Monitoring the Outcomes of Orphans and Vulnerable Children Programs in Kenya

Findings from 2016–2018 Panel Data Timiza 90

September 2019

USAID FROM THE AMERICAN PEOPLE

PEPFAR

MEASURE Evaluation

Monitoring the Outcomes of Orphans and Vulnerable Children Programs in Kenya

Findings from 2016–2018 Panel Data Timiza 90

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

September 2019

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-L-14-00004. MEASURE Evaluation is implemented by the Carolina Population Center, University of North Carolina at Chapel Hill in partnership with ICF International; John Snow, Inc.; Management Sciences for Health; Palladium; and Tulane University. Views expressed are not necessarily those of USAID or the United States government. TR-19-375

ISBN: 978-1-64232-191-3

USAID
FROM THE AMERICAN PEOPLE

PEPFAR

MEASURE
Evaluation

ACKNOWLEDGMENTS

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

We wish to thank Washington Omwomo and Jeniffer Wasianga of the United States Agency for International Development (USAID)/Kenya East Africa, for their guidance on this activity and review of the report. We also thank the orphans and vulnerable children (OVC) team, led by Lisa Parker, of the USAID- and PEPFAR-funded MEASURE Evaluation project, Palladium, for technical input and reviews.

We are grateful to colleagues at the African Population and Health Research Center for their support during implementation of the study, especially Anne Njeri, Daniel Maina, Salma Musa, Dominic Kiio, Silvia Onchaga, Benedict Orindi, and the field team that collected the data. We thank Susan Settergren, of MEASURE Evaluation, Palladium, for her invaluable review; Lillian Mageto, Palladium, Kenya, for her support throughout the project; the Timiza 90 team and its local partners for their collaboration; and the women and men who participated in the survey for their time and the valuable information they provided.

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

Cover photo: "Winney," from a series to support Amazing Grace Children's Home in Kenya, by Greg Westfall, Courtesy of Flickr Creative Commons

Suggested citation:

Sinai, I., Odour, C. O., Akeyo, D., Faye, C. M., Kadengye, D. T., Langat N. (2019). Monitoring the Outcomes of Orphans and Vulnerable Children Programs in Kenya: Findings from 2016–2018 Panel Data: Timiza 90. Chapel Hill, NC, USA: MEASURE Evaluation, University of North Carolina at Chapel Hill.

CONTENTS

TABLES

ABBREVIATIONS

ART	antiretroviral therapy
ARV	antiretroviral
CHV	community health volunteer
CI	confidence interval
EGPAF	Elizabeth Glaser Pediatric AIDS Foundation
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

EXECUTIVE SUMMARY

This report presents findings from a panel study of beneficiary households receiving services from the Timiza 90 project in Western Kenya. Timiza 90 is a United States President's Emergency Plan for AIDS Relief (PEPFAR) project funded through the United States Centers for Disease Control and Prevention and is implemented by the Elizabeth Glaser Pediatric AIDS Foundation (EGPAF) Kenya. Project activities are being implemented in Kisumu, Siaya, and Homa Bay Counties in Western Kenya through five local implementing partners (LIPs). Key orphans and vulnerable children (OVC) program areas and intervention components 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 2018–2018 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).

This 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.

Two hundred one households were interviewed during the Round 1 survey. They were revisited for the Round 2 survey, with only 184 households successfully reinterviewed (88.0% 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.

Table 1. Comparison of PEPFAR OVC MER ESI results for Round 1 and Round 2 for the Timiza 90 project

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* value[2]
OVC_HIVST: Percent of children (aged 0–17 years) whose primary caregiver knows the child's HIV status	R1: 631[3] R2: 654	82.5 (77.6–87.4)	89.6 (85.8–93.5)	0.021
OVC_NUT: Percent of children (aged 6–59 months) who are undernourished	R1: 42 R2: 41	No child malnourished	No child malnourished	N/A
OVC_SICK: Percent of children (aged 0–17 years) too sick to participate in daily activities	R1: 631 R2: 654	25.8 (21.2–30.4)	13.6 (10.0–17.2)	<0.001

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* value[2]
OVC_BCERT: Percent of children (aged 0–17 years) who have a verified birth certificate	R1: 631 R2: 654	38.9 (33.1–44.8)	47.9 (41.7–54.1)	0.011
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: 556 R2: 576	92.3 (89.7–95.0)	95.7 (93.8–97.6)	0.045
OVC_STIM: Percent of children < 5 years of age who recently engaged in stimulating activities with any household member over 15 years	R1: 42[4] R2: 41	84.4 (72.0–96.9)	80.0 (65.6–94.4)	0.633
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	R1:184 R2: 184	71.2 (64.6–77.8)	79.3 (73.4–85.3)	0.043
OVC_MONEY: Percent of households able to access money to pay for unexpected household expenses	R1: 116 R2: 116	19.0 (11.7–26.2)	53.4 (44.2–62.7)	<0.001
OVC_KE1: Percent of children (aged 0–17 years) living with HIV who are taking antiretroviral (ARV) drugs	R1: 47[5] R2: 55	100.0	100.0	N/A
OVC_KE2: Percent of households able to access	R1: 184 R2: 184	35.3 (28.4–42.3)	66.8 (60.0–73.7)	<0.001

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* value[2]
money to pay for expected household expenses				

[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 old 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.

These findings have several programmatic implications:

1. Timiza 90 should continue to reinforce its existing household economic strengthening strategies.
2. Timiza 90 should put additional focus on community-level activities to change attitudes about harsh physical punishment.
3. Although OVC indicators on health, education, and legal status indicators have 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, PEPFAR 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 collecting data on these indicators every two years (MEASURE Evaluation, 2014).

At the request of PEPFAR and the 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 Timiza 90 project, which is implemented by EGPAF Kenya. MEASURE Evaluation conducted the second survey round of Timiza 90 beneficiaries in 2018.

This report compares 2016 and 2018 MER ESI data for beneficiaries who received services from Timiza 90. The findings are intended to help the Timiza 90 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 Timiza 90 project

Timiza 90 is a PEPFAR project funded through the United States Centers for Disease Control and Prevention. It is implemented by EGPAF Kenya. The project began in September 2016 and is expected to end in 2021. It is a continuation of the Pamoja project carried out by EGPAF between 2010 and 2016. Timiza 90 project activities are being implemented in Kisumu, Siaya, and Homa Bay Counties in Western Kenya through LIPs that are mainly local nongovernmental organizations. The services that the project provides include healthcare, nutrition, shelter, psychosocial support, child protection, education support, and household economic strengthening. All LIPs deliver the same package of OVC services and assess beneficiary needs using a standardized methodology and criteria. The LIPs work with CHVs, who play lead roles in assessing household needs through monthly visits and an annual household vulnerability assessment. They are also the primary service providers to registered OVC and their households.

In the two years between the 2016 and 2018 surveys, Timiza 90 grew substantially; its caseload more than doubled. Its programs remained essentially the same, but the emphasis shifted to supporting children and caregivers to know their HIV status, link them to health services for those testing positive, and household economic strengthening. The program assesses what works for each family. Case management is family based. Households "graduate" from the program based largely on economic capacity. According to secondary data from Timiza 90, a total of 228 children from 157 households had graduated from the project as of the last quarter of 2018.

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 Timiza 90-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 Timiza 90 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. to 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.
    - 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 taking ARV drugs; percent of households able to access money to pay for expected household expenses.
- Propose recommendations to improve the Timiza 90 project's 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 Timiza 90. The 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 209 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.

Table 2. PEPFAR OVC MER ESIs and two supplemental indicators

Indicator reference	Type	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

Indicator reference	Type	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 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 both 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

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

worked with the Timiza 90 project's LIPs to locate the selected households 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 Round 1 interviews aged out of the program (i.e., were over 18 years 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.

