

Monitoring the Outcomes of Orphans and Vulnerable Children Programs in Kenya Findings from 2016–2018 Panel Data Walter Reed Program/Henry M. Jackson Foundation Medical Research International

September 2019







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Irit Sinai, PhD Clement O. Odour, MA Dennis Akeyo, MSc Cheikh M. Faye, MSc Damazo T. Kadengye, PhD Nelson Langat, MSc

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MEASURE Evaluation University of North Carolina at Chapel Hill 123 West Franklin Street, Suite 330 Chapel Hill, North Carolina 27516 USA Phone: +1-919-445-9359 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-I-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-19-376

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ABBREVIATIONS

ART	antiretroviral therapy
ARV	antiretroviral
CHV	community health volunteer
CI	confidence interval
ESI	essential survey indicator
GBV	gender-based violence
KDHS	Kenya Demographic and Health Survey
KNBS	Kenya National Bureau of Statistics
LIP	local implementing partner
MER	Monitoring, Evaluation, and Reporting
MUAC	mid-upper arm circumference
N/A	not applicable
OVC	orphans and vulnerable children
PEPFAR	United States President's Emergency Plan for AIDS Relief
USAID	United States Agency for International Development
WRP/HJFMRI	Walter Reed Program/Henry M. Jackson Foundation Medical Research International

EXECUTIVE SUMMARY

This report presents findings from a panel study of beneficiary households receiving services from the Walter Reed Program/Henry M. Jackson Foundation Medical Research International (WRP/HJFMRI) project. WRP/HJFMRI is a United States President's Emergency Plan for AIDS Relief (PEPFAR) project funded through the United States Department of Defense. The WRP/HJFMRI orphans and vulnerable children (OVC) program began in 2004 and operates in Bomet, Kericho, and Narok Counties in the Rift Valley region. Key OVC program areas and intervention components of the project are education support, household economic strengthening, healthcare and nutrition, shelter, psychosocial care and support, and child protection services. This study was undertaken by MEASURE Evaluation—a project funded by the United States Agency for International Development (USAID) and PEPFAR—at the request of PEPFAR and the USAID Kenya mission. This 2016–2018 panel study was designed to meet PEPFAR's monitoring, evaluation, and reporting (MER) requirements, which include standard indicators. PEPFAR encourages the collection of data on these indicators every two years (MEASURE Evaluation, 2014).

The panel study compared results from Round 1 (2016) and Round 2 (2018, with the same households). It measured changes in the well-being of OVC beneficiaries over the two years using nine essential survey indicators (ESIs) required by PEPFAR and two supplemental indicators.

Three hundred and fifty-three households were interviewed during the Round 1 survey. They were revisited for the Round 2 survey, with only 329 successfully reinterviewed (93.2 % response rate). For the most part, the ESI results showed improvements in the well-being of beneficiary children and their households from 2016 to 2018, with most indicators showing improvements. Table 1 summarizes the findings.

OVC MER ESIS	Number of observations: child/caregiver records ¹	Round 1 (2016) Percent (95% confidence interval [CI])	Round 2 (2018) Percent (95% CI)	p value²
OVC_SICK : Percent of children (aged 0–17 years) too sick to participate in daily activities	R1: 1034 ³ R2: 987	18.9 (15.6–22.3)	15.8 (12.6–19.0)	0.134
OVC_HIVST : Percent of children (aged 0–17 years) whose primary caregiver knows the child's HIV status	R1: 1034 R2: 987	64.5 (59.6–69.4)	71.8 (67.2–76.6)	0.014
OVC_NUT : Percent of children (aged 6–59 months) who are undernourished	R1: 82 R2: 80	2.8 (0.0–7.0)	0.9 (0.0–2.8)	0.322

Table 1. Summary of PEPFAR MER OVC ESI results for Round 1 (2016) and Round 2 (2018) for WRP/HJFMRI

OVC MER ESIs	Number of observations: child/caregiver records ¹	Round 1 (2016) Percent (95% confidence interval [Cl])	Round 2 (2018) Percent (95% CI)	p value ²
OVC_STIM : Percent of children < 5 years of age who recently engaged in stimulating activities with any household member over 15 years	R1: 964 R2: 98	85.3 (76.6–93.9)	83.5 (75.2–91.7)	0.772
OVC_BCERT : Percent of children (aged 0–17 years) who have a verified birth certificate	R1: 1034 R2: 987	17.7 (14.0–21.4)	26.1 (21.8–30.4)	0.001
OVC_SCHATT : Percent of children (aged 5–17 years) regularly attending school	R1: 558 R2: 579	74.1 (34.9–79.2)	88.0 (84.6–91.5)	<0.001
OVC_PRGS : Percent of children (aged 5–17 years) who progressed in school during the last year	R1: 869 R2: 839	84.5 (81.4–87.6)	87.2 (84.3–90.0)	0.197
OVC_CP : Percent of caregivers who agree that harsh physical punishment is an appropriate means of discipline or control of children in the home or at school	R1: 329 R2: 329	71.7 (66.8–76.6)	85.1 (81.2–89.0)	<0.001
OVC_MONEY: Percent of households able to access money to pay for unexpected household expenses	R1: 95 R2: 95	8.4 (2.7–14.1)	57.9 (47.8–68.0)	<0.001
OVC_KE1: Percent of children (aged 0–17 years) living with HIV who are taking antiretroviral (ARV) drugs	R1: 90 ⁵ R2: 70	100.0	100.0	N/A
OVC_KE2: Percent of households able to access money to pay for expected household expenses	R1: 329 R2: 329	25.5 (20.8–30.3)	53.5 (48.1–58.9)	<0.001

¹ Number of observations used in the analysis included only households with data in both survey rounds after merging the data.

² Significance test comparing Round 1 and Round 2 using paired t-tests (two-sided).

 3 R1 = Round 1; R2 = Round 2.

⁴ The panel data captured only children ages 0–4 years who were there in 2016 and still in the same age category in 2018. Therefore, only children ages 0–2 years of age whose households were interviewed again in 2018 were captured by these figures.

⁵ N includes all children living in a household in which at least one child is living with HIV, including children who do not have HIV and those whose status is unknown. The number of children living with HIV is smaller.

The study findings have several programmatic implications:

- WRP/HJFMRI should continue to reinforce its existing household economic strengthening strategies. WRP/HJFMRI should put additional focus on community-level activities to change attitudes toward harsh physical punishments.
- 2. Although the OVC indicators on health, education, and legal status improved, there is room for additional improvement. Closer collaboration with government departments, additional sensitization of community health volunteers (CHVs), and increased data use are recommended.

INTRODUCTION

The United States President's Emergency Plan for AIDS Relief is committed to supporting OVC in countries around the world as part of its global effort to assist children affected by the HIV epidemic. Given PEPFAR's considerable investment in OVC programs, in 2014 it introduced the MER ESIs to help track changes over time in the well-being of OVC project beneficiaries and their households. These outcome indicators reflect internationally accepted developmental milestones and ways that OVC programs gain from, and contribute to, broader HIV and child protection responses. PEPFAR encourages collection of data on these indicators every two years (MEASURE Evaluation, 2014).

At the request of PEPFAR and USAID Kenya mission, the USAID- and PEPFAR-funded MEASURE Evaluation project collected the first round of MER ESI data in Kenya in 2016. One of the implementing partners whose beneficiaries were assessed in 2016 was the WRP/HJFMRI project. MEASURE Evaluation conducted the second survey round of WRP/HJFMRI beneficiaries in 2018.

This report compares 2016 and 2018 MER ESI data for beneficiaries who received services from the WRP/HJFMRI. The findings are intended to help the WRP/HJFMRI project better understand changes in the well-being of its beneficiaries from 2016 to 2018, and to support the project, the PEPFAR OVC team, and other program decision makers and stakeholders, including those from the Government of Kenya, to take evidence-informed actions to improve OVC program strategy, resource allocation, and implementation, with the ultimate goal of improving the well-being of the children and households they serve.

The WRP/HJFMRI Project

The WRP/HJFMRI OVC program is part of a larger PEPFAR project led by WRP/HJFMRI and funded by the United States Department of Defense HIV and AIDS program. The OVC program began in 2004 and operates in Bomet, Kericho, and Narok Counties in the Rift Valley region of Kenya. Key OVC program areas and intervention components of the project are education support, household economic strengthening, healthcare and nutrition, shelter, psychosocial care and support, and child protection services. These program areas have remained essentially the same between Round 1 and Round 2 of the panel study, but an HIV-prevention component was added.

Study Objectives

The conceptual model used to define the MER ESIs is the same as in Round 1 (Settergren, Faye, & Beguy, 2018). It assumes that the set of interventions delivered to members of households enrolled in WRP/HJFMRI-supported activities should lead to the improved well-being of children younger than age 18 in the households, as measured by the OVC ESIs. The purpose of this study was to track changes in the OVC ESIs from 2016 to 2018 among OVC beneficiaries and their households served by the WRP/HJFMRI project. The study aimed to support evidence-informed strategy, programming, and resource allocation by Kenyan stakeholders, and contribute to a global PEPFAR-wide evidence base on the effectiveness of PEPFAR OVC programming. The study had the following objectives:

- Assess changes in children's health, nutrition, education, legal rights, and early childhood development between 2016 and 2018. The following indicators were used for this assessment, by domain:
 - Health: percent of children too sick to participate in daily activities.
 - 0 Nutrition: percent of under-five children who are undernourished.

- Education: percent of children regularly attending school, and percent of children who progressed in school during the last year.
- Legal rights: percent of children who have a verified birth certificate.
- Early childhood development: percent of under-five children who recently engaged in stimulating activities.
- Assess changes in caregiver attitudes about harsh physical punishment.
- Assess changes in OVC households' economic resilience (i.e., percent of households able to access money to pay for unexpected household expenses).
- Assess changes in additional indicators of interest to Kenyan stakeholders: percent of children living with HIV who are ARV drugs; percent of households able to access money to pay for expected household expenses.
- Propose recommendations to improve WRP/HJFMRI's project activities and other PEPFAR OVC programs in Kenya.

METHODS

Study Design

This was a panel study that involved two survey rounds: Round 1 (2016) and Round 2 (2018). Round 1 selected a two-stage cluster randomized sample and interviewed caregivers in randomly selected households receiving services from WRP/HJFMRI. Households were selected from a list of all households that were receiving services from the project at the time. Details of the cluster design used in Round 1 are available in the Round 1 report (Settergren, Faye, & Beguy, 2018). Caregivers from 353 households were successfully interviewed in Round 1. In the Round 2 survey, households that were successfully interviewed in Round 1 were revisited for a follow-up interview.

In both rounds, face-to-face interviews were conducted with the primary caregivers of the OVC residing in the selected households. Female and male caregivers of all ages were eligible for the survey. The caregivers were asked questions about themselves, their household, and the children in their care. All children ages up to 17 years (at their last birthday) who slept in the household on the night preceding the interview were considered eligible for the survey and the caregiver was asked questions about each one. This included children who were actively registered as beneficiaries of the project and those who were not. However, registration status was recorded for each child. If the caregiver present in Round 2 was not the one who was interviewed in Round 1, the new caregiver was interviewed. In Round 2, all children were eligible even if they were not part of the household in Round 1. No attempt was made to track children included in Round 1 who were no longer part of the household at the time of the Round 2 interview.

