



Monitoring Outcomes of PEPFAR Orphans and Vulnerable Children Programs in Haiti

Bien Et ak Santé Timoun (BEST)
2018 Survey Findings

September 2018



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Cover: The St Francis Orphanage is directed by Sister Flora, who also opened a school for 450 students. Sister Flora's work has been supported by "Hope for Haiti" (Espoir pour Haiti) since the association was created in 2007. Shown here are students in the school. Photo: Association Espoir pour Haiti, Flickr Creative Commons

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ABBREVIATIONS

ART	antiretroviral therapy
ARV	antiretroviral
BEST	Bien Et ak Santé Timoun
CI	confidence interval
ESI	essential survey indicator
EMMUS	Enquête Mortalité, Morbidité et Utilisation des Services
GBV	gender-based violence
GEM	Gender Equitable Men Scale
IHE	Institut Haïtien de l'Enfance
MER	monitoring, evaluation, and reporting
MSPP	Ministère de la Santé Publique et de la Population (Ministry of Public Health and Population)
MUAC	mid-upper arm circumference
ONPES	Observatoire National de la Pauvreté et de l'Exclusion Sociale
OVC	orphans and vulnerable children
PEPFAR	United States President's Emergency Plan for AIDS Relief
PIH	Partners in Health
PNLS	Programme National de Lutte contre les IST/VIH/Sida (National AIDS Control Program)
SEFIS	Société d'Etudes et de Formation en Information Stratégique
SD	standard deviation
UNAIDS	Joint United Nations Programme on HIV/AIDS
USAID	United States Agency for International Development

EXECUTIVE SUMMARY

The AIDS epidemic in Haiti has left many children in the country vulnerable to HIV, often without parents to care for them. Recognizing the enormous need for programs and services for orphans and vulnerable children (OVC), the United States President's Emergency Plan for AIDS Relief (PEPFAR) has partnered with the government of Haiti to strengthen services for OVC and their households. Since 2010, PEPFAR OVC support has included services such as HIV testing and linkages to care and treatment, potable water, immunizations, access to healthcare and psychosocial support, provision of school fees and supplies, dietary assessment and nutritional support, HIV prevention and life skills programs, and assistance with income generating activities for foster families and caregivers.

To better understand the effects of its programs on the well-being of OVC, PEPFAR launched a global reporting requirement in 2014 to monitor the outcomes of selected projects in Haiti and other countries where it provides support for OVC. The requirement involves the collection of data for nine outcome indicators, referred to as the PEPFAR monitoring, evaluation, and reporting (MER) OVC essential survey indicators (ESIs). In 2016, the United States Agency for International Development (USAID)/Haiti requested assistance from the USAID- and PEPFAR-funded MEASURE Evaluation project to conduct surveys to collect the required data for two of its ongoing OVC programs: the USAID Bien Et ak Santé Timoun (BEST) project and the Partners in Health (PIH) project, funded through the United States Centers for Disease Control and Prevention. This report presents the findings from the survey that MEASURE Evaluation, with its local research partner Société d'Etudes et de Formation en Information Stratégique (SEFIS), conducted for the BEST project in March 2018. Survey results for the PIH project are reported separately.

Using a two-stage cluster design, the MEASURE Evaluation survey team selected a sample of 480 beneficiary households and conducted survey interviews with 385 caregivers about themselves, their households, and the 1,098 children under age 18 who were under their care. The survey tools and method followed guidance previously developed by for PEPFAR by MEASURE Evaluation for collection of the OVC ESIs. The survey collected data for the nine ESIs and six supplemental indicators of interest to the PEPFAR Haiti OVC team and BEST project managers.

Results for the OVC ESIs, presented below, provided a snapshot of the well-being of children and households served by the BEST project in 2018. The findings showed a high prevalence of children, particularly young children, who were ill, most commonly with fever, flu, and cough; low prevalence of birth certificates; high rates of school enrollment but rather low rates of regular school attendance (including preschool); widespread acceptance of harsh physical punishment of children; and limited household economic resilience. Caregivers reported knowledge of the HIV status of three-quarters of the children under their care. Among the children whose caregivers reported knowing their status, 18.1 percent were reported to be living with HIV. Among those living with HIV, nearly all were reported to be receiving ART and to have taken ARV drugs within the past day. Few young children were found to be acutely undernourished; activities that promote early childhood development were reported to be commonly practiced. Additional indicators captured in the survey showed the limited ability of households to cover expected household expenses and lack of support for gender-equitable norms among caregivers.