Table 3. Example of indicator household average calculation

	Gender	2016		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, the household value for the indicator was calculated as follows:

2016	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
Ages 0–4: (1+0)/2 = 0.5	Ages 0–4: 1
Ages 5–17: (0+0+1+0)/4 = 0.25	Ages 5–17: (1+1+0+1)/4 = 0.75

*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 data set 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 data sets together (Round 1 and Round 2 data sets) at the household level. The resulting panel data for analysis then contain only male children ages 0–4 years from the two data sets 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 yes 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 data sets 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 0–4 years 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 were then performed for each ESI, 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 data set.
- Confidence intervals (CIs) (95%) around the point estimates were derived.
- Differences in proportions between the two survey rounds were tested using two-sided paired t-tests under the null hypothesis of no difference between the two proportions. Pairing was at the household level.

Response Rate

Of the 209 OVC households interviewed in Round 1, a total of 184 households were successfully interviewed in Round 2, representing 88.0 percent of the total households sampled in Round 1. As shown in Table 4, the field team, working with the CHVs, could not trace 12 households because they were unknown to the LIP-assigned CHV or the local guide. In the remaining 25 households, the caregivers could not be interviewed for a variety of reasons, such as the caregivers being away for an extended period or permanent relocation of the household.

Table 4. Household response rates for Timiza 90 survey by survey round[1]

Category	Number	
	Round 1 (2016)	Round 2 (2018)
Households served by the Timiza 90 OVC project (based on project listing)	1617	18690
Households in the survey sample	240	209
Sampled households (or caregivers) unknown to the LIP-assigned CHVs or the local guide	2	12
Percentage of sampled households not matching the project listing	**4.80%** (23/480)	**5.7%** (12/209)
Household permanently moved out of the survey area	15	3
Caregiver reported to be temporarily away from the household for an extended period	7	6
Caregiver residing at the sampled household but could not be located for an interview after three attempts	7	3
Caregiver deceased and new caregiver not yet identified	0	1
Total number of sampled households where an interview was not conducted (household nonresponse)	31	25
Households with successfully completed interviews	209	184
Response rate	**87.1% (209/240)**	**88.0% (184/209)**

[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.

Table 5. Questionnaires completed and other sample information[1]

Sample information	Round 1 - 2016	Round 2 - 2018
Number of caregivers interviewed ("caregiver" questionnaire completed)	209	184
Number of children ages 0–4 years on which caregivers responded	80	75
Number of children ages 5–17 years on which caregivers responded	638	579
Total number of children on which caregivers responded	718	654
Number of eligible children in the household (listed by the caregiver)	780	654

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

[2] The total number of child interviews completed refers to all child interviews of 0–17-year-olds that were conducted but not the number of interviews used in the analysis for Round 2 that only incorporated children who also for whom a response was recorded in Round 1.

RESULTS

Background Characteristics

Caregivers

The majority of caregivers who were successfully interviewed in both survey rounds were female (approximately 80% in both rounds) (Table 6). All caregivers interviewed in Round 2 were adults ages 18 years or more, whereas in Round 1, one minor caregiver was interviewed. As expected, on average, the 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.

Table 6. Age and sex of caregivers, by survey round[1]

Age (years)	Round 1		Round 2	
	n / N	% (95% CI)	n / N	% (95% CI)
Sex				
Female	168/209	80.4 (75.0–85.8)	148/184	80.3 (74.7–86.2)
Male	41/209	19.6 (14.2–25.0)	36/184	19.6 (13.8–25.3)
Age (years				
<18	1/209	0.5	0/184	0.0
18–30	19/209	9.1(5.2–13.0)	12/184	6.5 (2.9–10.1)
31–50	106/209	50.7 (43.9–57.5)	94/184	51.1(43.9–58.3)
51+	83/209	39.7 (33.1–46.3)	78/184	42.4 (35.3–49.5)
All ages	**209/209**	**100.0**	**184/184**	**100.0**

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

The proportion of caregivers who reported ever attending school was a little higher in Round 2 (83.7% compared with 79.4%) (Table 7). The difference was not statistically significant. The proportion was higher among male caregivers (97.2% in Round 2 and 95.1% in Round 1) compared with female caregivers (80.4% in Round 2 and 75.6% in Round 1), with no statistically significant differences between the rounds. Among those who ever attended school, primary school was the highest level among the majority of caregivers. Table 7 presents details on the caregivers' education, by survey round.

Table 7. Caregivers' educational background, by survey round[1]

Education	Round 1		Round 2		*p* value
	n / N	% (95% CI)	n / N	% (95% CI)	
Female caregivers					
Ever attended	127/168	75.6 (69.1–82.1)	119/148	80.4 (74.0–86.8)	0.304
Highest level attended					
Preprimary	0/127	0.0	1/119	0.8 (0.0–2.0)	0.286
Primary	106/127	83.5 (77.0–89.9)	95/119	79.8 (72.6–87.0)	0.461
Secondary	19/127	15.0 (8.8–21.2)	22/119	18.5 (11.5–25.5)	0.458
College/University	2/127	1.6 (0.0–3.7)	1/119	0.8 (0.0–2.5)	0.600
Male caregivers					
Ever attended	39/41	95.1(88.5–100.0)	35/36	97.2 (91.9–100.0)	0.635
Highest level attended					
Preprimary	0/39	0.0	0/35	0.0	-
Primary	24/39	61.5 (46.3–76.8)	20/35	57.1(40.7–73.5)	0.701
Secondary	14/39	35.9 (20.8–50.9)	12/35	34.3 (18.6–50.0)	0.885
College/University	1/39	2.6 (0.0–7.5)	3/35	8.6 (0.0–-1.8)	0.254
Both sexes					
Ever attended	166/209	79.4 (73.9–84.9)	154/184	83.7 (78.4–89.0)	0.278
Highest level attended					
Preprimary	0/166	0.0	1/154	0.7 (0.0–1.9)	0.298
Primary	130/166	78.3 (72.0–84.6)	115/154	74.7 (67.8–81.5)	0.443
Secondary	33/166	19.9 (13.8–26.0)	34/154	22.1(15.5–28.6)	0.629
College/University	3/166	1.8 (0.0–3.8)	4/154	2.6 (0.0–5.1)	0.629

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

Children

Overall, approximately one-half of the children living under the care of the caregivers interviewed were female (Table 8). There were slightly more females than males in Round 1, and slightly fewer females compared with males in Round 2, but this change was not statistically significant. The age distributions of the children were similar in both rounds. The highest proportion of children represented in the surveys were those ages 10–14 years, constituting 40.7 percent in Round 1 and 35.2 percent in Round 2. Table 8 shows the distribution of the children, by sex and age.