Survey Indicators and Questionnaires

The survey collected data for measuring the nine PEPFAR OVC MER ESIs, which were vetted and selected in 2014 by the global PEPFAR OVC program and strategic information technical leaders (MEASURE Evaluation, 2014). They applied several criteria in their selection, including relevance in the various countries where PEPFAR provides OVC program support and representation of factors amenable to change over a two-year period. The selection criteria and the indicator reference sheets that define the indicators can be found in the MEASURE Evaluation guidance developed for the surveys (MEASURE Evaluation, 2014). Two supplemental indicators were added (OVC_KE1 and OVC_KE2), chosen by the Kenyan PEPFAR team before the first round of data collection in 2016 (Settergren, Faye, & Beguy, 2018). Table 2 lists the 11 indicators.

Indicator reference	Туре	Indicator
ovc_sick	ESI	Percent of children (aged 0–17 years) too sick to participate in daily activities
OVC_HIVST	ESI	Percent of children (aged 0–17 years) whose primary caregiver knows the child's HIV status
OVC_NUT	ESI	Percent of children (aged 6–59 months) who are undernourished
OVC_STIM	ESI	Percent of children <5 years of age who recently engaged in stimulating activities with any household member over 15 years of age
OVC_BCERT	ESI	Percent of children (aged 0–17 years) who have a verified birth certificate

Table 2. PEPFAR OVC	MER ESIs and two su	upplemental indicators
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Indicator reference	Туре	Indicator
ovc_schatt	ESI	Percent of children (aged 5–17 years) regularly attending school
OVC_PRGS	ESI	Percent of children (aged 5–17 years) who progressed in school during the last year
OVC_CP	ESI	Percent of caregivers who agree that harsh physical punishment is an appropriate means of discipline or control of children in the home or at school
OVC_MONEY	ESI	Percent of households able to access money to pay for unexpected household expenses
OVC_KE1	Supplemental	Percent of children (aged 0–17 years) living with HIV who are taking ARV drugs
OVC_KE2	Supplemental	Percent of households able to access money to pay for expected household expenses

Interviews were conducted with caregivers using a standardized questionnaire previously developed by MEASURE Evaluation for the PEPFAR OVC Technical Working Group specifically for the purpose of collecting data for the MER OVC ESIs. The survey questionnaire has three components: (1) caregiver; (2) child ages 0–4 years; and (3) child ages 5–17 years. The survey team made only minor modifications to the standardized questionnaire to adapt it to the Kenyan context and added the supplemental indicators. The questionnaire was translated into Kiswahili, Luhya, and Luo, the primary languages spoken among the project beneficiaries. Minor changes were made to the translations following pilot testing to enhance the clarity of the translations. The English version of the questionnaire used in 2018 (Round 2) is provided in Appendix A. It is identical to the version used in 2016 (Round 1), but with minor modifications needed for a panel study, such as asking caregivers whether they were the same ones interviewed for the household in 2016.

Ethics Review and Compliance for the Study

Institutional review board approval for the Round 1 protocol was granted in 2016 by the AMREF Health Africa Ethics and Scientific Review Committee, Kenya, and the Health Media Lab, United States. The same institutional review boards approved the protocol for Round 2 in 2018. All study activities adhered strictly to United States., Kenya, and international research ethics guidelines, including the Code of Federal Regulations, part 45CFR46, and the Council for International Organizations of Medical Sciences. Participation in the study was completely voluntary, based on a consent form. Interviews were undertaken in the caregivers' homes, in areas where the conversation could not be observed or overheard by persons outside the household, and where interruptions could be minimized. Maintaining the privacy and confidentiality of respondents was paramount.

Fieldwork for Round 2

MEASURE Evaluation worked closely with the African Population and Health Research Center to implement the survey rounds in 2016 and 2018. Data collection for Round 2 followed similar procedures used in Round 1.¹ It was undertaken between October 29 and November 17, 2018, by a team of trained data collectors comprising a field coordinator, two field supervisors, and eight field interviewers. The team worked with the WRP/HJFMRI's local implementing partners (LIPs) to locate the selected households

¹ Information on Round 1 fieldwork is available in Settergren, Faye, & Beguy, 2018.

using information obtained from the 2016 survey data, (e.g., village, name of the CHV assigned by the LIP to support the household, and the caregiver's name and telephone number). The CHVs or other LIP staff accompanied the data collection team to the household and facilitated introductions. However, they left the household before the field interviewer started the consent process for the interviews to maintain confidentiality and avoid coercion to participate.

As in Round 1, informed consent was sought by field interviewers from all participating OVC caregivers before they were interviewed for Round 2. All participating caregivers were adults ages 18 years and above. They were asked to consent to their own participation and to provide assent for mid-upper arm circumference (MUAC) measurement of children ages 6–59 months in their care. Respondents who consented to participate signed a soft copy of the informed consent form on a password-protected Android tablet and a hard-copy duplicate informed consent form, which was left with them.

Responses from survey participants were captured electronically on password-protected Android tablets preprogrammed with the survey questionnaire using the SurveyCTO software. The electronic data capture tool mirrored the paper questionnaire, which is provided in Appendix A, and presented one question per screen. Instructions were included in the tool to guide the interviewers and to facilitate the interview flow. Skip logic was built in and error messages and caution notices were triggered when faulty or out-of-range data were entered to alert the field interviewers to correct any errors at the point of data collection. Caregivers were interviewed in a quiet and private location out of earshot of others, including children and other family members. MUAC measurements of children ages 6–59 months were obtained in the presence of their caregivers. At least three attempts were made to conduct interviews with caregivers who were temporarily absent from the household at the time of the first visit to their households.

The field team met after each day's work to review the experiences of the day and to plan for the following day. All completed interviews were reviewed daily by the field supervisors, and any errors encountered were referred back to the field interviewers for correction before the data were approved for transmission to the African Population and Health Research Center database server. Daily checks were done on the data based on a predesigned data cleaning script in Stata 15 that included checks for structure, uniqueness, and external consistency of key identifiers; completeness of the data; acceptable data; and unexpected data. An inconsistency report from the database was then generated and shared with the field team daily. Immediate action/correction (e.g., reinterview, revisit to households for confirmation) was undertaken by the field teams to correct the inconsistency before the data were resubmitted.

Data Processing and Analysis

When data collection for Round 2 was completed, additional checks were done on the full data file by the survey's Data Analyst. Only minimal edits were required because real-time data cleaning was continuously done during data collection. On completion of these checks, a clean version of the data was merged with Round 1 data for analysis. The analytical files included data dictionaries with variable labels, value labels, and other standard specifications. Detailed metadata reports were also generated using Nesstar software. Missing data were minimal, so there was no need for data imputation.

Data for Round 1 and Round 2 were merged at the household level. Only households that were interviewed in both rounds were included in the panel analysis. Because all children in the care of the primary caregiver were included in the study at each round, it was possible that the children (and the number of children) in a given household differed between the two rounds. For example, some children included in the Round 1 interviews aged out of the program (i.e., were over 18 year of age in 2018) or had left the household for other reasons; others were born into participating households in the intervening two

years, or otherwise joined the household. Therefore, results presented in this report for Round 1 differ from those presented in the Round 1 report (Settergren, Faye, & Beguy, 2018).

Because the different rounds sometimes captured responses from different children in the household, we used household averages rather than individual-level data in the panel analysis. This approach was developed by the MEASURE Evaluation project and has been used for MER ESI Round 2 surveys it has implemented in other countries. The averages were calculated differently for disaggregated data (by sex or age). This was done separately for 2016 and 2018. The resulting data had one record per household, with a 2016 and a 2018 value for each indicator. Table 3 shows an example.

	Gender	2016		2	2018				
		Age	Indicator value	Age	Indicator value				
Child 1	Female	1	Yes	3	Yes				
Child 2	Male	3	No	5	Yes				
Child 3	Male	6	No	8	Yes				
Child 4	Female	11	No	13	No				
Child 5	Male	14	Yes	16	Yes				
Child 6	Male	17	No	19*	N/A				
Assuming Yes	= 1 No = 0, †r	ne household value	e for the indicator w	vas calculated as t	follows:				
<u>2016</u>			2018						
All children: (1+0+0+0+1+0)/6 = 0.33			All children: (1+1+1+0+1)/5 = 0.8						
Females: (1+0)/2 = 0.5			Females: (1+0)/2 = 0.5						
Males: (0+0+1+0)/4 = 0.25		Males: (1+1+0)/3 = 0.67				Males: (1+1+0)/3 = 0.67			
Ages 0-4: (1+0)/2 = 0.5			Ages 0-4: 1				Ages 0-4: 1		
Ages 5–17: (0+0+1+0)/4 = 0.25			Ages 5–17: (1+1+0+1)/4 = 0.75						

Table 3. Example of indicator household average calculation

*The 19-year-old child is no longer in the study

In the presentation of MER ESI results, we show figures only for those households that were included in both rounds, using household averages. However, the background characteristics (age, sex, education) are shown for all respondents in both rounds. For the disaggregation of indicators by sex and/or age, panel data were created for each sex and/or age combination, by first creating subsets of each dataset from the two surveys using the desired disaggregation. For example, if indicators were required for males and females separately for beneficiary children ages 0-4 years, then a subset of data was created for Rounds 1 and 2 surveys separately for all males ages 0-4 years. Then panel data were created by merging the two subsets of datasets together (Round 1 and Round 2 datasets) at the household level. The resulting panel data for analysis then contain only male children ages 0-4 years from the two datasets that successfully merged. Note that if a household had more than one child (two or more children) in this age group, and some responses were ves and some were no, this record would become a proportion, (i.e., an average between 0 and 1 [0-No; 1-Yes]), of the responses in that household. The two datasets were merged by household identification to create the panel data. If, during the Round 2 survey, a household did not have a male child ages 0-4, then this household would be excluded from the male ages 0-4 analysis. The same applied to other age groups and to sex disaggregation. It is therefore important to be aware that specific counts for age and sex for each age group (0-4, 5-9, 10-14, and 15-17) in the respective rows in the tables are independent, based on the way the data panels were constructed, and these specific age group counts should not add up to the overall totals for all ages 0–17 years combined.

The following analyses for each ESI were then performed, using Stata 15:

- Point estimates (proportions) were calculated for the two rounds (for those households that responded at both time points) as specified in the MEASURE Evaluation guidance document (MEASURE Evaluation, 2014) using the merged panel dataset.
- Confidence intervals (CIs) (95%) around the point estimates were derived.
- Differences in proportions between the two survey rounds were tested using two-sided paired ttests under the null hypothesis of no difference between the two proportions. Pairing was at the household level.

Response Rate

Of the 353 OVC households interviewed in Round 1, a total of 329 households were successfully interviewed in Round 2, representing 93.2 percent of the total households sampled in Round 1. As shown in Table 4, the field team, working with the CHVs, could not trace five households because they were unknown to the LIP- assigned CHV or the local guide. In the remaining 19 households, the caregivers could not be interviewed for a variety of reasons, such as the caregiver being away for an extended period or permanent relocation of the household.

Caregory	Number	
	Round 1 (2016)	Round 2 (2018)
Households served by the WRP/HJFMRI OVC program (based on project listing)	1617	308,447
Households in the survey sample (selected for Round 1 interview from the project listing)	477	353
Sampled households (or caregivers) unknown to the LIP- assigned CHV or the local guide	29	5
Percentage of sampled households not matching the project	6.1%	0
listing	(29/477)	(0/353)
Household permanently moved out of the survey area	42	0
Caregiver reported to be temporarily away from the household for an extended period	13	0
Caregiver residing at the sampled household but could not be located for an interview after three attempts	28	7
Caregiver refused an interview	12	4
Total number of sampled households where an interview was not conducted (household nonresponse)	124	13
Households with successfully completed interviews	353	329
Response rate	74.0%	93.2%
	353/477	329/353

Table 4. Household response rates in the WRP/HJFMRI survey, by survey round¹

¹ This table presents the data in absolute numbers before creating a panel.