Based on these findings, recommendations for strengthening programs for orphans and vulnerable children in Haiti include to: raise caregivers' awareness about childhood illness, prevention, and services, and provide

support to help keep children healthy; continue efforts to assess children's HIV risk and ensure that those at risk are tested for HIV; continue to support access to ART and adherence; address HIV stigma and discrimination; increase enrollment of young children in preschool; help children obtain birth certificates; address barriers to school attendance; change caregiver norms regarding acceptance of harsh physical punishment of children and gender inequalities; and intensify efforts to build the economic resilience of OVC households.

Summary of PEPFAR MER OVC essential survey indicator results for the BEST project, Haiti

Reference name	Indicator	n	N	%	95% Confidence interval	
					LL	UL
Health						
OVC_SICK	Percentage of children (aged 0–17 years) too sick to participate in daily activities	271	1,095	24.7	21.8	28.0
OVC_HIVST	Percentage of children (aged 0–17 years) whose primary caregiver knows the child's HIV status	832	1,098	75.8	70.1	80.6
Nutrition						
OVC_NUT	Percentage of children (aged 6–59 months) who are undernourished	4	154	2.6	1.0	6.8
Early childhood development						
OVC_STIM	Percentage of children <5 years of age who recently engaged in stimulating activities with any household member over 15 years of age	276	288	95.8	90.7	98.2
Legal rights						
OVC_BCERT	Percentage of children (aged 0–17 years) who have a birth certificate [among caregivers interviewed at the household]	421	793	53.1	46.6	59.5
Education						
OVC_SCHATT	Percentage of children (aged 5–17 years) regularly attending school	538	810	66.4	62.2	70.4
OVC_PRGS	Percentage of children (aged 5–17 years) who progressed in school during the last year	618	704	87.8	84.7	90.3
Attitudes about child punishment						
OVC_CP	Percentage of caregivers who agree that harsh physical punishment is an appropriate means of discipline or control in the home or at school	223	384	58.1	50.8	65.1
Household economic well-being and resilience						
OVC_MONEY	Percentage of households able to access money to pay for unexpected household expenses	84	248	33.9	26.5	42.2

LL, lower limit; UL, upper limit

BACKGROUND

Orphans and Vulnerable Children in Haiti

Haiti is home to more people living with HIV than any other country in the Caribbean region ((Joint United Nations Programme on HIV/AIDS [UNAIDS], 2017b). Among the estimated 150,000 Haitian adults and children living with HIV, 7,600 are younger than 15 years of age (UNAIDS, 2017a). Much progress continues to be made in delivering life-saving antiretroviral treatment (ART) to adults and children. In 2016, 56 percent of adults and 49 percent of children aged 0–14 years living with HIV were receiving ART (UNAIDS, 2017b). However, despite these significant gains in the fight against HIV/AIDS, the many Haitian children infected and affected by HIV/AIDS face numerous challenges.

Haiti's Ministry of Public Health and Population has recognized the need to act to improve the health and well-being of OVC. The national 10-year health plan, *Plan Directeur de Santé 2012–2022*, defines comprehensive support to OVC and their families as a key strategy to improve the state of children's health in Haiti (Ministère de la Santé Publique et de la Population [MSPP], 2013). Additionally, Haiti's national HIV/AIDS strategy aims to reduce the proportion of HIV-positive infants born to mothers living with HIV to less than 2 percent by 2018 and promotes psychosocial care and priority integration of people living with HIV/AIDS and affected families living with difficult challenges in social and public assistance programs supported by the Haitian government and its national and international partners (Programme National de Lutte contre les IST/VIH/Sida [PNLS], 2016).

As a key international partner, PEPFAR has supported the Haitian government in its fight against HIV/AIDS since 2004. PEPFAR remains the largest contributor to OVC activities in Haiti, working closely with PNLS and Institut du Bien-Être Social et de la Recherche, the government entity responsible for OVC under the Ministry of Social Affairs. Since 2010, PEPFAR OVC support has included services such as HIV testing, linkages to HIV care and treatment, potable water, immunizations, access to healthcare and psychosocial support, provision of school fees and supplies, dietary assessments and nutritional support, HIV prevention and life skills programs, and assistance with income generating activities for foster families and caregivers (PEPFAR, May 2017).