Table 8. Characteristics of children, by survey round

Child's age (years)	Round 1		Round 2		*p* value
	n / N	% (95% CI)	n / N	% (95% CI)	
Sex					
Female	366/718	51.0 (47.3–54.6)	316/654	48.3 (44.5–52.1)	0.326
Male	352/718	49.0 (45.4–52.7)	338/654	51.7 (47.9–55.5)	0.326
Age					
0–4	80/718	11.1(8.8–13.4)	75/654	11.5(9.0–13.9)	
0–5 months	8/718	1.1(0.3–1.9)	5/654	0.8 (0.0–1.4)	
6–11 months	0/718	0.0	1/654	0.2 (0.0–0.5)	
12–23 months	4/718	0.5 (0.0–1.1)	9/654	1.4 (0.5–2.3)	
2–4 years	68/718	9.5 (7.3–11.6)	60/654	9.2 (7.0–11.4	
5–9	200/718	27.9 (24.6–31.1)	177/654	27.1 (23.7–30.5)	
10–14	292/718	40.7 (37.1–44.3)	230/654	35.2 (31.5–38.8	
15–17	146/718	20.3 (17.4–23.3)	172/654	26.3 (22.9–29.7)	
All ages	**718/718**	**100.0**	**654/654**	**100.0**	

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, six households interviewed at both points in time had graduated between 2016 and 2018, representing 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 project activities or received services from the Timiza 90 project. They were also asked whether they had participated in or received the services in the six months preceding each survey round. The proportion of caregivers who reported that they had ever participated in project activities or ever received services from Timiza 90 declined between 2016 and 2018, from 94.5 percent to 85.5 percent (Table 9). This decline was statistically significant ($p<0.01$). Nearly the same proportion of female and male caregivers reported ever participating in project activities or receiving services in Round 1 (94.5% versus 94.1%, respectively). However, in Round 2, although the proportion declined for both sexes, the decline was much higher for females than for males. The proportion of caregivers who reported that they had participated in project activities or received the services in six months before the survey also declined between the two survey rounds, from 72.3 percent to 57.1 percent, and the decline was highly significant. These results are shown in Table 9.

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

Caregivers	N	Round 1 % (95% CI)	Round 2 % (95% CI)	*p* value
Female caregivers[1]				
Ever received services	145	94.5(90.7–98 .2)	85.5 (79.7–91.3)	0.009
Received services in the past six months		75.2 (68.1–82.3)	56.6 (48.4–64.7)	0.001
Male caregivers				
Ever received services	34	94.1(85.8–100.0)	88.2 (76.8–99.6)	0.325
Received services in the past six months		58.8 (41.4–76.3)	55.9 (38.3–73.5)	0.813
Both sexes				
Ever received services	184	94.0 (90.6–97.5)	85.9 (80.8–90.9)	0.007
Received services in the past six months		72.3 (65.8–78.8)	57.1(49.8–64.3)	0.003

[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 past 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 the project in Round 1 and Round 2. Only six of the ten were included in Round 1. The other four services added during 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 given in Table 10. Overall, in Round 2, there was a significant decline in the likelihood of the caregivers reporting that their households received any of the six services that they were asked about in both rounds. The highest declines were noted in shelter (32.6% in Round 1 to 4.3% in Round 2) and education support (81.5% in Round 1 to 59.2% in Round 2). Of the additional services included only in Round 2, HIV testing and counselling was the most reported service, at 44.6 percent, followed by support for declaring HIV status and referral to ART services, both at about 22 percent.

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

Type of service (n=184)	Round 1 % (95% CI)	Round 2 % (95% CI)	*p* value
Psychosocial counselling	59.2 (52.1–66.4)	38.6 (31.5–45.7)	<0.001
Health or nutrition	55.4 (48.2–62.7)	31.5 (24.7–38.3)	<0.001
Education	81.5 (75.9–87.2)	59.2 (52.1–66.4)	<0.001
Shelter	32.6 (25.8–39.4)	4.3 (1.4–7.3)	<0.001
Household economic strengthening	35.9	25.5	0.026

Type of service (n=184)	Round 1	Round 2	*p* value
	% (95% CI)	% (95% CI)	
	(28.9–42.9)	(19.2–31.9)	
Legal and social protection	38.6 (31.5–45.7)	21.7 (15.7–27.8)	<0.001
HIV testing and counselling	N/A[1]	44.6 (37.3–51.8)	N/A
Referral to ART	N/A[1]	21.7 (15.7–27.8)	N/A
Support for disclosing HIV status	N/A[1]	22.3 (16.2–28.4)	N/A
Referral to GBV services	N/A[1]	6.5 (2.9–10.1)	N/A

[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 significant decline in the proportion of children too sick to participate in their daily activities, from 25.8 percent in Round 1 to 13.6 percent in Round 2, $p<0.01$. Although there was a decline across all age groups, the decline was only significant for females ages 5–9 years. By sex, the decline was statistically significant for females (27.4% in Round 1 versus 11.2% in Round 2, $p<0.01$), whereas for male children, there was only a slight decline. Although there was a decline in the proportion of children in the age category zero to four years, they remained more likely to be too sick to participate in daily activities in both survey rounds than any other age category, at 31.1% in Round 1 and 22.2% in Round 2.

Table 11. Percentage of children too sick to participate in daily activities

Child's age (years)	N	Round 1	Round 2	*p* value
		% (95% CI)	% (95% CI)	
Females				
0–4	R1: 15	40.0	17.8	0.199
	R2: 18	(11.9–68.1)	(0.0–38.6)	
5–9	R1: 50	28.9	9.2	0.030
	R2: 48	(14.8–43.1)	(0.0–18.5)	
10–14	R1: 103	24.4	12.8	0.080
	R2: 97	(14.6–34.2)	(5.2–20.4)	
15–17	R1: 41	28.9	23.7	0.600
	R2: 49	(14.3–43.6)	(10.0–37.3)	
All female children (0–17)	R1: 298	**27.4**	**11.2**	**<0.001**
	R2: 303	**(21.2-33.6)**	**(7.2–15.3)**	
Males				
0–4	R1: 19	34.4	18.8	0.333
	R2: 19	(9.2–59.6)	(0.0–40.2)	
5–9	R1: 67	6.2	16.0	0.072
	R2: 69	(18.2–43.1)	(5.9—26.1)	
10–14	R1: 74	16.7	15.0	0.802
	R2: 80	(7.3–26.1)	(6.3–23.7)	
15–17	R1: 43	29.7	14.9	0.148
	R2: 52	(14.8–44.7)	(3.8–25.9)	
All male children (0–17)	R1: 301	**23.7**	**14.8**	**0.021**
	R2: 308	**(18.0–29.4)**	**(9.8–19.9)**	
Both sexes				
0–4	R1: 42	31.1	22.2	0.392
	R2: 41	(14.9–47.4)	(7.6–36.9)	
5–9	R1: 143	30.2	13.0	0.003
	R2: 147	(21.5–38.8)	(6.6–19.5)	
10–14	R1: 213	19.6	12.7	0.109
	R2: 203	(13.1–26.2)	(7.2–18.1)	
15–17	R1: 100	29.0	19.1	0.127
	R2: 125	(19.6–38.4)	(11.3–27.0)	
All ages (0–17)	**R1: 631**	**25.8**	**13.6**	**<0.001**
	R2: 654	**(21.2–30.4)**	**(10.0–17.2)**	

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 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 children in their care, from 82.5 percent in Round 1 to 89.6 percent in Round 2, $p<0.05$ (Table 12). A statistically significant increase was observed for female children (83.1% in Round 1 versus 91.4% in Round 2, $p<0.01$) and for male children (80.7% in Round 1 versus 90.8% in Round 2, $p<0.05$). The detailed results are presented in Table 12.