Table 5 shows the number of caregivers interviewed and their corresponding number of children during the two survey rounds.

Sample information	Number			
	Round 1 - 2016 ²	Round 2 - 2018		
Number of caregivers interviewed ("caregiver" questionnaire completed)	353	329		
Number of children ages 0-4 years on which caregivers responded	171	140		
Number of children ages 5–17 years on which caregivers responded	965	886		
Total number of children on which caregivers responded	1,136	1,026		
Average number of children on which caregivers responded, by household	3.2	3.4		

Table 5. Questionnaires completed and other sample information¹

¹ This table presents the data in absolute numbers before creating a panel.

² During the first three days of data collection for Round 1, caregivers were only interviewed about children registered with the program because of a misunderstanding about the protocol. Thereafter, caregivers were interviewed about all eligible children under their care (those registered and those not registered).

RESULTS

Background Characteristics

Caregivers

The majority of the caregivers who were successfully interviewed in both survey rounds were female (81.3% in Round 1 and 83.0% in Round 2) (Table 6). All caregivers interviewed in both rounds were adults ages 18 years or more, whereas in Round 1 one minor caregiver was interviewed. However, that caregiver was not interviewed in Round 2, and therefore is not included in our results. As expected, on average, caregivers in Round 2 were about two years older than in Round 1. Table 6 presents the age and sex of caregivers, by survey rounds.

Variables	Round 1 (N=377)		Round 2 (N=377)	
Valiable 3	n	% (95% CI)	n	% (95% CI)
Sex				
Female	287/353	81.3 (77.2–85.4)	273/329	83.0 (78.9–87.0)
Male	66/353	18.7 (14.6–22.8)	56/329	17.0 (13.0–21.1)
Age (years)				
<18	-	-	-	-
18–30	62/353	17.6 (13.6–21.5)	50/329	15.2 (11.3–19.1)
31–50	189/353	53.5 (48.3–58.7)	172/329	52.3 (46.9–57.7)
51+	102/353	28.9 (24.2–33.6)	107/329	32.5 (27.5–37.6)

Table 6. Age and sex of caregivers, by survey round¹

¹ This table presents the data in absolute numbers before creating a panel.

The proportion of caregivers who reported ever attending school was similar in both rounds: 81.0 percent in Round 1 and 81.8 percent in Round 2 (Table 7). The proportion was higher among male caregivers (87.9% in Round 1 and 91.1% in Round 2) compared with females (79.4% in Round 1 and 79.9% in Round 2), with no statistically significant differences between the rounds. Among those who ever attended school, primary school was the highest level among the majority of the caregivers in both rounds. Table 7 presents details on the caregivers' education, by survey round.

Education		Round 1			
	n / N	% (95% CI)	n / N	% (95% CI)	
Female caregivers					
Ever attended	228/287	79.4 (74.8–84.1)	218/273	79.9(75.1–84.6)	0.904
Highest level attended					
Preprimary	0/228	0.0	1/218	0.5 (0.0–1.4)	0.306
Primary	195/228	85.5 (81.0–90.1)	189/218	86.7 (82.2–91.2)	0.721
Secondary	29/228	12.7 (8.4–17.0)	26/218	11.9 (7.6–16.2)	0.799
College/University	1/2282	1.8 (0.1–3.5)	2/218	0.9 (0.0–2.2)	0.443
Male caregivers					
Ever attended	58/66	87.9 (80.0–95.8)	51/56	91.1 (83.6–98.5)	0.569
Highest level attended					
Preprimary	0/58	0.0	0/51	0.0	-
Primary	36/58	62.1(49.6–74.6)	30/51	58.8 (45.3–72.3)	0.729
Secondary	19/58	32.8 (20.7–44.8)	19/51	37.3 (24.0–50.5)	0.623
College/University	3/58	5.2 (0.0–10.9)	2/51	3.9 (0.0–9.2)	0.755
Both sexes					
Ever attended	286/353	81.0 (76.9–85.1)	269/329	81.8 (77.6–85.9)	0.803
Highest level attended					
Preprimary	0/286	0.0	1/269	0.4 (0.0–1.1)	0.302
Primary	231/286	80.8 (76.2–85.3)	219/269	81.4 (76.8–86.1)	0.845
Secondary	48/286	16.8 (12.5–21.1)	45/269	16.7 (12.3–21.2)	0.986
College/University	7/286	2.4 (0.7–4.2)	4/269	1.5 (0.0–2.9)	0.417

Table 7. Caregivers' educational background, by survey round¹

¹ This table presents the data in absolute numbers before creating a panel.

²The grade levels of three caregivers are unknown.

Children

Overall, approximately one-half of the children living under the care of the caregivers interviewed were female in both rounds. The age distributions of the children were also similar across both sexes in the two survey rounds. The highest proportion of children represented in the surveys were those ages 10–14 years, constituting 35.0 percent in Round 1 and 38.2 percent in Round 2. Table 8 presents the distribution of the children, by sex and age.

Child's ago (yoars)	R	ound 1	R	ound 2		
Child's dge (years)	n / N	% (95% CI)	n / N	% (95% CI)	pvalue	
Sex						
Females	571/1136	50.3 (47.4–53.2)	514/1026	514/1026	0.938	
Males	565/1136	49.7 (46.8–52.6)	512/1026	49.9 (46.8–53.0)	0.938	
Age						
0-4	171/1136	15.1(13.0–17.1)	140/1026	13.7 (11.5–15.7)		
0–5 months	17/1136	1.5 (0.8–2.2)	11/1026	1.1 (0.4–1.7)		
6–11 months	0/1136	0.0	7/1026	0.7 (0.2–1.2)		
12–23 months	28/1136	2.5 (1.6–3.4)	15/1026	1.5 (0.7–2.2)		
2–4 years	126/1136	11.1(9.3–12.9)	107/1026	10.4 (8.6–12.3)		
5–9	312/1136	27.5 (24.9–30.1)	283/1026	27.6 (24.8–30.3)		
10–14	397/1136	35.0 (32.2–37.7)	392/1026	38.2 (35.2–41.2)		
15–17	256/1136	22.5 (20.1–25.0)	211/1026	20.6 (18.1–23.0)		
All ages	1136/1136	100.0	1026/1026	100.0		

Table 8. Characteristics of children, by survey round

OVC Graduation

Some of the OVC households supported in 2016 were no longer receiving support in 2018 because they were deemed to be no longer vulnerable, having received sufficient support (the household "graduated" from the program). Overall, 21 households interviewed at both points in time had graduated between 2016 and 2018, representing 6.3 percent of participating households in the panel. They are included in the results presented in this report.

OVC Services Received

Caregivers were asked whether they had ever personally participated in program activities or received services from the WRP/HJFMRI project in 2016 and 2018. They were also asked whether they had participated in or received services in the six months preceding each survey round. As shown in Table 9, overall, there was a significant increase in caregivers who reported that they had ever participated in program activities or received services from the OVC project or the LIP associated with it (67.8% in Round 1 and 83.3% in Round 2). The difference was statistically significant, p < 0.01. Similarly, there was a significant increase (p < 0.01) among female caregivers (69.8% in Round 1 versus 85.1% in Round 2), compared with male caregivers, whose proportion only increased slightly (64.6% in Round 1 versus 77.1% in Round 2). Overall, the percentage of caregivers who reported having received at least one service from the OVC project in the six months preceding their interviews increased slightly, from 35.9 percent in Round 1 to 38.6 percent in Round 2. By sex, there was only a slight increase for both female caregivers (37.0% in Round 1 versus 42.0% in Round 2), whereas for the male caregivers, there was a slight decrease (31.3% in Round 1 versus 25.0% in Round 2). These results are shown in Table 9.

Careaivers	n / N	Round 1	Round 2	n value
		% (95% CI)	% (95% CI)	praioc
Female caregivers ¹				
Ever received services	262	69.8 (64.3–75.4)	85.1(80.8–89.5)	<0.001
Received services in the past six months		37.0 (31.1–42.9)	42.0 (36.0–48.0)	0.230
Male caregivers				
Ever received services	48	64.6 (50.5–78.6)	77.1(64.8–89.4)	0.083
Received services in the past six months		31.3 (17.6–44.9)	25.0 (12.3–37.7)	0.444
Both sexes				
Ever received services	329	67.8 (62.7–72.9)	83.3 (79.2–87.3)	<0.001
Received services in the past six months		35.9 (30.7–41.1)	38.6 (33.3–43.9)	0.446

Table 9. Caregivers' reports of their OVC project participation or receipt of OVC project services, by sex and survey round

¹ Only households that had a female caregiver in both rounds were included, so the N value for both sexes is not the sum of the N values of subgroups.

Caregivers who reported participating in or receiving services in the six months before the survey were asked whether they or another member of their household had received each of the ten types of services provided by WRP/HJFMRI in Round 1 and Round 2. Only six of the ten services were included in Round 1. The four services that were added during the Round 2 survey were: HIV testing and counselling, referral to antiretroviral therapy (ART), support for disclosing HIV status, and referral to gender-based violence (GBV) services. A summary of the results is shown in Table 10. Overall, there was a decline in the proportion of caregivers who reported receiving any of the six services that they had been asked about in both survey rounds. Although psychosocial counselling, health or nutrition, and education were the most commonly reported services by the majority of the caregivers in both survey rounds, a significant decline was noted for psychosocial counselling (31% to 17.6%, p<0.01) and education (25.8% to 18.8%, p<0.05). On the other hand, health or nutrition decreased only slightly, from 28 percent to 26.4 percent. As for the additional services introduced in Round 2, HIV testing and counselling was the most frequently reported service (28%), followed by support for disclosing HIV status (10.9%), then by referral to ART (4.9%). Referral to GBV services was the least reported service, with only 2.4 percent of the caregivers reporting having received this service in the six months preceding the Round 2 survey.

Table 10. Caregivers' reports of the	types of services received	through the WRP/HJFMRI
project in the past six months		

Type of service $(n=329)$	Round 1	Round 2	n value
	% (95% CI)	% (95% CI)	
Psychosocial counselling	31.0	17.6	<0.001
	(26.0–36.0)	(13.5–21.8)	
Health or nutrition	28.0	26.4	0.650
	(23.1–32.8)	(21.7–31.2)	

Type of service (n=329)	Round 1	Round 2	
	% (95% CI)	% (95% CI)	pvalue
Education	25.8	18.8	0.019
	(21.1–30.6)	(14.6–23.1)	
Shelter	11.2	5.5	0.007
	(7.8–14.7)	(3.0–7.9)	
Household economic strengthening	10.3	7.3	0.158
	(7.0–13.6)	(4.5–10.1)	
Legal and social protection	7.0	6.1	0.648
	(4.2–9.8)	(3.5–8.7)	
HIV testing and counselling	N/A ¹	28.0	N/A
		(23.1–32.8)	
Referral to ART	N/A ¹	4.9	N/A
		(2.5–7.2)	
Support for disclosing HIV status	N/A ¹	10.9	N/A
		(7.6–14.3)	
Referral to GBV services	N/A ¹	2.4	N/A
		(0.8–4.1)	

¹ Caregivers were not asked about these services in Round 1.

