s	
		M	Scholastic materials provided		E5s			E5s			E5s	
		M	Sanitary towels provided		E6s			E6s			E6s	
		M	Supported with vocational training and attending classes		E7s			E7s			E7s	
6	Child household economic strengthening status assessment and				Economic			Economic			Economic	
	Assessment	A	Vocational skills graduate and require a start-up kit		HE1a			HE1a			HE1a	
	Services	S	Received a start-up kit		HE1s			HE1s			HE1s	
		M	Financial education and literacy training *[LIFE POA]*		HE2s			HE2s			HE2s	
		S	Linked to a job opportunity		HE3s			HE3s			HE3s	
			Critical events: (Codes: Child pregnant [1]; Change		Critical event			Critical event			Critical event	

Appendix A *continued*

Assessment of Critical events and priority needs	M	in caregiver [2]; Change in living location [3]; and Others [4])			
	May & Nov	Priority needs: (List the 3 priority needs only in the month of May and November in order of priority as assessed by CHV/reported by child/parent/guardian)	Priority needs 1] 2] 3] # of HH visits:_____ CHV signature: _____ Guardian/ Parent signature: _____	Priority needs 1] 2] 3] # of HH visits:_____ CHV signature: _____ Guardian/ Parent signature: _____	Priority needs 1] 2] 3] # of HH visits:_____ CHV signature: _____ Guardian/ Parent signature: _____

Revised: Feb 14' *Revised: Feb 14'* *Revised: Feb 14'* *Revised: Feb 14'*

Appendix B

Caregiver Status and Service Monitoring Form [1B]

Organization Name: _____

Caregiver First Namer _____**Middle:**_____ **Last:** _____

CHV First Name _____ **Middle:**_____ **Last:** _____

	Core services	Codes	Status of caregiver and services provided directly by project or CBO; or through advocacy or linkages and complete referrals. This form should be filed only in the months of Jan, Apr, Jul & Oct.	Date of visit: ___/___/___ (dd/mm/yyyy)
1	**Caregiver health and nutrition status assessment and service provision**			**[Tick ✔]**
	Assessment	HG1a	Is unwell (sickly)	
		HG2a	Is not a member of a health insurance plan e.g NHIF	
		HG3a	Household not treating water before drinking	
		HG4a	Household has no access to a functional latrine/toilet	
		HG5a	Household not using functional latrine/toilet	
		HG6a	Household not using a hand washing facility	
		HG7a	Household has no kitchen garden that is productive	
		HG8a	HIV+ caregiver did not attend last CCC appointment	
	Services	HG1s	Provided with information about health insurance	
		HG2s	Registered in a health insurance plan	
		HG3s	Provided with water treatment kit	
		HG4s	Household provided with handwashing facility	
		HG5s	Provided with Health and nutrition education	
		HG6s	Provided with farm inputs including seedlings, tools, kits	
		HG7s	Provided with small stock e.g rabbits, poultry or goats	
		HG8s	Provided with food aid	
		HG9s	Provided with information on hygine, sanitation and water treatment	
		HG10s	Provided with transport to care and treatment services	
		HG11s	Escorted to care and treatment	
		HG12s	Access care and treatment without transport/escort support	
2	**Caregiver shelter and care service provision**			
	Services	SC1s	Trained on child care and parenting skills	
3	**Caregiver protection service provision**			
	Services	PG1s	Provided with information on child abuse and neglect	
		PG2s	Enrolled in social protection program e.g Cash transfer	
		PG3s	Provided with information on importance of legal documents e.g ID, title, death cert	
4	**Caregiver psychosocial support service provision**			
	Services	PSG1s	Provided with counseling	
		PSG2s	Supported to disclosed status to child/partner	
		PSG3s	Recived adherence to care and treatment counseling	
		PSG4s	Caregiver is an active member of a support group	
5	**Caregiver education status assessment and service provision**			
	Services	EG1s	Participates in childs education through assistance with homework & tracks child's progress	
		EG2s	Attends adult Literacy classes	
6	**Child household economic strengthening status assessment and service**			
	Assessment	HE1a	Engaged in an economic stregthening activity (SILC, GSL, VSL, IGA, table banking)	
	Services	HE1s	Engaged in either SILC, GSL, VSL, IGA, table banking group	
		HE2s	Engaged in financial literacy and education training (JIFANIKISHE)	
		HE3s	Provided with business skills training	
		HE4s	Linked to MFI	
		HE5s	Linked to market	
		HE6s	Linked to UWEZO and other Enterprise Funds	
		HE7s	Received economic stregthening assets (greenhouse, beehives)	

Assessment of Critical events and priority needs	**Priority needs [List the 3 priority needs only in the month of May and November in order of priority as assessed by CHV/reported by child/parent/guardian]**	**Critical event [OVC died, Change in living location or Others specify___]**
	1]	**1]**
	2]	
	3]	

Number of household visits in the month: _____ **CHV signature:** _____

Guardian/ Parent signature: _____ **IP/CBO leader signature:** _____

Revised: Feb 14'