Table 12. Percentage of children whose primary caregiver knows the child's HIV status

Age (years)	N – Number of children	Round 1	Round 2	*p* value
		% (95% CI)	% (95% CI)	
Females				
0–4	R1: 15	73.3	86.7	0.334
	R2: 18	(48.0–98.7)	(67.2–100.0)	
5–9	R1: 50	86.8	97.4	0.103
	R2: 48	(75.6–98.1)	(92.0–100.0)	
10–14	R1: 103	80.9	89.9	0.126
	R2: 97	(71.6–90.2)	(82.8–96.9)	
15–17	R1: 41	94.7	93.4	0.812
	R2: 49	(87.3–100.0)	(85.6–100.0)	
All female children (0–17)	**R1: 298**	**83.1**	**91.4**	**0.022**
	R2: 303	**(77.2–88.9)**	**(87.2–95.6)**	
Males				
0–4	R1: 19	87.5	81.3	0.581
	R2: 19	(69.3–100.0)	(59.8–100.0)	
5–9	R1: 67	88.0	96.0	0.073
	R2: 69	(79.6–96.4)	(90.4–100.0)	
10–14	R1: 74	85.0	92.8	0.163
	R2: 80	(75.7–94.3)	(86.2–99.3)	
15–17	R1: 43	74.3	94.6	0.017
	R2: 52	(59.8–88.8)	(87.0–100.0)	
All male children (0–17)	R1: 301	**80.7**	**90.8**	**0.011**
	R2: 308	**(74.4–87.1)**	**(86.3–95.3)**	
Both sexes				
0–4	R1: 42	80.0	81.7	0.856
	R2: 41	(64.8–95.2)	(67.4–95.9)	
5–9	R1: 143	86.0	95.5	0.019
	R2: 147	(79.2–92.9)	(91.1–99.9)	
10–14	R1: 213	82.9	90.0	0.088
	R2: 203	(76.3–89.5)	(84.9–95.1)	
15–17	R1: 100	80.9	95.5	0.004
	R2: 125	(72.2–89.5)	(91.2–99.8)	

Age (years)	N – Number of children	Round 1	Round 2	p value
		% (95% CI)	% (95% CI)	
All ages (0–17)	**R1: 631** **R2: 654**	**82.5** **(77.6–87.4)**	**89.6** **(85.8–93.5)**	**0.021**

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 3.8 percent of all children in Round 2 were reported to be living with HIV compared with the 8.3 percent reported during Round 1, a statistically significant decline (Table 13). A decline was also seen among female children, but the difference was not statistically significant.

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

Age (years)	N – Number of children	Round 1	Round 2	p value
		% (95% CI)	% (95% CI)	
Females				
0–4	R1: 10 R2: 11	10.0 (0.0–32.6)	0.0	0.343
5–9	R1: 42 R2: 41	12.5 (0.4–24.6)	0.0	0.044
10–14	R1: 79 R2: 75	6.4 (0.0–13.0)	6.4 (0.0–13.0)	1.000
15–17	R1: 37 R2: 45	8.8 (0.0–18.9)	8.8 (0.0–18.9)	1.000
All female children (0–17)	**R1: 248** **R2: 249**	**8.8** **(3.9–13.7)**	**3.7** **(0.8–6.7)**	**0.009**
Males				
0–4	R1: 14 R2: 15	12.5 (0.0–32.2)	0.0	0.191
5–9	R1: 61 R2: 62	1.9 (0.0–4.5)	1.1 (0.0–3.4)	0.675
10–14	R1: 59 R2: 63	3.1 (0.0–7.8)	8.3 (0.8–15.9)	0.133
15–17	R1: 31 R2: 37	0.0	3.8 (0.0–9.3)	0.161
All male children (0–17)	**R1: 250** **R2: 252**	**5.8** **(2.3–9.4)**	**3.5** **(0.9–6.1)**	**0.121**
Both sexes				
0–4	R1: 32 R2: 29	5.6 (0.0–13.6)	2.4 (0.0–7.3)	0.506

Age (years)	N – Number of children	Round 1	Round 2	*p* value
		% (95% CI)	% (95% CI)	
5–9	R1: 125	7.5	0.4	0.014
	R2: 126	(2.0–12.9)	(0.0–1.3)	
10–14	R1: 170	4.4	6.6	0.361
	R2: 162	(0.5–8.3)	(2.0–11.2)	
15–17	R1: 77	4.8	6.3	0.159
	R2: 94	(0.0–10.2)	(0.6–12.1)	
All ages (0–17)	**R1: 542**	**8.3**	**3.8**	**0.003**
	R2: 555	**(4.6–12.0)**	**(1.9–5.7)**	

Overall, all children who were reported by the caregivers to be living with HIV were on ART in both Round 1 and Round 2.

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. Notably, no child was found to be undernourished for the Timiza 90 survey in both Round 1 and Round 2 of the survey.

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 84.4 percent to 80 percent, but this decline was not statistically significant (Table 14). Overall, the findings showed an increase in some activities and a decrease in others, as shown in Table 14. The only statistically significant change was an increase in the proportion of boys (but not girls) who engaged in telling stories (as reported by their caregivers), from 40.6 percent in Round 1 to 75.0 percent in Round 2 ($p<0.05$).

Table 14. 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	N	Round 1	Round 2	*p* value
		% (95% CI)	% (95% CI)	
Females				
Read books or looked at picture books	R1: 15 R2: 18	60.0 (31.9–88.1)	66.7 (39.6–93.7)	0.751
Told stories	R1: 15 R2: 18	60.0 (31.9–88.1)	60.0 (31.9–88.1)	1.000
Sang songs or lullabies	R1: 15 R2: 18	93.3 (79.0–100.0)	66.7 (39.6–93.7)	0.104
Engaged in play	R1: 15 R2: 18	93.3 (79.0–100.0)	73.3 (48.0–98.7)	0.189
Named, counted, or drew things	R1: 15 R2: 18	60.0 (31.9–88.1)	53.3 (24.7–81.9)	0.719
One or more activities	R1: 15 R2: 18	93.3 (79.0–100.0)	80.0 (57.1–100.0)	0.334
Males				
Read books or looked at picture books	R1: 19 R2: 19	56.3 (30.7–81.8)	65.6 (40.4–90.8)	0.606
Told stories	R1: 19 R2: 19	40.6 (14.5–66.8)	75.0 (51.2–98.8)	0.011
Sang songs or lullabies	R1: 19 R2: 19	68.8 (45.2–92.3)	71.9 (48.1–95.6)	0.827
Engaged in play	R1: 19 R2: 19	78.1 (56.4–99.8)	75.0 (53.2–96.8)	0.827
Named, counted, or drew things	R1: 19 R2: 19	59.4 (33.2–85.5)	65.6 (40.4–90.8)	0.708
One or more activities	R1: 19 R2: 19	78.1 (56.4–99.8)	84.4 (65.6–100.0)	0.609
Both sexes all children <5				
Read books or looked at picture books	R1: 42 R2: 41	56.1 (38.5–73.7)	61.7 (44.2–79.1)	0.670
Told stories	R1: 42 R2: 41	54.4 (36.5–72.4)	61.7 (44.2–79.1)	0.536
Sang songs or lullabies	R1: 42 R2: 41	76.7 (62.1–91.2)	68.3 (51.7–84.9)	0.409
Engaged in play	R1: 42 R2: 41	83.3 (70.9–95.8)	70.0 (54.0–86.0)	0.162
Named, counted, or drew things	R1: 42	58.3	55.0	0.774

Sex of child/Activity	N	Round 1	Round 2	*p* value
		% (95% CI)	% (95% CI)	
One or more activities	R2: 41	(40.6–76.1)	(37.1–72.9)	0.633
	R1: 42	84.4	80.0	
	R2: 41	(72.0–96.9)	(65.6–94.4)	

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

Questions about preprimary education were included in the surveys. Specifically, caregivers were asked about pre-school 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 15, we present the results for children ages 2–5 years. Overall, there was an increase in the proportion of children ages 2–5 years who were enrolled in school, from 58.7 percent in Round 1 to 71.6 percent in Round 2. This change was not statistically significant. The increase in enrollment was noted for both females and males between the two survey rounds by a similar margin. In terms of school attendance, the proportion of children regularly attending school increased from 40.5 percent in Round 1 to 56.8 percent in Round 2 (not statistically significant).