PEPFAR MER OVC Essential Services Indicators

Results for the ESIs were disaggregated by sex and age following PEPFAR's MER requirements. For each indicator, the denominator (N), indicator estimate (%), and 95% CIs (lower and upper limits) are provided in a table format. A significance test comparing Round 1 and Round 2 estimates was also computed for each indicator. The findings are organized by the dimensions of OVC well-being that were measured. In the following tables, the N is the number of children in a given category. The round comparisons and p values are based on the proportions derived from household-level aggregated proportions of a given indicator (where proportions of each household were based on the number of children in that household), and not strictly based on the number of households.

Health

OVC_SICK: Percent of children (aged 0–17 years) too sick to participate in daily activities

Caregivers were asked whether the children in their care had been too sick to participate in daily activities at any time in the two weeks before the survey. The results presented in Table 11 show a slight (not statistically significant) decline between Round 1 and Round 2 estimates among children ages 0–17, from

18.9 percent to 15.8 percent, respectively. By sex, the decline was statistically significant among all male children (22.6% to 15.6%, p<0.05), whereas for females, there was only a slight decline (18.7% to 14.3%, p<0.5).

Child's age (years)	N	Round 1	Round 2	n value
		% (95% CI)	% (95% CI)	praioc
Females				
0-4	R1: 42	31.4	12.9	0.030
	R2: 42	(15.8–47.1)	(1.6–24.1)	
5–9	R1: 102	14.7	12.7	0.719
	R2: 94	(7.0–22.3)	(5.1–20.3)	
10–14	R1: 144	17.6	13.0	0.281
	R2: 146	(10.5–24.8)	(7.1–18.9)	
15–17	R1: 52	21.3	19.1	0.799
	R2: 56	(9.5–33.0)	(7.9–30.4)	
All formation of the state of (0, 17)	R1: 494	18.7	14.3	0.123
All female children (0–17)	R2: 466	(14.4–23.0)	(10.5–18.2)	
Males				
0–4	R1:39	24.2	23.7	0.966
	R2: 41	(8.6–39.8)	(8.1–39.2)	
5–9	R1: 104	15.5	20.1	0.321
	R2: 95	(7.6–23.4)	(11.4–28.7)	
10–14	R1: 122	24.4	13.2	0.033
	R2: 126	(15.7–33.2)	(6.8–19.7)	
15–17	R1:57	24.0	8.3	0.010
	R2: 54	(11.6–36.3)	(0.8–15.9)	
All male children (0–17)	R1: 477	22.6	15.6	0.010
	R2: 457	(17.9–27.3)	(11.4–19.8)	
Both sexes				
0–4	R1:96	27.4	18.3	0.214
	R2: 98	(17.2–37.7)	(9.4–27.3)	
5–9	R1: 237	20.7	18.4	0.571
	R2: 220	(14.2–27.2)	(12.3–24.6)	
10–14	R1: 307	20.6	13.8	0.038
	R2: 311	(15.0–26.1)	(9.3–18.3)	
15–17	R1: 155	19.8	12.3	0.058
	R2: 153	(13.1–26.6)	(6.8–17.8)	
All ages (0–17)	R1: 1034	18.9	15.8	0.134
	R2: 987	(15.6–22.3)	(12.6–19.0)	

Table 11	. Percentaae of	children to	oo sick to	participate in	dailv	activities
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OVC_HIVST: Percent of children (aged 0–17 years) whose primary caregiver knows the child's HIV status

Caregivers' knowledge of the HIV status of the children in their care is critical for the provision of appropriate child healthcare services. Findings from the surveys showed a significant increase in the caregivers' knowledge of the HIV status of the children in their care, from 64.5 percent in Round 1 to 71.8 percent in Round 2, p<0.05. The increase was statistically significant for both male and female children. The detailed results are presented in Table 12.

		Round 1	Round 2	
Age (years)	N — Number of children	% (95% CI)	% (95% CI)	p value
Females				
0-4	R1: 42	60.9	58.6	0.842
	R2: 42	(44.2–77.7)	(41.7–75.5)	
5–9	R1:102	69.3	84.0	0.021
	R2: 94	(58.7–80.0)	(75.5–92.5)	
10–14	R1:144	69.2	81.3	0.024
	R2: 146	(60.2–78.3)	(73.8–88.7)	
15–17	R1:52	57.4	72.3	0.070
	R2: 56	(42.8–72.1)	(59.1–85.6)	
All female children (0–17)	R1: 494	66.8	74.9	0.018
	R2: 466	(61.0–72.7)	(69.7–80.2)	
Males				
0-4	R1:39	66.7	71.0	0.738
	R2: 41	(49.4–84.0)	(54.0–87.9)	
5–9	R1:104	69.2	78.2	0.127
	R2: 95	(58.8–79.7)	(68.8–87.6)	
10–14	R1:122	65.2	72.2	0.257
	R2: 126	(55.6-74.8)	(63.2–81.3)	
15–17	R1:57	63.5	70.8	0.342
	R2: 54	(49.6–77.5)	(57.5–84.2)	
All male children (0-17)	R1: 477	64.5	72.8	0.022
	R2: 457	(58.7–70.3)	(67.3–78.3)	
Both sexes				
0-4	R1:96	65.5	61.5	0.647
	R2: 98	(53.9–77.1)	(49.8–73.3)	
5–9	R1:237	67.1	79.5	0.006
	R2: 220	(59.1–75.1)	(72.6–86.4)	
10–14	R1:307	68.7	76.6	0.056

	Table 12. Percentage	of children	whose primary	careaiver knows t	he child's HIV status
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		Round 1	Round 2	
Age (years)	N — Number of children	% (95% CI)	% (95% CI)	p value
	R2: 311	(62.2–75.2)	(70.6–82.6)	
15–17	R1:155	62.2	73.1	0.032
	R2: 153	(53.4–70.9)	(65.1–81.1)	
All ages (0–17)	R1: 1034	64.5	71.8	0.014
	R2: 987	(59.6–69.4)	(67.2–76.6)	

OVC_KE1: Percent of children (aged 0–17 years) living with HIV who are taking ARV drugs

Caregivers who reported knowing the HIV status of the children in their care were also asked to report their status. The results showed that 5.9 percent of all children in Round 1 were reported to be living with HIV compared with the 6.3 percent reported during Round 2. However, this change was not statistically significant, p < 1.0. Table 13 shows the percentage of children reported to be living with HIV. There was a nonsignificant increase in all age groups.

		Round 1	Round 2	
Age (years)	Ν	% (95% CI)	% (95% CI)	p value
Females				
0-4	R1:17	7.7	0.0	0.337
	R2:14	(0.0–24.5)		
5–9	R1:63	3.3	2.2	0.323
	R2: 57	(0.0–8.1)	(0.0–6.6)	
10–14	R1:84	6.3	4.0	0.182
	R2: 85	(0.6–12.1)	(0.0–8.7)	
15–17	R1:25	10.9	10.9	N/A
	R2: 28	(0.0–23.8)	(0.0–23.8)	
All female children (0-17)	R1: 306	5.7	4.3	0.253
	R2: 294	(2.3–9.1)	(1.1–7.5)	
Males				
0-4	R1:19	3.6	7.1	0.336
	R2: 20	(0.0–11.3)	(0.0–22.6)	
5–9	R1:65	13.5	14.9	0.664
	R2: 58	(4.0–22.9)	(4.8–25.0)	
10–14	R1:65	9.4	8.3	0.322
	R2: 68	(10.9–17.7)	(0.2–16.4)	
15–17	R1:32	3.8	3.8	1.000

Table 13. Percentage of children reported by caregiver to be living with HIV

		Round 1	Round 2	
Age (years)	Ν	% (95% CI)	% (95% CI)	p value
	R2: 29	(0.0–11.8)	(0.0–11.8)	
All male children (0–17)	R1: 298	6.6	8.1	0.422
	R2: 294	(3.1–10.2)	(4.1–12.1)	
Both sexes				
0-4	R1:44	5.4	3.6	0.663
	R2: 42	(0.0–13.4)	(0.0–10.9)	
5–9	R1:148	7.1	9.4	0.181
	R2: 131	(2.2–12.0)	(3.5–15.3)	
10–14	R1: 184	7.3	6.3	0.570
	R2: 188	(2.8–11.7)	(2.2–10.4)	
15–17	R1:80	3.8	5.6	0.349
	R2: 80	(0.0–7.8)	(0.0–11.3)	
All ages (0–17)	R1: 693	5.9	6.3	0.785
	R2: 667	(3.4–8.5)	(3.6–8.9)	

All children who were reported by caregivers to be living with HIV were reported to be on ART in both survey rounds.

Nutrition

OVC_NUT: Percent of children (aged 6–59 months) who are undernourished

MUAC measurements were recorded only for children ages 6–59 months. In accordance with PEPFAR's MER OVC ESI guidance, a child was considered undernourished if his/her MUAC measurement fell below 125 mm. In Round 1, one boy and one girl were considered malnourished. In Round 2, one boy was considered malnourished, but none of the girls. These data are shown in Table 14.

Sev	N	Round 1	Round 2			
JEA		% (95% CI)	% (95% CI)	p value		
Females						
All female children (6–59 months)	R1:35	3.6	0.0	0.326		
	R2: 34	(0.0–10.9)				
Males						
	R1:28	2.3	2.3	N/A		
All male children (6–57 monins)	R2: 28	(0.0–7.0)	(0.0–7.0)			
Both sexes						
	R1: 82	2.8	0.9	0.322		
All children (o-57 monins)	R2: 80	(0.0–7.0)	(0.0–2.8)			

Table 14. Percentage of children ages 6–59 months who are undernourished*

* Undernourished is defined as a MUAC measurement of less than 125 mm.

Early Childhood Development

OVC_STIM: Percent of children < 5 years of age who recently engaged in stimulating activities with any household member over 15 years of age

Caregivers were asked whether under-five children in their care had engaged in stimulating activities with any household member over 15 years of age in the past three days. Six stimulating activities were considered: reading books, looking at pictures in books, telling stories, singing songs or lullabies, playing with the child, and naming, counting, or drawing things.

Overall, there was a decline in the proportion of children who participated in at least one stimulating activity, from 85.3 percent to 83.5 percent, but the decline was not statistically significant. However, as shown in Table 15, there was a statistically significant increase in some of these activities, especially among boys.