OVC Outcomes Monitoring

Globally, PEPFAR has invested considerable resources in OVC programs, but has not undertaken a systematic or large-scale study of the well-being of beneficiary OVC and their households (Sherr & Zoll, 2011). To fill this gap, in 2014 PEPFAR introduced a new global reporting requirement for monitoring the outcomes of its OVC programs, named the monitoring, evaluation, and reporting (MER) OVC essential survey indicators (ESIs). The ESIs are intended to measure and track child and household well-being using standard indicators and methods across projects and countries. They reflect internationally accepted developmental milestones and ways that OVC programs gain from and contribute to broader HIV and child protection responses (MEASURE Evaluation, 2014). They were designed to supplement routine PEPFAR monitoring (which primarily tracks project inputs and outputs) and project evaluations. To date, the MER OVC ESIs have been collected in more than 15 countries.

In 2017, the PEPFAR Haiti OVC team requested the assistance of the USAID-funded project, MEASURE Evaluation, to collect data for the MER OVC ESIs for two of its OVC projects:

- 1) “Bien Et ak Santé Timoun (BEST)” project, implemented by the Caris Foundation and funded through USAID
- 2) “Reinforcing HIV Clinical Services within a Network of Public Health Institutions in the Central Plateau and the Lower Artibonite of Haiti under the President’s Emergency Plan for AIDS Relief (PEPFAR),” implemented by PIH and funded through the U.S. Centers for Disease Control and Prevention

MEASURE Evaluation, in partnership with its subcontractor SEFIS, conducted two household surveys—one for each project—to collect data for the OVC ESIs. The methodology used for both surveys was similar and followed established guidance (MEASURE Evaluation, 2014). This report presents the MER OVC ESI survey that MEASURE Evaluation conducted for the BEST project. The survey for the PIH project is presented in a separate report, available here: <https://www.measureevaluation.org/resources/publications/tr-18-288>.

Intended Use of This Report

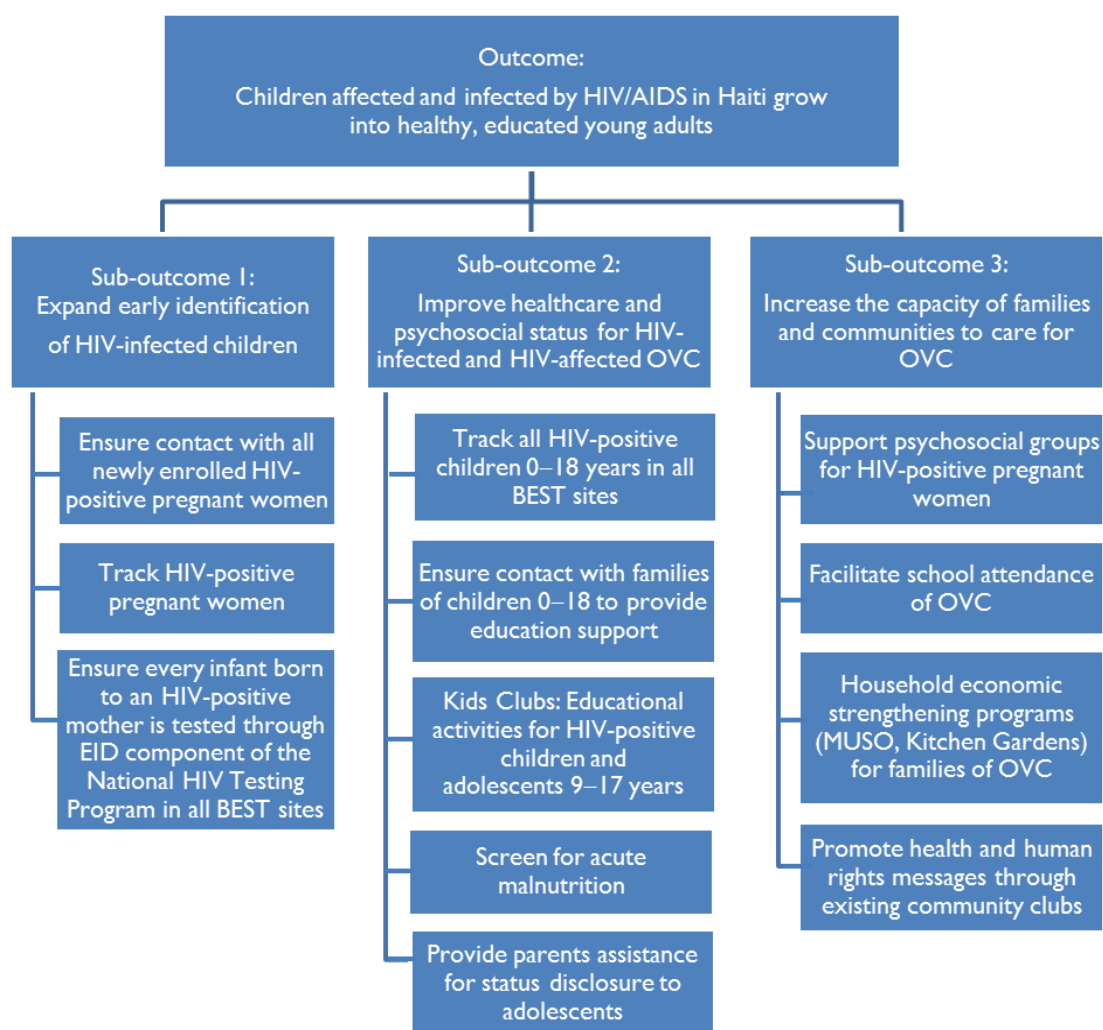
This report describes the methods used to conduct the BEST MER OVC ESI survey and presents results for the ESIs in accordance with MER guidance. A brief discussion of the findings is also provided. This information is intended to help BEST project managers better understand the current well-being of its beneficiaries. In addition, the information will help support the project, the PEPFAR Haiti OVC team, and other program decision makers and stakeholders, including those from the government of Haiti, to take evidence-informed actions for improving OVC program strategy, resource allocation, and implementation, with the ultimate goal of improving the well-being of the children and households they serve. Findings presented in this report also contribute to a global PEPFAR-wide evidence base on the effectiveness of PEPFAR OVC programming.