Table 15. Percentage of children ages 2–5 years who were enrolled and regularly attended preschool

Child's age (years)	N	Round 1	Round 2	*p* value
		% (95% CI)	% (95% CI)	
Females				
Enrolled	R1: 20	71.1	78.9	0.591
	R2: 21	(49.3–92.8)	(58.8–99.1)	
Regularly attending school	R1: 20	36.8	65.8	0.069
	R2: 21	(13.0–60.7)	(43.0–88.6)	
Males				
Enrolled	R1: 33	44.4	70.4	0.080
	R2: 30	(25.2–63.7)	(52.8–87.9)	
Regularly attending school	R1: 33	33.3	55.6	0.123
	R2: 30	(15.1–51.5)	(36.3–74.8)	
Both sexes				
Enrolled	R1: 66	58.7	71.6	0.194
	R2: 58	(45.4–72.0)	(58.7–84.5)	
Regularly attending school	R1: 66	40.5	56.8	0.110
	R2: 58	(27.3–53.7)	(42.7–70.9)	

Education

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

As shown in Table 16, 97.5 percent of children ages 5–17 years were enrolled in school in both survey rounds. The findings indicated no significant differences between the two rounds, both in terms of sex and age groups.

Table 16. Percentage of children enrolled in school

Child's age (years)	N	Round 1 % (95% CI)	Round 2 % (95% CI)	*p* value
Females				
5–9	R1: 50	100.0	97.4	0.324
	R2: 48		(92.0–100.0)	
10–14	R1: 103	100.0	100.0	N/A
	R2: 97			
15–17	R1: 41	94.7	97.4	0.324
	R2: 49	(87.3–100.0)	(92.0–100.0)	
All female children (5–17)	R1: 264	98.8	98.3	0.648
	R2: 267	(97.6–100.0)	(96.5–100.0)	
Males				
5–9	R1: 67	98.0	95.7	0.483
	R2: 69	(94.0–100.0)	(90.5–100.0)	
10–14	R1: 74	100.0	100.0	N/A
	R2: 80			
15–17	R1: 43	91.9	94.6	0.324
	R2: 52	(82.7–100.0)	(86.9–100.0)	
All male children (5–17)	R1: 264	**96.0**	**96.9**	**0.603**
	R2: 274	**(92.9–99.1)**	**(94.3–99.4)**	
Both sexes				
5–9	R1: 143	99.4	98.1	0.224
	R2: 147	(98.3–100.0)	(96.1–100.0)	
10–14	R1: 213	100.0	100.0	N/A
	R2: 203			
15–17	R1: 100	93.8	94.7	0.734
	R2: 125	(88.8–98.9)	(90.1–99.2)	
All ages (5–17)	R1: 558	**97.5**	**97.5**	**0.938**
	R2: 579	**(95.7–99.3)**	**(95.8–99.3)**	

Among all children ages 5–17 years, 74.1 percent were regularly attending school (i.e., did not miss any school days in the week preceding the survey) in Round 1 compared with 88.0 percent in Round 2 (Table 17). The increase in regular school attendance was statistically significant for both female and male children. When we examined the results by age, we noted a significant increase for children ages 5–9 years ($p<0.01$) and 10 to 14 years ($p<0.01$).

Table 17. Percentage of children regularly attending school

Child's age (years)	N	Round 1	Round 2	*p* value
		% (95% CI)	% (95% CI)	
Females				
5–9	R1: 50	73.2	88.2	0.072
	R2: 48	(60.0–86.5)	(77.7–98.6)	
10–14	R1: 103	81.9	93.0	0.038
	R2: 97	(73.5–90.3)	(87.5–98.5)	
15–17	R1: 41	61.8	78.9	0.124
	R2: 49	(45.9–77.8)	(65.9–92.0)	
All female children (5–17)	**R1: 264**	**75.1**	**90.0**	**<0.001**
	R2: 267	**(68.8–81.5)**	**(85.9–94.2)**	
Males				
5–9	R1: 67	71.7	84.0	0.164
	R2: 69	(59.4–84.0)	(73.8–94.2)	
10–14	R1: 74	70.8	90.3	0.002
	R2: 80	(59.4–82.3)	(84.2–96.4)	
15–17	R1: 43	77.0	80.2	0.662
	R2: 52	(63.1–91.0)	(67.6–92.8)	
All male children (5–17)	**R1: 264**	**71.7**	**86.5**	**<0.001**
	R2: 274	**(64.9–78.5)**	**(81.7–91.4)**	
Both sexes				
5–9	R1: 143	70.9	87.0	0.006
	R2: 147	(62.2–79.6)	(80.7–93.3)	
10–14	R1: 213	77.7	91.8	<0.001
	R2: 203	(71.0–84.5)	(87.7–96.0)	
15–17	R1: 100	72.8	78.3	0.371
	R2: 125	(63.3–82.4)	(70.1–86.5)	
All ages (5–17)	**R1: 558**	**74.1**	**88.0**	**<0.001**
	R2: 579	**(34.9–79.2)**	**(84.6–91.5)**	

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

Table 18 presents the percentage of children ages 5–17 reported to have progressed in school during the past 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). The findings showed a statistically significant increase: 92.3 percent of children ages 5–17 years who were enrolled in school in the previous year progressed to the next level in Round 1, compared with 95.7 percent in Round 2, $p<0.05$. A similar upward trend was observed for both females and males; however, when we looked at gender separately, the increase was not statistically significant. The increase was noted for all age groups, but was only statistically significant for children ages 10–14 years.

Table 18. Percentage of children ages 5–17 who progressed in school during the past year

Child's age (years)	N	Round 1 % (95% CI)	Round 2 % (95% CI)	*p* value
Females				
5–9	R1: 49	95.6	95.6	1.000
	R2: 45	(89.0–100.0)	(89.0–100.0)	
10–14	R1: 103	92.0	96.6	0.152
	R2: 97	(85.6–98.4)	(93.0–100.0)	
15–17	R1: 40	94.4	100.0	0.160
	R2: 48	(86.6–100.0)		
All female children (5–17)	**R1: 262**	**91.8**	**96.5**	**0.036**
	R2: 266	**(87.8–95.8)**	**(94.0–99.1)**	
Males				
5–9	R1: 63	89.9	93.4	0.546
	R2: 65	(81.5–98.4)	(86.4–100.0)	
10–14	R1: 74	93.3	95.3	0.634
	R2: 80	(87.3–99.4)	(90.3–100.0)	
15–17	R1: 40	92.6	91.7	0.840
	R2: 49	(83.9–100.0)	(82.8–100.0)	
All male children (5–17)	**R1: 260**	**93.4**	**94.9**	**0.398**
	R2: 271	**(90.1–96.6)**	**(92.3–97.6)**	
Both sexes				
5–9	R1: 142	93.1	93.1	1.000
	R2: 143	(88.6–97.6)	(88.1-98.1)	
10–14	R1: 213	92.0	97.1	0.034
	R2: 203	(87.4–96.6)	(94.7–99.5)	
15–17	R1: 97	94.7	96.2	0.580
	R2: 121	(90.2–99.1)	(92.7–99.8)	
All ages (5–17)	**R1: 556**	**92.3**	**95.7**	**0.045**
	R2: 576	**(89.7–95.0)**	**(93.8–97.6)**	

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. The caregivers were asked whether the children in their care had birth certificates, and when they reported yes, they were asked to show the birth certificate to the interviewers. 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: 38.9 percent in Round 1 and 47.9 percent in Round 2 (Table 19).

This overall increase in the percentage of verified birth certificates was statistically significant, $p<0.05$. Statistically significant increases were observed in all age groups.