Sex of child/Activity	N	Round 1	Round 2	n value
Sex of child/ Activity		% (95% CI)	% (95% CI)	
Females				
Read or looked at picture books	R1:42	48.6	55.2	0.540
	R2: 42	(31.7–65.5)	(39.2–71.3)	
Told stories	R1: 42	47.1	62.4	0.213
	R2: 42	(30.5–63.8)	(46.5–78.2)	
Sang songs or lullabies	R1: 42	77.1	75.2	0.864
	R2: 42	(63.1–91.2)	(61.1–89.4)	
Engaged in play	R1: 42	77.1	76.7	0.964
	R2: 42	(62.5–91.8)	(62.5–90.8)	
Named, counted, or drew things	R1:42			0.570
	R2: 42	40.5(23.9-57.1)	46.7 (30.02–63.3)	0.563
One or more of these activities	R1: 42	88.6	82.4	0.495
	R2: 42	(77.5–99.7)	(69.7–95.0)	
Males				
Read or looked at picture books	R1:39	31.7	63.4	0.010
	R2: 41	(15.0–48.5)	(46.4–80.5)	
Told stories	R1:39	36.6	71.0	0.006
	R2: 41	(19.5–53.6)	(55.3–86.6)	
Sang songs or lullabies	R1:39	74.7	69.9	0.682
	R2: 41	(59.2–90.3)	(53.8–86.0)	
Engaged in play	R1:39	76.3	75.3	0.920
	R2: 41	(60.8–91.9)	(60.2–90.3)	
Named, counted, or drew things	R1:39	16.1	48.9	0.001
	R2: 41	(2.4–29.8)	(31.5–66.4)	
One or more of these activities	R1:39	79.6	84.4	0.592
	R2: 41	(64.9–94.3)	(71.7–97.1)	
All ages <5				
Read or looked at picture books	R1:96	40.9	59.1	0.024
	R2: 98	(29.3–52.5)	(48.0–70.2)	
Told stories	R1:96	42.6	65.0	0.006
	R2: 98	(31.0–54.1)	(54.3–75.7)	
Sang songs or lullabies	R1:96	77.1	73.1	0.604
	R2: 98	(67.1–87.0)	(63.2–82.9)	
Engaged in play	R1:96	74.9	74.6	0.972
	R2: 98	(64.1–85.6)	(64.8–84.5)	

Table 15. Percentage of children under five years of age who recently engaged in stimulating activities with any household member over 15 years of age

Sex of child/Activity	Ν	Round 1	Round 2	n value
		% (95% CI)	% (95% CI)	praioe
Named, counted, or drew things	R1:96	28.5	48.2	0.008
	R2: 98	(17.7–39.2)	(36.8–59.6)	
One or more of these activities	R1:96	85.3	83.5	0.772
	R2: 98	(76.6–93.9)	(75.2–91.7)	

Percent of children (aged 2–5 years) regularly attending preschool

Questions about preprimary education were included in the surveys. Specifically, caregivers were asked about preschool enrollment and regular attendance during the past year for each child ages 2–5 years in their care. In Kenya, preprimary school begins as early as age two and children typically begin primary education at age six. In Table 16, we present results for children ages 2–5. Overall, there was a significant increase in the proportion of children who were enrolled in preprimary school (42.9% in Round 1 versus 62.7% in Round 2, p<0.01). The proportion of children who regularly attended school (i.e., did not miss a day of school in the past week for any reason, as reported by the caregiver,) increased from 34.6 percent in Round 1 to 48.8 percent in Round 2. This increase was not statistically significant and can be attributed to an increase for male children. There was no statistically significant change for females.

Child's age (years)	N	Round 1	Round 2	n value
		% (95% CI)	% (95% CI)	
Females				
Enrolled	R1:41	40.1	76.6	0.001
	R2: 38	(24.0–56.2)	(62.8–90.3)	
Regularly attending school	R1:41	32.3	31.3	0.922
	R2: 38	(17.4–47.2)	(15.6–46.9)	
Males				
Enrolled	R1:44	40.0	68.1	0.018
	R2: 44	(23.4–56.5)	(52.8–83.5)	
Regularly attending school	R1:44	37.4	47.5	0.358
	R2: 44	(21.2–53.5)	(30.9–64.2)	
Both sexes				
Enrolled	R1:104	42.9	62.7	0.006
	R2: 107	(32.6–53.1)	(53.2–72.1)	
Regularly attending school	R1:104	34.6	48.8	0.054
	R2: 107	(24.7–44.4)	(38.9–58.8)	

Table 16. Percentage of children ages 2–5 who were enrolled and regularly attended preschool

Education

OVC_SCHATT: Percent of children (aged 5-17 years) regularly attending school

As shown in Table 17, approximately 95 percent of children ages 5–17 years were enrolled in school in both survey rounds Overall, no significant differences between rounds were observed by sex, age category, or school level.

Child's age (vears)	N	Round 1	Round 2	n value
		% (95% CI)	% (95% CI)	pvaloe
Females				
5–9	R1:102	96.7	99.3	0.103
	R2: 94	(92.7–100.0)	(98.0–100.0)	
10–14	R1:144	97.9	97.6	0.794
	R2: 146	(95.5–100.0)	(94.8–100.0)	
15–17	R1:52	94.7	89.4	0.229
	R2: 56	(88.4–100.0)	(80.7–98.0)	
All female children (5–17)	R1: 404	95.2	96.2	0.383
	R2: 393	(92.7–97.7)	(93.9–98.5)	
Males				
5–9	R1:104	95.5	96.8	0.483
	R2: 95	(91.4–99.7)	(93.5–100.0)	
10–14	R1: 122	93.3	94.1	0.766
	R2: 126	(88.1–98.6)	(89.5–98.7)	
15–17	R1:57	89.6	89.6	1.000
	R2: 54	(80.6–98.5)	(81.1–98.0)	
All male children (5–17)	R1: 407	94.1	94.5	0.780
	R2: 385	(91.5–96.8)	(92.0–97.1)	
Both sexes				
5–9	R1:237	95.5	97.5	0.138
	R2: 220	(92.6–98.4)	(95.4–99.6)	
10–14	R1:307	96.3	96.0	0.852
	R2: 311	(93.7–98.8)	(93.5–98.5)	
15–17	R1: 155	91.0	92.0	0.759
	R2: 153	(86.0–96.0)	(87.5–96.5)	
All ages (5–17)	R1: 873	94.6	95.3	0.486
	R2: 844	(92.7–96.5)	(93.5–97.2)	

Among all children ages 5–17, 74.1 percent were attending school regularly (i.e., did not miss any school days in the week preceding the survey) in Round 1 compared with 81.2 percent in Round 2 (Table 18). This increase was statistically significant for both female and male children and for all age groups.

Child's age (years)	N	Round 1	Round 2	n value
		% (95% CI)	% (95% CI)	proioc
Females				
5–9	R1: 102	76.0	89.3	0.015
	R2: 94	(67.0–85.0)	(82.4–96.2)	
10–14	R1:144	73.6	85.7	0.013
	R2: 146	(65.4–81.7)	(79.5–92.0)	
15–17	R1:52	71.3	77.7	0.479
	R2: 56	(58.0–84.5)	(65.5–89.8)	
All female children (5–17)	R1: 404	74.5	83.3	0.008
	R2: 393	(69.3–79.7)	(78.8–87.7)	
Males				
5–9	R1:104	77.8	81.2	0.505
	R2: 95	(69.2–86.4)	(72.8–89.6)	
10–14	R1: 122	74.4	81.5	0.234
	R2: 126	(65.5–83.4)	(73.7–89.3)	
15–17	R1:57	67.7	67.7	1.000
	R2: 54	(54.2–81.3)	(54.2–81.3)	
All male children (5–17)	R1: 407	73.9	80.7	0.038
	R2: 385	(68.8–79.0)	(75.8–85.6)	
Both sexes				
5–9	R1:237	73.3	83.6	0.012
	R2: 220	(66.5–80.1)	(77.7–89.5)	
10–14	R1:307	75.6	82.2	0.074
	R2: 311	(69.8–81.3)	(77.0–87.3)	
15–17	R1: 155	67.2	76.1	0.081
	R2: 153	(59.0–75.4)	(68.7–83.4)	
All ages (5–17)	R1: 873	74.1	81.2	0.005
	R2: 844	(70.3–78.0)	(77.4–84.9)	

Table 18. Percentage of children regularly attending school

OVC_PRGS: Percent of children (aged 5–17 years) who progressed in school during the last year

Table 19 presents the percentage of children ages 5–17 reported to have progressed in school during the last year, (i.e., their caregivers reported them to be in a higher grade level at the time of the survey compared with the grade they were in the previous school year). An increase in school progression was noted for both female and male children, but the increase was not statistically significant. For males ages 10–14, there was an observed decrease.

Child's age (years)	N	Round 1	Round 2	n value
		% (95% CI)	% (95% CI)	praioc
Females				
5–9	R1:88	92.9	94.7	0.671
	R2: 79	(86.5–99.2)	(89.2–100.0)	
10–14	R1:143	86.4	82.0	0.313
	R2: 145	(80.4–92.5)	(74.9–89.2)	
15–17	R1:51	82.6	89.1	0.360
	R2: 54	(71.2–94.0)	(80.3–97.9)	
All female children (5–17)	R1: 394	85.7	89.1	0.217
	R2: 385	(81.5–89.9)	(85.3–92.8)	
Males				
5–9	R1:100	86.3	89.9	0.449
	R2: 92	(78.7–94.0)	(83.2–96.7)	
10–14	R1:116	88.3	83.5	0.352
	R2: 116	(81.7–94.9)	(76.0–91.1)	
15–17	R1:51	69.8	86.0	0.080
	R2: 48	(55.9–83.7)	(75.8–96.3)	
All male children (5–17)	R1: 403	83.7	85.1	0.647
	R2: 380	(79.3–88.1)	(81.0–89.1)	
Both sexes				
5–9	R1:233	90.3	92.1	0.552
	R2: 216	(85.9–94.7)	(87.8–96.3)	
10–14	R1:303	87.5	83.9	0.258
	R2: 309	(83.3–91.7)	(79.0–88.8)	
15–17	R1:153	75.7	83.2	0.142
	R2: 147	(67.9–83.5)	(76.5–89.9)	
All ages (5–17)	R1: 869	84.5	87.2	0.197
	R2: 839	(81.4–87.6)	(84.3–90.0)	

Table 19. Percentage of children ages 5–17 who progressed in school during the past year

Legal Rights

OVC_BCERT: Percent of children (aged 0–17 years) who have a verified birth certificate

Ensuring that children have a valid birth certificate is the first step toward child legal protection. We asked caregivers whether the children in their care had birth certificates, and to show the birth certificate to the interviewers if they had it. In both Round 1 and Round 2, many caregivers indicated that the child had a birth certificate, but a larger percentage of birth certificates were available and shown to the interviewer: 26.1 percent in Round 2 compared with 17.7 percent in Round 1. This increase was statistically significant for both female and male children, but only for the 10 to 14 year age group. These results are shown in Table 20.

Child's age (years)	N	Round 1	Round 2	n valuo
		% (95% CI)	% (95% CI)	p value
Females				
0-4	R1: 42	14.3	22.9	0.324
	R2: 42	(2.1–26.5)	(8.2–37.5)	
5–9	R1:102	13.3	22.2	0.126
	R2: 94	(5.5–21.2)	(12.9–31.6)	
10–14	R1:144	16.8	29.8	0.003
	R2: 146	(9.6–24.1)	(21.2–38.4)	
15–17	R1: 52	39.4	38.3	0.910
	R2: 56	(25.0–53.7)	(24.2–52.4)	
All female children (0–17)	R1: 494	19.2	27.9	0.005
	R2: 466	(14.4–24.0)	(22.4–33.3)	
Males				
0-4	R1:39	12.9	10.8	0.807
	R2: 41	(0.4–25.4)	(0.0–21.9)	
5–9	R1:104	11.5	22.4	0.052
	R2: 95	(4.3–18.8)	(13.1–31.8)	
10–14	R1:122	17.4	25.0	0.134
	R2: 126	(9.8–25.0)	(16.2–33.8)	
15–17	R1: 54	29.2	26.0	0.617
	R2: 57	(16.2–42.2)	(13.7–38.4)	
All male children (0–17)	R1: 477	17.0	24.4	0.014
	R2: 457	(12.7–21.4)	(19.2–29.7)	
Both sexes				
0-4	R1:96	11.5	15.9	0.459
	R2: 98	(3.7–19.4)	(7.2–24.6)	
5–9	R1:237	13.6	22.1	0.042

Table 20.	Percentage of	children [,]	(aaes 0–17	vears) who have	a verified birth	certificate
		••••••	(

Child's age (years)	Ν	Round 1	Round 2	n valuo
		% (95% CI)	% (95% CI)	p value
	R2: 220	(7.8–19.3)	(15.2–29.1)	
10–14	R1:307	18.4	29.2	0.002
	R2: 311	(12.9–23.8)	(22.9–35.5)	
15–17	R1:155	30.7	30.8	0.986
	R2: 153	(22.5–38.9)	(22.8–38.8)	
All ages (0–17)	R1: 1034	17.7	26.1	0.001
	R2: 987	(14.0–21.4)	(21.8–30.4)	

Attitudes about Child Punishment

OVC_CP: Percent of caregivers who agree that harsh physical punishment is an appropriate means of discipline or control of children in the home or at school

The majority of caregivers agreed that hitting or beating a child is always or sometimes an appropriate means of discipline or control at home or at school. This proportion significantly increased, from 71.7 percent in Round 1 to 85.1 percent in Round 2 (p<0.01). The increase was evident for both female and male caregivers, but was only significant for the caregiver in the 31 to 50 age group (Table 21).