METHODS

Survey Context: BEST OVC Program

The BEST project, which began implementation in 2014, supports early infant diagnosis services that include tracking and follow-up of HIV-positive children at more than 130 hospitals throughout Haiti's 10 departments. The overall objective of the project is to help children in Haiti affected and infected by HIV/AIDS grow into healthy, educated young adults. The project's results framework is provided in Figure 1.

Figure 1. BEST results framework



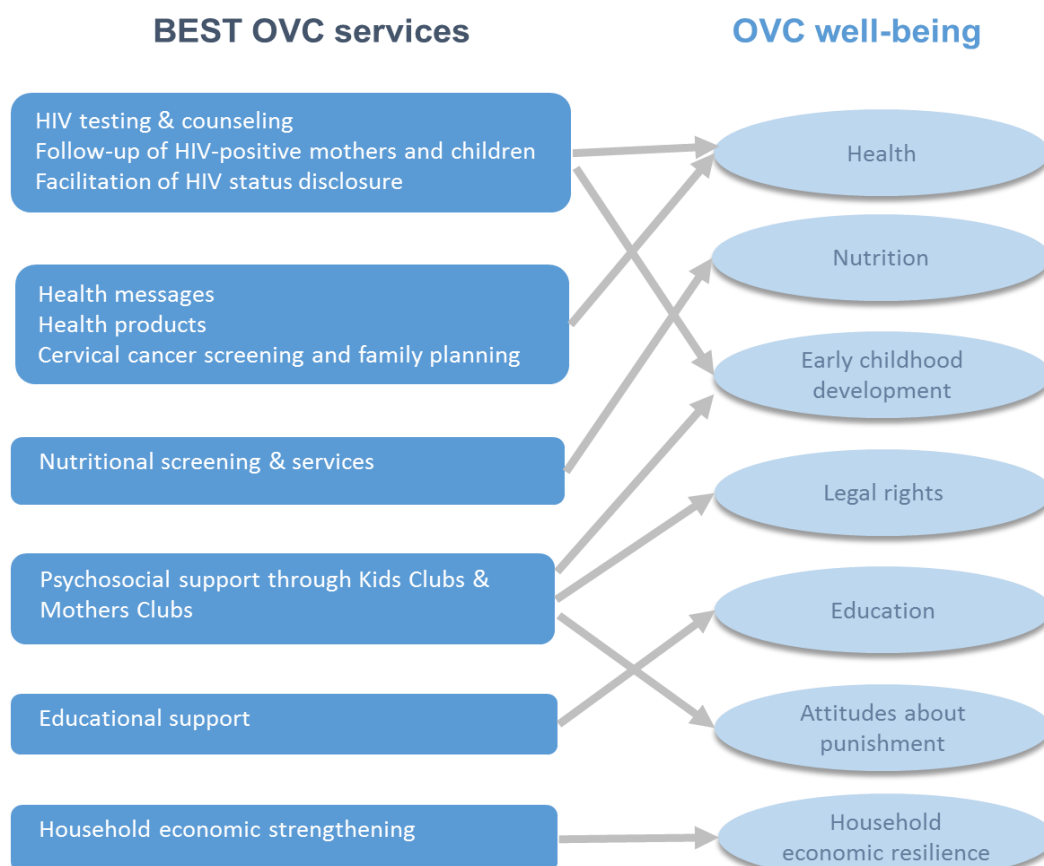
BEST supports *comprehensive* OVC services at 73 hospitals through psychosocial support groups for HIV-positive children and young adults, and families of women enrolled in the prevention of mother-to-child transmission program—Kids Clubs (of which there are three types: ages 9–12, ages 13–17, and ages 18+) and Mothers Clubs. Household participation in either a Kids or Mothers Club ranges from less than 10 to more than 400 per facility. These clubs help to ensure that OVC and their mothers stay in contact with the hospital and serve as a conduit for delivery of other services, which include the following: health messages; health