Table 19. Percentage of children (ages 0–17 years) who have a verified birth certificate

Child's age (years)	N	Round 1	Round 2	p value
		% (95% CI)	% (95% CI)	
Females				
0–4	R1: 15	26.7	38.9	0.334
	R2: 18	(1.3–52.0)	(12.9–64.9)	
5–9	R1: 50	38.2	44.7	0.442
	R2: 48	(22.7–53.6)	(28.6–60.9)	
10–14	R1: 103	40.8	59.7	0.007
	R2: 97	(29.1–52.5)	(48.1–71.2)	
15–17	R1: 41	68.4	61.8	0.499
	R2: 49	(52.9–83.9)	(45.9–77.8)	
All female children (0–17)	**R1: 298**	**42.4**	**51.5**	**0.048**
	R2: 303	**(35.0–49.9)**	**(44.0–58.9)**	
Males				
0–4	R1: 19	15.6	53.1	0.023
	R2: 19	(0.0–34.4)	(26.5–79.7)	
5–9	R1: 67	21.0	45.0	<0.00
	R2: 69	(9.8–32.2)	(30.9–59.1)	
10–14	R1: 74	38.6	56.9	0.003
	R2: 80	(26.2–51.0)	(44.5–69.4)	
15–17	R1: 43	62.2	59.5	0.786
	R2: 52	(46.2–78.1)	(43.3–75.6)	
All male children (0–17)	**R1: 301**	**33.8**	**48.3**	**<0.001**
	R2: 308	**(26.9–40.6)**	**(40.8–55.8)**	
Both sexes				
0–4	R1: 42	22.2	46.1	0.021
	R2: 41	(6.8–37.7)	(28.5-63.8)	
5–9	R1: 143	26.6	44.4	0.001
	R2: 147	(17.8–35.3)	(34.1–54.6)	
10–14	R1: 213	40.4	56.6	0.001
	R2: 203	(31.8–48.9)	(47.9–65.4)	
15–17	R1: 100	63.0	60.6	0.720
	R2: 125	(52.5–73.4)	(50.0–71.2)	
All ages (0–17)	**R1: 631**	**38.9**	**47.9**	**0.011**
	R2: 654	**(33.1–44.8)**	**(41.7–54.1)**	

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

Caregivers were asked whether they think that hitting or beating a child is an appropriate means of discipline or control in the home or at school. The proportion who agreed went up from 71.2 percent in Round 1 to 79.3 percent in Round 2 (Table 20). The increase was statistically significant ($p<0.05$). When we considered the results by gender or by age, the increase was not statistically significant. The results are shown in Table 20.

Table 20. 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

Sex and age of caregiver	N	Round 1	Round 2	*p* value
		% (95% CI)	% (95% CI)	
Females				
<18	R1: 0	--	--	N/A
	R2: 0			
18–30	R1: 8	75.0	100.0	0.171
	R2: 8	(36.3–100.0)		
31–50	R1: 68	66.2	76.5	0.146
	R2: 68	(54.6–77.7)	(66.1–86.8)	
51+	R1: 54	74.1	81.5	0.322
	R2: 54	(62.0–86.1)	(70.8–92.2)	
All females	**R1: 145**	**72.4**	**80.7**	**0.064**
	R2: 145	**(65.1–79.8)**	**(74.2–87.2)**	
Males				
<18	R1: 0	--	--	N/A
	R2: 0			
18–30	R1: 2	100.0	100.0	N/A
	R2: 2			
31–50	R1: 15	80.0	73.3	0.670
	R2: 15	(57.7–100.0)	(48.0–98.7)	
51+	R1: 16	50.0	68.8	0.188
	R2: 16	(22.5–77.5)	(43.2–94.3)	
All males	**R1: 34**	**64.7**	**73.5**	**0.374**
	R2: 34	**(47.8–81.6)**	**(57.9–89.2)**	
Both sexes				
<18	R1: 0	--	--	N/A
	R2: 0			
18–30	R1: 10	80.0	100.0	0.168
	R2: 10	(49.8–100.0)		
31–50	R1: 83	68.7	75.9	0.259

Sex and age of caregiver	N	Round 1	Round 2	*p* value
		% (95% CI)	% (95% CI)	
	R2: 83	(58.5–78.9)	(66.5–85.3)	
51+	R1: 70	68.6	78.6	0.128
	R2: 70	(57.4–79.7)	(68.7–88.4)	
All ages	**R1:184**	**71.2**	**79.3**	**0.043**
	R2: 184	**(64.6–77.8)**	**(73.4–85.3)**	

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 21. Overall, 66.8 percent of all households reported that they were able to pay for expected expenses in Round 2 compared with only 35.3 percent in Round 1. This increase was statistically significant for both female and male caregivers.

Table 21. Percentage of households able to access money to pay for expected household expenses

Sex of caregiver	N	Round 1	Round 2	*p* value
		% (95% CI)	% (95% CI)	
Females	R1: 145	35.2	67.6	<0.001
	R2: 145	(27.3–43.0)	(59.9–75.3)	
Males	R1: 34	32.4	64.7	0.003
	R2: 34	(15.8–48.9)	(47.8–81.6)	
All households	**R1: 184**	**35.3**	**66.8**	**<0.001**
	R2: 184	**(28.4–42.3)**	**(60.0–73.7)**	

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 19.0 percent in Round 1 to 53.4 percent in Round 2 (Table 22). The increase was only marginally significant for males ($p<0.1$), but highly significant for females, where the proportion who responded in the affirmative more than tripled between rounds. These results are given in Table 22.

Table 22. Percentage of households able to access money to pay for unexpected household expenses

Sex of caregiver	N	Round 1	Round 2	*p* value
		% (95% CI)	% (95% CI)	
Females	R1: 92 R2: 92	16.3 (8.6–2.4)	55.4 (45.1–65.8)	<0.001
Males	R1: 21 R2: 21	28.6 (7.5–49.6)	52.4 (29.1–75.7)	0.096
All households	**R1: 116** **R2: 116**	**19.0** **(11.7–26.2)**	**53.4** **(44.2–62.7)**	**<0.001**

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. These results will support evidence-informed strategies, programming, and resource allocation by the PEPFAR-supported local project, Timiza 90; 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 positive progress for seven of the eleven indicators, reflecting an overall improvement in the Timiza 90 project's activities between 2016 and 2018.

All respondents were listed as receiving OVC services from Timiza 90 in 2016 because this was a condition for study participation. However, not all respondents reported that they had ever received services from the project. This 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 did not change it for Round 2 so that we could measure change over time. However, these factors do not explain the statistically significant decline in the proportion of caregivers who said that they had ever received services from the project (from 94.5% in Round 1 to 85.5% in Round 2). We hypothesize that caregivers simply did not consider services that they had received years earlier.

Similarly, significantly fewer households reported receiving services in the past six months (72.3% in Round 1 versus 57.1% in Round 2). A decrease of as much as 3 percent from Round 1 to Round 2 was expected because 3 percent of the households reported that they had graduated from the program between Round 1 and Round 2. These are the households that were deemed to no longer require services and were no longer receiving services. They would say that they had not received services in the past six month if they had graduated more than six months ago. But an overall decrease is also not surprising because some services are cumulative. For example, for those children who were helped in getting a birth certificate before the 2016 survey, the caregivers would not have reported this service again for the six months before the 2018 survey.

When asked about specific services received in the past six months, there was a significant decline across all six services that the caregivers were also asked about in the 2016 survey. The Timiza 90 project uniquely reported some delay in receipt of project funding that hampered its service provision. However, despite the decline in service provision in the past six months preceding the Round 2 survey, education and psychosocial counselling still remained the most dominant services provided for which respondents were asked in both rounds. Interestingly, the services that were not asked about in 2016—HIV testing and counseling (reported by 44.6%), referral to ART (21.7%), support for disclosing HIV status (22.3%), and referral to GBV services (6.5%)—compared fairly well with the six conventional services in terms of likelihood of being reported that were asked about in both 2016 and 2018. These percentages show that there is demand for these services.