Age of caregiver	N	Round 1	Round 2	n value
(years)		% (95% CI)	% (95% CI)	praioc
Females				
<18	R1:0			N/A
	R2: 0			
18–30	R1:33	78.8	87.9	0.263
	R2: 33	(64.1–93.5)	(76.1–99.6)	
31–50	R1:120	73.3	83.3	0.058
	R2: 120	(65.3–81.4)	(76.6–90.1)	
51+	R1:72	73.6	84.7	0.073
	R2: 72	(63.2–84.0)	(76.2–93.2)	
	R1: 262	74.8	85.5	0.001
All females	R2: 262	(69.5–80.1)	(81.2–89.8)	
Males				
<18	R1:0			N/A
	R2: 0			
18–30	R1:3	66.7	100.0	0.423
	R2: 3	(0.0–100.0)		
31–50	R1:28	64.3	92.9	0.009
	R2: 28	(45.4–83.2)	(82.7–100.0)	

Table 21. Percentage of caregivers who agree that harsh physical punishment is an appropriate means of discipline or control of children in the home or at school

Age of caregiver	Ν	Round 1	Round 2	n value	
(years)		% (95% CI)	% (95% CI)		
51+	R1:14	50.0	64.3	0.547	
	R2:14	(20.0–80.0)	(35.6–93.0)		
	R1: 48	64.6	83.3	0.048	
All males	R2: 48	(50.5–78.6)	(72.4–94.3)		
Both sexes					
<18	R1:0			N/A	
	R2: 0				
18–30	R1:36	77.8	88.9	0.160	
	R2: 36	(63.5–92.0)	(78.1–99.7)		
31–50	R1:148	71.6	85.1	0.004	
	R2: 148	(85.1–64.3)	(79.3–90.9)		
51+	R1:86	69.8	81.4	0.068	
	R2: 86	(59.9–79.7)	(73.0–89.8)		
All 2222	R1: 329	71.7	85.1	<0.00	
All ages	R2: 329	(66.8–76.6)	(81.2–89.0)		

Household Economic Well-being and Resilience

OVC_KE2: Percent of households able to access money to pay for expected household expenses

Caregivers were asked whether their households were able to cover expected household expenses in the 12 months preceding the survey. The results are shown in Table 22. Overall, 53.5 percent of all households reported that they were able to pay for expected expenses in Round 2 compared with only 25.5 percent in Round 1. This increase was statistically significant for both female and male caregivers.

Sex of carealizer	N	Round 1	Round 2	n value
Sex of curegiver		% (95% CI)	% (95% CI)	
Females	R1:262	23.7	50.4	<0.001
	R2: 262	(18.5–28.8)	(44.3–56.5)	
Males	R1:48	35.4	68.8	<0.001
	R2: 48	(21.4–49.5)	(55.1–82.4)	
All households	R1: 329	25.5	53.5	<0.001
	R2: 329	(20.8–30.3)	(48.1–58.9)	

Table 20. Percentage of households able to access money to pay for expected househol
expenses

OVC_MONEY: Percent of households able to access money to pay for unexpected household expenses

Caregivers were asked whether their households had experienced any unexpected household expenditures in the 12 months preceding the survey, and if so, whether they were able to access money to pay for those unexpected expenses. Overall, the percentage who responded in the affirmative increased from only 8.4 percent in Round 1 to 57.9 percent in Round 2 (Table 23). This increase was statistically significant for both female and male caregivers.

Table 21. Percentage of house	holds able to ac	cess money to	pay for unexpect	ed household
expenses				

Sex of carealizer	n / N	Round 1	Round 2	n value
		% (95% CI)	% (95% CI)	
Females	R1:76	6.6	55.3	<0.001
	R2: 76	(0.9–12.3)	(43.8–66.7)	
Males	R1:15	13.3	73.3	<0.001
	R2: 15	(0.0–32.8)	(48.0–98.7)	
All households	R1: 95	8.4	57.9	<0.001
	R2: 95	(2.7–14.1)	(47.8–68.0)	

DISCUSSION

This panel study involved an outcome monitoring survey conducted two years apart in Kenya, focusing on the nine PEPFAR MER OVC ESIs and two supplemental indicators. The study fulfills PEPFAR's global reporting requirements that aim to measure and track progress of PEPFAR-supported OVC programs over time. The findings highlight various dimensions of child well-being, focusing on progress from 2016 to 2018. The results will support evidence-informed strategies, programming, and resource allocation by a PEPFAR-supported local project, the WRP/HJFMRI; will assist other OVC stakeholders in Kenya to design their programs; and will contribute to a global PEPFAR-wide evidence base on the effectiveness of PEPFAR OVC programming.

The findings show statistically significant improvements for five of the eleven indicators, reflecting an overall improvement in the WRP/HJFMRI project's activities between 2016 and 2018.

All respondents were listed as receiving OVC services from the WRP/HJFMRI in 2016 because this was a condition for study participation. Not surprisingly, however, not all respondents reported that they had ever received services from the project. The significant increase in the percentage of caregivers who reported ever receiving services (from 67.8% in Round 1 to 83.3% in Round 2) was expected, because this variable is cumulative. That not all caregivers reported having ever received a service from the project may be explained by the fact that intangible services may not be considered by respondents to be services. For example, the project may consider an informational conversation to be a service, whereas respondents do not consider it as such, because it is not as tangible as receiving financial assistance. Moreover, the question to the respondent was phrased as "have you ever *personally* received services?" Because some services are directed to the child rather than to the caregiver, some caregivers may not have considered child services as personal services and, therefore, did not report them. We recognized that this question did not work as intended after Round 1, but we did not change it for Round 2 so that we could measure change over time.

Although the proportion of households that reported receiving services in the past six months increased from 35.9 percent in Round 1 to 38.6 percent in Round 2, the change was not significant, and these proportions remain low. However, a decrease of as much as 6.4 percent from Round 1 to Round 2 would have been expected:. This is the proportion of households reporting that they had graduated from the project between Round 1 and Round 2. These are the households that were deemed to no longer require services and that were no longer receiving services. They would say that they had not received services in the past six months if they had graduated more than six months ago. Therefore, the small increase between rounds in the proportion of households receiving services in the six months preceding the survey is a positive sign of services being used.

As for the specific services received in the past six months, there was a significant decrease in psychosocial counseling, education, and shelter. Of interest are the services that were not asked about in 2016: HIV testing and counseling (reported by 28.0%), referral to ART (4.9%), support for disclosing HIV status (10.9%), and referral to GBV services (2.4%). These percentages indicate some demand for these services, especially HIV testing and counseling.

Regarding **children's health**, there was a small decline in the proportion of children who were too sick to participate in daily activities (18.9% in Round 1 versus 15.8% in Round 2). Although not statistically significant, this is a positive finding. There was an increase in caregivers' knowledge of HIV status of children in their care, from 64.5 percent of children in Round 1 to 71.8 percent in Round 2, reflecting the WRP/HJFMRI project's activities that focus on social and behavior change to promote community knowledge about child protection and HIV by working with LIPs, and the promotion of HIV testing as

part of case management. Although this finding is positive, the total number of OVC with HIV status known to the caregiver does not meet the expectation that primary caregivers know the HIV status of all OVC in their care. Therefore, despite the improvement between the two survey rounds, there is still room for the WRP/HJFMRI to improve its efforts for caregivers to know the HIV status of all their children.

Our findings suggest that severe **malnutrition** is not a major problem among WRP/HJFMRI beneficiaries. Based on the MUAC measurement of OVC ages 6–59 months, only one child was found to be undernourished in Round 2 compared with two in Round 1. This finding should be interpreted cautiously because the sample size for this age group was very small; yet, the finding is consistent with figures from national surveys that show very low rates of wasting among young children in counties included in this survey (Kenya National Bureau of Statistics [KNBS] and ICF International, 2015).

The survey found widespread engagement of caregivers or other household members over 15 years of age in **stimulating activities** with young children in the household. However, this figure was marginally lower in Round 2 (83.5%) compared with Round 1 (85.3%). WRP/HJFMRI activities have a component on positive parenting, which includes sensitizing caregivers to the importance of engaging young children in stimulating activities. These results suggest that more emphasis should be given to this component of the program.

Another aspect of **early childhood development** that we measured was preschool attendance of children ages 2–5 years. The percentage of young children enrolled in preschool increased significantly, from 42.9 percent in 2016 to 62.7 percent in 2018. However, we expect that the increase could have been larger, if not for the new (2017) Ministry of Education policy, which states: "The overall goal is to enhance access to quality relevant preprimary education services to all children aged 4-5" (Republic of Kenya, Ministry of Education, 2017, p. 20). Although the policy does not state that schools should disallow children younger than four years from enrolling in preschool, many schools interpret it this way, and may refuse to enroll younger children. These attendance rates are consistent with figures from national surveys (World Bank, 2016).

Performance on **OVC education** over the two years between the surveys improved: 95.3 percent of children ages 5-17 years in Round 2 and 94.6 percent in Round 1 were enrolled in school, and 81.2 percent were regularly attending school in Round 2 (i.e., did not miss any school days in the week preceding the survey) as compared with 74.1 percent in Round 1. The increase in school attendance between 2016 and 2018 was statistically significant. Although this may not be attributed only to the WRP/HJFMRI project's interventions, this finding suggests that the project's education interventions may be working. Reasons for missing school were not asked in the survey, but there is some evidence from the child health indicator that the reduction in school absence may be partly owing to a reduction in cases of children's ill health. The 2014 Kenya Demographic and Health Survey (KDHS) reported lower primary net attendance ratios than those found in Round 2 (i.e., 87.9% in Western and 84.5% in Nyanza regions) (KNBS and ICF International, 2015). However, secondary school attendance in Round 1 and Round 2 was found to be twice that of the regional net secondary attendance ratios reported in the 2014 KDHS (i.e., 26.1% and 37.5% of 14- to 17-year-olds in Western and Nyanza regions, respectively, were reported to be attending secondary school) (KNBS and ICF International, 2015). Of note, however, the KDHS rates reflect attendance at any time during the year preceding the survey and, therefore, are not entirely comparable with the OVC survey indicator. Moreover, because this survey collected information only about children who slept in the household on the night before the interview, the education indicator estimates do not include students who were away at boarding school at the time of the survey. Nevertheless, the improvements we see between Round 1 and Round 2 may be attributed to the WRP/HJFMRI project, at

least in part, either directly (through activities aimed at improved school attendance) or indirectly, by improving the health of children and the economic well-being of the household. Improved financial stability can increase school attendance in two ways. First, households are better able to afford school fees; and second, households have less need for the adolescent to bring income home, so that she or he can continue schooling.

As a component of its child protection services and in support of **child legal rights**, WRP/HJFMRI provides assistance in registering births and helping caregivers obtain birth certificates for their children. Our findings show a marked increase in the proportion of children with a verified birth certificate, reflecting the WRP/HJFMRI project's focus on systematically registering all births that occur in their supported households. Government programs to register children in the area may also have contributed to this observed improvement, especially given that WRP/HJFMRI works closely with the government to facilitate access to birth certificates through mobilization, assistance with forms and procedures, and payment of registration fees. However, despite the noted increase, the overall percentage of children who have a birth certificate is still low, suggesting that more effort aimed at improving birth registration is needed, especially for younger children. However, these figures are consistent with low estimates from national surveys (KNBS and ICF International, 2015).

The survey found that 71.7 percent of caregivers in Round 1 agreed that hitting or beating a child is always or sometimes an appropriate means of discipline or control in the home or at school compared with 85.1 percent in Round 2. This statistically significant increase is not a positive one given the project's aim to protect the rights of children. The acceptance of violence against children may reflect cultural norms that condone violence, in general. Moreover, public debate around students' lack of discipline in schools as a result of recent spates of school strikes and cases of children reportedly burning their schools (BBC News, 2016) may have limited the influence of the project on caregivers' attitudes about harsh punishment as a way of disciplining children in school and at home. The 2014 KDHS found that physical violence against women and children was most prevalent in Western and Nyanza regions compared with other parts of the country (KNBS and ICF International, 2015). This finding suggests the need for the WRP/HJFMRI to increase its efforts to reduce **harsh physical punishment** against OVC.

As to **household economic well-being and resilience**, a statistically significant increase was observed in the proportion of households that could pay for expected household expenses, nearly doubling, from 25.5 percent in Round 1 to 53.5 percent in Round 2. There was also a significant increase in the proportion of households that had experienced an unexpected household expense in the last 12 months and that were able to access money to pay for the unexpected expenses, from about 8.4% in Round 1 to 57.9 percent in Round 2. These findings reflect the WRP/HJFMRI project's focus on addressing household economic resilience by promoting entrepreneurial training and linking their beneficiaries to sources of support for startups for income generating activities, and linking them to savings and loan organizations as a way of promoting their economic independence.

Limitations of the Study

There are several limitations of the study that should be considered when interpreting these results.

- 1. Data on children were reported by the caregiver, not the child, and may therefore be subject to inaccuracies and bias as to the child's actual well-being.
- 2. Round 1 was designed to be a cross-sectional survey and was sampled for that purpose. Only in preparation for Round 2 was the decision made to convert it to the first round of a panel study. Although the Round 1 sampling approach was not powered for a panel study, the sample was large enough for statistical calculations to be valid, especially given the high response rates.
- 3. This was a panel study of households, not of children. Some caregivers changed between rounds; some children aged out of the eligibility range of the study or otherwise left the households; other children were born into participating households or otherwise joined them. Therefore, we could not match the children's information between the rounds and had to rely on household means, which limited the precision of the indicator estimates.
- 4. The association of the survey team with the LIP during fieldwork (for the purpose of locating beneficiary households) may have influenced caregiver responses; however, without assistance of the partner, field teams would not have been able to locate the households and, likely, as "outsiders," would have faced refusals for interviews.
- 5. The survey was designed for the purposes of outcome monitoring only, and the methodology does not allow for attribution of the results directly to the WRP/HJFMRI project. Moreover, the results from this survey cannot be generalized to populations outside the project beneficiary population, given that the sample was selected from among project beneficiaries only.

Despite these limitations, the findings provide evidence of changes in the well-being of WRP/HJFMRI OVC project beneficiaries between 2016 and 2018. Our findings provide insights on project successes and gaps, which may be useful for the project and for other OVC projects in Kenya.

RECOMMENDATIONS

Our findings have clear programmatic implications for the WRP/HJFMRI and for other OVC programs in Kenya:

- Clearly some activities work and work well. In particular, the economic empowerment activities
 appear to be very successful. For household economic well-being to continue to improve, the
 WRP/HJFMRI should reinforce the existing households' economic strengthening strategies, such
 as linking the households' access to social safety-net programs; to financial services, such as
 savings and internal lending communities; and providing financial education to the caregivers. The
 case management approach to household economic strengthening should also focus on
 households that lag behind.
- 2. The indicator on approval of capital punishment has regressed, instead of improving, in the two years between survey rounds. Given the cultural norms that favor violence in the family, there is a need for activities at the community level to encourage change. For example, the WRP/HJFMRI could design community sensitization activities that address the dangers associated with corporal punishment and tackle related norms and attitudes.
- 3. Health, education, and legal status indicators have improved, but there is still room for improvement, as follows:
 - a. There is a need to improve collaboration with relevant government agencies, such as the Department of Children Services and the Office of the Registrar of Births, to ensure that registration services are conveniently made available, to the extent possible. The project should also assist caregivers to navigate the requirements and documentation.
 - b. As to health, CHVs should become more empowered to identify and refer sick children to necessary care. The project should also focus more on conducting HIV risk assessments and referring those most at-risk children to HIV testing to ensure that their status information is reliable and up to date.
 - c. We recommend increasing internal data use to inform actions for households with children who have challenges with school progression.

REFERENCES

BBC News (2016, July 25). Why are Kenya's schools being torched? Retrieved from https://www.bbc.com/news/world-africa-36845144.

Kenya National Bureau of Statistics (KNBS) and ICF International. (2015). *Kenya demographic and health survey 2014*. Rockville, Maryland: KNBS and ICF International. Retrieved from https://dhsprogram.com/pubs/pdf/fr308/fr308.pdf.

MEASURE Evaluation. (2014). *Collecting PEPFAR MER essential survey indicators: A supplement to the orphans and vulnerable children survey tools* (ms-14-90). Chapel Hill, NC, USA: MEASURE Evaluation, University of North Carolina. Retrieved from <u>https://www.measureevaluation.org/resources/publications/ms-14-90</u>.

Republic of Kenya, Ministry of Education. (2017). *National pre-primary education policy*. Nairobi, Kenya: Ministry of Education. Retrieved from <u>www.education.go.ke/index.php/.../file/545-national-pre-primary-education-policy</u>.

Settergren, S. K., Faye, C. M., & Beguy, D. (2018). *Monitoring outcomes of PEPFAR orphans and vulnerable children programs in Kenya: Walter Reed Program/Henry Jackson Foundation Medical Research International 2016 survey findings* (tr-17-222). Chapel Hill, NC, USA: MEASURE Evaluation, University of North Carolina. Retrieved from https://www.measureevaluation.org/resources/publications/tr-17-222.

World Bank. (2016). Kenya early childhood education project.

APPENDIX A. QUESTIONNAIRES

IDENTIFICATION DATA

QUESTIONNAIRE IDENTIFICATION NUMBER	
	Timiza 90
OVC Service Delivery Partner	MWENDO
	WRP/HJEMRI
COUNTY	
Subcounty	
WARD	
VILLAGE/TOWN	
TYPE OF LOCATION	Urban 1
	Rural 2
HOUSEHOLD NUMBER (from sampling list)	[]
Panel survey or cross-sectional	Panel study 1
	Cross sectional 2
	QUESTIONNAIRE IDENTIFICATION NUMBER OVC Service Delivery Partner COUNTY Subcounty WARD VILLAGE/TOWN TYPE OF LOCATION HOUSEHOLD NUMBER (from sampling list) Panel survey or cross-sectional

INTERVIEW RESULT

	VISIT 1	VISIT 2	VISIT 3
DATE (dav/month/vear)			

Interview comment codes: 1–Interview completed; 2–Relocated/Changed address in the area; 3–Unavailable for extended period; 4–Out-migrated; 5–Not known in the community / Not traced; 6–Duplicate 7–Refused.

009	INTERVIEWER	A) CODF	B)	NAME
010	DATE INTERVIEW CC) MPI FTFD (dav/month/vear)		

COMMENTS

Caregivers

First, I have a few questions about you and the children under your care.

No.	Question	Coding Cat	tegory		Skip
		Female 1			
1	Record caregiver sex.	Male 2	2		
	IF PANEL STUDY	Yes 1	_		
_	We interviewed this household two years ago as part of the	No 2	,		
2	same project. Were you the caregiver that we interviewed	110 2	-		
	then?	Don't kn	ow 8		
		No answ	er Q		
	How old were you at your last birthday?				
3	Do not leave blank. If unknown, ask respondent to estimate	[]	years		
	Have you personally ever received services or participated in	Yes 1	_		
	activities from [insert name of OVC CBO]? By this, I mean	No 2	,		
	have you ever been visited by a community worker, or have	110 2	-		
	you ever participated in any activities organized by this	Don't kn	ow 8		lf No, DK, or
	organization such as a savings group or parenting program?	No answ	er 9		No answer: 8
4	How many months/years ago did you start receiving	[] mo	nths		
_	services or participating in activities from [insert name of	r 1			
5	CBO]?	[] yea			
		Record 88 f	or Don't kno	ow;	
	Have you personally received services or participated in	Yes 1			
6	activities from [insert name of CBO] in the <u>last 6 months</u> ?	No 2			
Ū			-		
		Don't know	8		
		No answer	9		
	What types of services have you or other members of your household received from [organization] in the past 6	Yes	No	Don't know	No answer
	7.1 Health or nutrition	1	2	8	9
		1	2		0
	7.2 Education	1	2	8	9
7	7.3 Shelter	1	2	8	9
	7.4 Household economic strengthening	1	2	8	9
	7.5 Legal and social protection	1	2	8	9
	7.6 Psychosocial counselling	1	2	8	9
	7.7 HIV testing and counseling	1	2	8	9

No.	Question	Coding Category			Skip	
	7.8 Referral to ART	1	2	8	9	
	7.9 Support for disclosing HIV status	1	2	8	9	
	7.10 Referral to GBV services	1	2	8	9	
	Have you ever attended school?	Yes 1			If No, DK, or	
8		No 2			10 answer.	
		Don't know	/ 8			
	What is the highest level of school you attended?	Pre-primary	/nursery/EC	D0		
		Primary		1		
9		Secondary		2		
		College		3		
		University		4		
		Don't know		8		
		Always an appropriate means of				
		Sometimes an appropriate means				
		of discipline				
10	Do you think that hitting or beating a child is an appropriate	Rarely an appropriate means of				
10	means of discipline or control <u>in the home</u> ?	discipline 3				
		Never an ap discipline				
		Don't know		8		
		Always an a	ppropriate r	means of		
		discipline 1				
		Sometimes				
	Do you think that hitting or beating a child is an appropriate					
11	means of discipline or control <u>at school</u> ?	Rarely an appropriate means of discipline				
		Never an ap	propriate m	eans of		
		discipline 4				
	I'm now going to read some statements and I'd like	Don't know	Partially	8 Do not	No answer	
12	you to tell me if you agree, partially agree, or do not	-BICC	agree	agree		
	agree.					