Regarding **children's health**, there was a significant decline in the proportion of children who were too sick to participate in daily activities (25.8% in Round 1 versus 13.6% in Round 2). These findings suggest that there may be positive impact of Timiza 90 project's activities that aim to provide children with much-needed healthcare services. There was also a significant increase in caregivers' knowledge of HIV status of children in their care, from 82.5 percent in Round 1 to 89.6 percent in Round 2, indicating that the Timiza 90 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 the case management approach may be working. 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 Timiza 90 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 Timiza 90 beneficiaries. Based on MUAC measurement of OVC ages 6–59 months, no child was found to be undernourished in both rounds. This finding should be interpreted cautiously because the sample size for this age group was very small, yet it 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).

Although there was widespread engagement of caregivers or other household members over 15 years old in **stimulating activities** with young children in the household, the proportion engaging with the children in their care declined between Round 1 and Round 2. Timiza 90 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** we measured is preschool attendance of children age two to five years. The percentage of young children enrolled in preschool significantly increased, from 58.7 percent in 2016 to 71.6 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).

There was a clear improvement in **OVC education** between 2016 and 2018 for children five to 17 years. Although school enrollment remained constant at about 98 percent in both survey rounds, regular school attendance (i.e., not missing any school days in the week preceding the survey) significantly increased, from 74.1 percent in Round 1 to 88.0 percent in Round 2. The increase in school attendance between 2016 and 2018 was statistically significant. Although this may not be attributed only to Timiza 90 project interventions, this finding suggests that the project's education interventions may be working. Although reasons for missing school were not asked in the survey, there is some evidence from the child health indicator that the reduction in school absence may be partly due 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). 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 Timiza 90 project, at least in part, either directly (through activities aimed at improved school attendance), or indirectly, through 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**, Timiza 90 provides assistance in registering births and helping caregivers obtain birth certificates for their children. Our finding shows a marked increase in the proportion of children with a verified birth certificate, reflecting Timiza 90's focus on systematically registering all births that occur in their supported households. Government programs to register children in the area may have also contributed to this observed improvement, especially given that Timiza 90 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 still 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 71.2 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 school compared with 79.3 percent in Round 2. This statistically significant increase is not a positive given the project's aim to protect the rights of children. Acceptance of violence against children may reflect cultural norms that condone violence, in general. Moreover, public debate around student's 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 caregiver 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 Timiza 90 to increase its efforts toward reducing **harsh physical punishment** against OVC.

As to **household economic well-being and resilience**, evidence from the data shows that the proportion of households that could pay for expected household expenses nearly doubled, from 35.3 percent in Round 1 to 66.8 percent in Round 2. There was a significant increase in the proportion of households that had experienced an unexpected household expense in the last 12 months and were able to access money to meet it, from 19.0 percent in Round 1 to 53.4 percent in Round 2. Evidence from the data indicates that the Timiza 90 project's focus on addressing household economic resilience by promoting entrepreneurial training and linking its 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 may be working.

Limitations of the Study

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

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 rate.
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 child 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, the 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 results directly to the Timiza 90 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 Timiza 90 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 Timiza 90 project and for other OVC programs in Kenya.

1. Clearly, some activities work and work well. In particular, the economic empowerment activities appear to be particularly successful. For household economic well-being to continue to improve, Timiza 90 should reinforce the existing households' economic strengthening strategies, such as linking households' access to social safety-net programs; 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.
2. However, two indicators have regressed, instead of improving, in the two years between the two survey rounds. They are attitudes about corporal punishment and engagement of young children in stimulating activities. A greater focus should be given to activities related to these indicators, as follows:
    a. 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, Timiza 90 could design community sensitization activities that address the dangers associated with corporal punishment and tackle related norms and attitudes.
    b. Sensitize CHVs to the importance of discussing child participation in stimulating activities with caregivers, so that they give the issue more emphasis in their communications with caregivers.
    c. Design opportunities for stimulating activities for young children at the community level, such as creating play areas at health facilities and at other public venues.
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. With respect 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 https://www.measureevaluation.org/resources/publications/ms-14-90.

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

Settergren, S. K., Faye, C. M. , & Beguy, D. (2018). *Monitoring outcomes of PEPFAR orphans and vulnerable children programs in Kenya: Timiza 90 2016 survey findings* (tr-17-223). Chapel Hill, NC, USA: MEASURE Evaluation, University of North Carolina. Retrieved from https://www.measureevaluation.org/resources/publications/tr-17-223.

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

APPENDIX A. QUESTIONNAIRES

IDENTIFICATION DATA

001	QUESTIONNAIRE IDENTIFICATION NUMBER	
002	OVC Service Delivery Partner	Timiza 90 MWEND0 WRP/HJFMRI
002	COUNTY	
003	Subcounty	
005	WARD	
006	VILLAGE/TOWN	
007	TYPE OF LOCATION	Urban 1 Rural 2
008	HOUSEHOLD NUMBER (from sampling list)	**[__ __]**
009	Panel survey or cross-sectional	Panel study 1 Cross sectional 2

INTERVIEW RESULT

	VISIT 1	VISIT 2	VISIT 3
DATE (day/month/year)			
INTERVIEWER RESULTS			

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) CODE	B) NAME
010	DATE INTERVIEW COMPLETED (day/month/year)		

COMMENTS

Caregivers

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

No.	Question	Coding Category	Skip
1	**Record caregiver sex.**	Female 1 Male 2	
2	IF PANEL STUDY We interviewed this household two years ago as part of the same project. Were you the caregiver that we interviewed then?	Yes 1 No 2 Don't know 8 No answer 9	
3	How old were you at your last birthday? **Do not leave blank. If unknown, ask respondent to estimate.**	[_____] years	
4	Have you personally ever received services or participated in activities from [insert name of OVC CBO]? By this, I mean have you ever been visited by a community worker, or have you ever participated in any activities organized by this organization such as a savings group or parenting program?	Yes 1 No 2 Don't know 8 No answer 9	**If No, DK, or No answer: 8**
5	How many months/years ago did you start receiving services or participating in activities from [insert name of CBO]?	[_____] months [_____] years Record 88 for Don't know;	
6	Have you personally received services or participated in activities from [insert name of CBO] in the last 6 months?	Yes 1 No 2 Don't know 8 No answer 9	

7	What types of services have you or other members of your household received from [organization] in the past 6 months?	**Yes**	**No**	**Don't know**	**No answer**
	7.1 Health or nutrition	1	2	8	9
	7.2 Education	1	2	8	9
	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
8	Have you ever attended school?	Yes 1 No 2 Don't know 8			**If No, DK, or No answer: 10**
9	What is the highest level of school you attended?	Pre-primary/nursery/ECD . . .0 Primary . . . . . .1 Secondary . . . . . .2 College . . . . . .3 University . . . . . .4 Don't know 8			
10	Do you think that hitting or beating a child is an appropriate means of discipline or control <u>in the home</u>?	Always an appropriate means of discipline . . . . . 1 Sometimes an appropriate means of discipline. . . . . 2 Rarely an appropriate means of discipline . . . . . 3 Never an appropriate means of discipline . . . . . 4 Don't know 8			
11	Do you think that hitting or beating a child is an appropriate means of discipline or control <u>at school</u>?	Always an appropriate means of discipline . . . . . 1 Sometimes an appropriate means of discipline. . . . . 2 Rarely an appropriate means of discipline . . . . . 3 Never an appropriate means of discipline . . . . . 4 Don't know 8			
12	I'm now going to read some statements and I'd like you to tell me if you agree, partially agree, or do not agree.	**Agree**	**Partially agree**	**Do not agree**	**No answer**