No.	Question	Coding Category		Skip	
_	12.1 Changing diapers or giving a bath to kids is only mother's/woman's responsibility.	1	2	3	9
	12.2 Feeding a child can be the father's responsibility	1	2	3	9
	12.3 Taking care of her home and family is only the woman's responsibility	1	2	3	9
	12.4 The husband should decide to buy the major household items.	1	2	3	9
	12.5 A man should have the final word about decisions in his home.	1	2	3	9
	12.6 A woman should obey her husband in all things.	1	2	3	9
	12.7 There are times when a woman deserves to be beaten.	1	2	3	9
	12.8 A woman should tolerate violence to keep her family together.	1	2	3	9
	12.9 If someone insults a man, he should defend his reputation with force if he has to.	1	2	3	9
	12.10 A man using violence against his wife is a private matter that shouldn't be discussed outside the couple	1	2	3	9
	Do you own the house/dwelling where you live	Yes 1			
13		No 2			
		Don't know	/ 8		
	Does your household have any of the following:	Yes	No	Don't know	No answer
	14.1 Electricity (connected to grid)	1	2	8	9
14	14.2 Solar power	1	2	8	9
	14.3 Generator	1	2	8	9
	14.4 Other source of electricity	1	2	8	9
15	Has your household been able to cover <u>expected</u> household expenses in the last 12 months?	Yes 1 No 2 Don't know	/ 8		
			-		

No.	Question	Coding Category	Skip
		Yes 1	
	Did your household incur any <u>unexpected</u> household	No 2	
16	expenses, such as a house repair or urgent medical		
10		Don't know 8	IT NO, DK, Or No answer:
		No answer 9	10
		Yes 1	
17	Was your household able to pay for these expenses?	No 2	
		Yes 1	
10-	Are there children in your care who used to receive services	No 2	
189	from [LIP name] but are no longer receiving services, since	Don't know 8	If No. DK. or
	January 2018?		No answer:
		No answer 9	19 If No. DK an
	How many children in this household are no longer receiving	Number //	IT NO, DK, Or No answer:
18b	services from [LIP name] since January 2018?	Don't know 98	20
		No answer 99	
19	Does this household still qualify to receive services from [LIP name]	Yes 1	
		No 2	
		Don't know 8	If No, DK, or No answer:
		No answer 9	19b
			If Voci 20
19a	Were you told that the household no longer qualifies for	Yes 1	
	services from [LIP name]?	No 2	
		Don't know 8	
1.01		No answer 9	
196	When was the last time (or how many months ago) you or the children you care for received any service from [UP	[] months	
	name]	[] years	
		Record 88 for Don't know;	
19c	Since that time, have you or any child from this household		Y/N
	received any service or support from	Government services	
		Other NGOs	
		Churches/Mosques	
		[]	
20	How many children ages 0–17 years are you responsible for?	-	

Starting with the oldest, please tell me the first names and ages of the children you care for or for whom you are responsible. Make sure that the total number of children is the same as the response given to question 20 above.

		Age	Questionnaire		Registered beneficiary of [organization's] OVC program
		Age	0–4	5–17	Y/N
No.	First name	(years)	years	years	
1	Example. Samuel	6	-	Х	Y

Child Ages 0–4 years

I have a few questions about [insert child's name]. Check to make sure that the sampled child is present. You will need to take this child's mid–upper arm circumference.

No.	Question	Coding Cat	egory		Skip
		Female 1			
1	Is [NAME] female or male?	Male 2			
	How old was [NAME] at her/his last birthday?				lf No, DK,
	Do not leave blank. If unknown, ask caregiver to estimate.				or No
	If the child is older than 4 at last birthday, use 5–17 years				answer: 4
L	questionnaire. Proceed to next household/child on list.	[]	years		
2					
		Yes 1			lf No, DK,
3	3.1 Does [NAME] have a birth certificate?	No 2			or No
		Don't know	8		
		Noanswer	٥		
	2.2 Could you please show me [NAME'S] hirth certificate?	Seen/Confir	med 1		lf 1: 4
	5.2 Could you please show the tranve of birth certificate.	Not seen/No	ot confirmec	1 2	
	3.3 What is the reason you are unable to show it to me?	Can't locate	it just now	1	
		Permanently	y missing/		
		destroyed 2			
		Someone el:	se keeps it	3	
	In the past 3 days, did you or any household member over				
	15 years of age engage in any of the following activities with	Yes	No	Don't know	No answer
	4.1 Read books to or looked a picture books with [NAME]?	1	2	8	9
4	4.2 Told stories to [NAME]?	1	2	8	9
	4.3 Sand songs to [NAME] or with [NAME] including				
	lullabies?	1	2	8	9
	4.4 Played with [NAME]?	1	2	8	9
	4.5 Named, counted, or drew things with [NAME]?	1	2	8	9
		Yes 1	<u> </u>		
5	Is [NAME] currently enrolled in school (Early Child	No 2			
	Development)?	Don't know	8		lf No, DK, or No

No.	Question	Coding Category	Skip
6	During the last school week, did [NAME] miss any school days for any reason?	Yes 1 No 2 Don't know 8 No answer 9	
7	What ECD grade (or year) is [NAME] in now?	[] Record 88 for Don't know; 99 for No answer	
8	Was [NAME] enrolled in school during the previous school year?	Yes 1 No 2 Don't know 8 No answer 9	lf No, DK, or No answer: 10
9	What ECD grade (or year) was [NAME] in during the previous school year?	[] Record 88 for Don't know;	
10	In the last 2 weeks, has [NAME] been too sick to participate in daily activities?	Yes 1 No 2 Don't know 8	
11	Has [NAME] ever received services or participated in activities from [insert name of CBO]? READ: For Example, referral to health services for the child, referral of the child for immunizations, referral of the child to HIV testing and counseling, referral for ART, counseling, payment of school fees, support for school supplies and materials, help to get child's birth certificate, water- treatment products, medicines, referral to social protection	Yes 1 No 2 Don't know 8 No answer 9	If No, DK, or No answer: 14
12	services, etc. How many months ago did [NAME] start receiving services or participating in activities from [insert name of CBO]?	[] months Record 88 for Don't know;	

No.	Question	Coding Category	Skip
	Has [NAME] received services or participated in activities	Yes 1	
13	from [<i>insert name of CBO</i>] in the last 6 months?	No 2	
		Don't know 8	
	Has [NAME] ever been tested to see if he/she has the AIDS	Yes 1	
14	virus?	No 2	lf No, DK,
		Don't know 8	or No
		No answer 9	answer: end
	Do you know the results of [NAME's] test?	Yes 1	
15		No 2	or No
			answer:
		Don t know 8	end
<u> </u>	Did [NAME] test positive for the AIDS virus?	Yes 1	
16		No 2	If No, DK, or No
10		Don't know 8	answer: 20
	Is [NAME] currently taking antiretroviral (ARV) drugs?	Yes 1	lf No, DK,
		No 2	or No
17		Don't know 8	answer: 20
	When the last time [NAME] was took his/her ADV drugs?	No answer 9	
	when the last time [NAME] was took his/her AKV drugs:	Number of days ago.	
18			
		0=today	
		88=Don't know	
	May I measure your child's mid–upper arm circumference?		
	Measure the child's mid–upper arm circumference using		
19	the MUAC tape and record measurement.	[].[] Cm	

Child Ages 5–17 years

Age group	5–9 years	10–14 years	15–17 years
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I have a few questions about [insert child's name].

No.	Question	Coding Category	SKIP
		Female 1	
1	Is [NAME] female or male?	Male 2	
	How old was [NAME] at her last birthday?		
	Do not leave blank. If unknown, ask caregiver to estimate. If	r , , ,	
2	the child was less than 5 years old at last birthday, complete	years	
	the 0- to 4-year-old form. If the child is 18 or older, stop the		
		Yes 1	If No, DK, or No answer:
3	3.1 Does [NAME] have a birth certificate?	No 2	4
		Don't know 8	
		No answer 9	
	3.2 Could you please show me [NAME'S] birth certificate?	Seen/Confirmed 1	lf 1: 4
		Not seen/Not confirmed 2	
	3.3 What is the reason you are unable to show it to me?	Can't locate it just now 1	
		Permanently missing/	
		destroyed 2	
		Someone else keeps it 3	
		Yes 1	
4	Is [NAME] currently enrolled in school?	No 2	
		Don't know 8	lf No, DK, or
		No ongwor 0	No answer:
	During the last school week, did [NAME] miss any school days	Yes 1	
5	for any reason?	No 2	
		Don't know 8	
		No answer 9	

No.	Question	Coding Category	SKIP
		Pre-primary/nursery/ECD 0	
	6.1 What education level is [NAME] currently attending?	Primary 1	
		Post-primary training 2	
		Secondary 3	
		Post-secondary training 4	
6		College 5	
		Vocational training 6	
	6.2 What school grade is [NAME] currently attending?	[]]	
		Record 88 for Don't know;	
		99 for No answer	
	Was [NAME] enrolled in school during the previous school	Yes 1	
7	year?	No 2	
		Don't know 8	lf No, DK, or
		No answer 9	No answer: 9
		Pre-primary/nursery/ECD 0	
	8.1 What education level did [NAME] attend during the previous school year?	Primary 1	
		Post-primary training 2	
		Secondary 3	
		Post-secondary training 4	
8		College 5	
		Vocational training 6	
	8.2 What school grade did [NAME] attend during the previous	[]	
		Record 88 for Don't know;	
		99 for No answer	
	At any point in the last 2 weeks, has [NAME] been too sick to	Yes 1	
9	participate in daily activities?	No 2	
		Don't know 8	

No.	Question	Coding Category	SKIP
10	FOR FEMALE CHILDREN, AGE 12+	Yes 1	lf No, DK, or
	10.1 Has [NAME] ever been pregnant?	No 2	No answer: 11
		Don't know 8	
		No answer 9	
	10.2 How old was [NAME] when she first became pregnant?	[] months	
		Record 88 for Don't know;	
		99 for No answer	
	Has [NAME] ever received services or participated in activities	Yes 1	
11		No 2	
	READ: For Example, referral to health services for the child, referral of the child for immunizations, referral of the child to	Don't know 8	lf No, DK, or
	HIV testing and counseling, referral for ART, counseling,	No answer 9	No answer:
	payment of school fees, support for school supplies and		14
	products medicines referral to social protection services etc.		
	How many months ago did [NAME] start receiving services or	[] months	
12		Record 88 for Don't know;	
		99 for No answer	
	Has [NAME] received services or participated in activities from	Yes 1	
13		No 2	
		Don't know 8	
		No answer 9	
	Has [NAME] ever been tested to see if he/she has the AIDS	Yes 1	
14	virus?	No 2	
		Don't know 8	lf No, DK, or
		No answer 9	No answer:
	Do you know the results of [NAME's] test?	Yes 1	PIN
15		No 2	If No, DK, No answor:
		Don't know 8	end
		No answer 9	
	Did [NAME] test positive for the AIDS virus?	Yes 1	
16		No 2	If No, DK,
10		Don't know 9	end

No.	Question	Coding Category	SKIP
	Does [NAME] know that s/he tested positive for the AIDS	Yes 1	
17	virus?	No 2	
-/		Don't know 8	
		No answer 9	
	Is [NAME] currently taking antiretroviral (ARV) drugs?	Yes 1	
18		No 2	
		Don't know 8	
		No answer 9	
	When was the last time [NAME] was took his/her ARV drugs?	Number of days ago:	
19			
		0=today	

MEASURE Evaluation

University of North Carolina at Chapel Hill 123 West Franklin Street, Suite 330 Chapel Hill, North Carolina 27516 USA Phone: +1-919-445-9359 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-OAAI-1400004. 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-19-376

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