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
13	Do you own the house/dwelling where you live	Yes 1 No 2 Don't know 8			
14	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
	14.2 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
16	Did your household incur any <u>unexpected</u> household expenses, such as a house repair or urgent medical treatment, in the last 12 months?	Yes 1 No 2 Don't know 8 No answer 9	**If No, DK, or No answer: 18**
17	Was your household able to pay for these expenses?	Yes 1 No 2	
18a	Are there children in your care who used to receive services from [LIP name] but are no longer receiving services, since January 2018?	Yes 1 No 2 Don't know 8 No answer 9	**If No, DK, or No answer: 19**
18b	How many children in this household are no longer receiving services from [LIP name] since January 2018?	Number /__/ Don't know 98 No answer 99	**If No, DK, or No answer: 20**
19	Does this household still qualify to receive services from [LIP name]	Yes 1 No 2 Don't know 8 No answer 9	**If No, DK, or No answer: 19b** If Yes: 20
19a	Were you told that the household no longer qualifies for services from [LIP name]?	Yes 1 No 2 Don't know 8 No answer 9	
19b	When was the last time (or how many months ago) you or the children you care for received any service from [LIP name]	[_____] months [_____] years Record 88 for Don't know;	
19c	Since that time, have you or any child from this household received any service or support from	Y/N 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.***

No.	First name	Age (years)	Questionnaire		Registered beneficiary of [organization's] OVC program
			0–4 years	5–17 years	Y/N
1	*Example.* Samuel	6	-	X	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 Category			Skip
1	Is [NAME] female or male?	Female 1 Male 2			
2	How old was [NAME] at her/his last birthday? **Do not leave blank. If unknown, ask caregiver to estimate. If the child is older than 4 at last birthday, use 5–17 years questionnaire. Proceed to next household/child on list.**	[_____] years			**If No, DK, or No answer: 4**
3	3.1 Does [NAME] have a birth certificate?	Yes 1 No 2 Don't know 8 No answer 9			**If No, DK, or No answer: 4**
	3.2 Could you please show me [NAME'S] birth certificate?	Seen/Confirmed 1 Not seen/Not confirmed 2			**If 1: 4**
	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			
4	In the past 3 days, did you or any household member over 15 years of age engage in any of the following activities with [NAME]: **Read out one at a time.**	**Yes**	**No**	**Don't know**	**No answer**
	4.1 Read books to or looked a picture books with [NAME]?	1	2	8	9
	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
5	Is [NAME] currently enrolled in school (Early Child Development)?	Yes 1 No 2 Don't know 8			**If 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	**If 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 No answer 9	
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 services, etc.	Yes 1 No 2 Don't know 8 No answer 9	**If No, DK, or No answer: 14**
12	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
13	Has [NAME] received services or participated in activities from [*insert name of CBO*] in the last 6 months?	Yes 1 No 2 Don't know 8 No answer 9	
14	Has [NAME] ever been tested to see if he/she has the AIDS virus?	Yes 1 No 2 Don't know 8 No answer 9	**If No, DK, or No answer: end**
15	Do you know the results of [NAME's] test?	Yes 1 No 2 Don't know 8 No answer 9	**If No, DK, or No answer: end**
16	Did [NAME] test positive for the AIDS virus?	Yes 1 No 2 Don't know 8 No answer 9	**If No, DK, or No answer: 20**
17	Is [NAME] currently taking antiretroviral (ARV) drugs?	Yes 1 No 2 Don't know 8 No answer 9	**If No, DK, or No answer: 20**
18	When the last time [NAME] was took his/her ARV drugs?	Number of days ago: [___|___] 0=today 88=Don't know	
19	May I measure your child's mid–upper arm circumference? **Measure the child's mid–upper arm circumference using the MUAC tape and record measurement.**	[___|___].[__|___] Cm	

Child Ages 5–17 years

Age group	5–9 years	10–14 years	15–17 years

I have a few questions about [insert child's name].

No.	Question	Coding Category	SKIP
1	Is [NAME] female or male?	Female 1 Male 2	
2	How old was [NAME] at her last birthday? **Do not leave blank. If unknown, ask caregiver to estimate. If the child was less than 5 years old at last birthday, complete the 0- to 4-year-old form. If the child is 18 or older, stop the interview for this child.**	[___|____] years	
3	3.1 Does [NAME] have a birth certificate?	Yes 1 No 2 Don't know 8 No answer 9	**If No, DK, or No answer: 4**
	3.2 Could you please show me [NAME'S] birth certificate?	Seen/Confirmed 1 Not seen/Not confirmed 2	**If 1: 4**
	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	
4	Is [NAME] currently enrolled in school?	Y es 1 No 2 Don't know 8 No answer 9	**If No, DK, or No answer: 7**
5	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	

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

No.	Question	Coding Category	SKIP
10	FOR FEMALE CHILDREN, AGE 12+ 10.1 Has [NAME] ever been pregnant?	Yes 1 No 2 Don't know 8 No answer 9	**If No, DK, or No answer: 11**
	10.2 How old was [NAME] when she first became pregnant?	[_____] months Record 88 for Don't know; 99 for No answer	
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 services, etc.	Yes 1 No 2 Don't know 8 No answer 9	**If No, DK, or No answer: 14**
12	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; 99 for No answer	
13	Has [NAME] received services or participated in activities from [*insert name of CBO*] in the last 6 months?	Yes 1 No 2 Don't know 8 No answer 9	
14	Has [NAME] ever been tested to see if he/she has the AIDS virus?	Yes 1 No 2 Don't know 8 No answer 9	**If No, DK, or No answer: end**
15	Do you know the results of [NAME's] test?	Yes 1 No 2 Don't know 8 No answer 9	**If No, DK, No answer: end**
16	Did [NAME] test positive for the AIDS virus?	Yes 1 No 2 Don't know 8 No answer 9	**If No, DK, No answer: end**

No.	Question	Coding Category	SKIP
17	Does [NAME] know that s/he tested positive for the AIDS virus?	Yes 1 No 2 Don't know 8 No answer 9	
18	Is [NAME] currently taking antiretroviral (ARV) drugs?	Yes 1 No 2 Don't know 8 No answer 9	
19	When was the last time [NAME] was took his/her ARV drugs?	Number of days ago: [___|___] 0=today 88=Don't know	

1. B. Kiswahili Version

IDENTIFICATION DATA

001	QUESTIONNAIRE IDENTIFICATION NUMBER	
002	OVC Service Delivery Partner	Timiza 90 MWENDO WRP/HJFMRI
003	COUNTY	
004	Sub County	
005	WARD	
006	VILLAGE/TOWN	
007	TYPE OF LOCATION *Circle*	Urban…….. 1 Rural…….. 2
008	HOUSEHOLD NUMBER (from sampling list)	**[__ __]**
009	Panel survey or cross-sectional	Panel study 1 Cross sectional 2

INTERVIEW LOG

	VISIT 1	VISIT 2	VISIT 3
DATE (day/month/year)			
INTERVIEWER COMMENTS			

Interview comment codes: Interview completed 1; Appointment made for later today 2; Appointment made for another day 3; Refused to continue and no appointment made 4; Other (Specify) 5

010	INTERVIEWER	A) CODE	B) NAME
011	DATE INTERVIEW COMPLETED (day/month/year)		

COMMENTS:

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-L-14-00004. MEASURE Evaluation is implemented by the Carolina Population Center, University of North Carolina at Chapel Hill in partnership with ICF International; John Snow, Inc.; Management Sciences for Health; Palladium; and Tulane University. Views expressed are not necessarily those of USAID or the United States government. TR-19-375

ISBN: 978-1-64232-191-3

USAID
FROM THE AMERICAN PEOPLE

PEPFAR

MEASURE
Evaluation