products such as water treatment products, hygiene kits, de-worming medicines, and condoms; educational support through payment of school fees for children 6 to 18 years of age; screening of children between 6 and 59 months for acute malnutrition and Medika Mamba treatment and follow-up for malnourished children; and household economic strengthening activities, such as “mutuelle de solidarité”/MUSO or cash savings groups, and kitchen gardens. BEST also supports groups that bring together adolescents and their parents to help foster healthy relationships by facilitating HIV status disclosure to teens who do not have information about their condition. In addition, BEST has started a cervical cancer screening program for HIV-positive women from 30 to 49 years of age. When women attend their screenings, they also have the option of receiving family planning consultation and services.

Conceptual Framework

The PEPFAR MER OVC ESIs measure seven dimensions of OVC and caregiver (or household) well-being. Figure 2 shows how the BEST OVC program maps to these dimensions. Many of the services also contribute indirectly to the various dimensions of well-being, which themselves are interrelated. For example, child support groups may also contribute to education and health outcomes, and household economic strengthening support to families may also contribute to child health, nutrition, and education outcomes in addition to its primary contribution to household economic resilience.

Figure 2. Conceptual framework mapping BEST OVC services to MER OVC ESI well-being dimensions



Survey Indicators and Questionnaire

The survey interview collected data for the nine OVC MER ESIs. The PEPFAR Haiti OVC team also wanted to collect supplemental data to elaborate on the ESIs or inform their interpretation. Six supplemental indicators were added to the survey, for a total of 15 indicators. These indicators, their associated PEPFAR MER reference names, and the rationale for their inclusion in the survey are presented in Table 1. They are categorized according to the dimensions of OVC well-being they represent.

Table 1. PEPFAR OVC MER Essential Survey Indicators and Haiti supplemental indicators

Indicator name	Indicator	Rationale for inclusion
Health		
OVC_SICK	Percent of children (aged 0–17 years) too sick to participate in daily activities	PEPFAR OVC programs support critical linkages to health services and treatment, aiming to reduce the number of sick children and improve functional well-being.
OVC_HT1*	Types of sickness among children too sick to participate in daily activities in the past two weeks	Knowing the reason for child illness will help OVC programs better understand beneficiary needs and target services.
OVC_HT2*	Percentage of children too sick to participate in daily activities in the past two weeks who went to a health facility for that sickness	This indicator measures the extent to which project beneficiaries are accessing services from a health facility. The use of health services for many illnesses is essential for the health and well-being of the child.
OVC_HIVST	Percent of children (aged 0–17 years) whose primary caregiver knows the child's HIV status	If a child's HIV status is unknown to her/his caregiver, the child will not have access to life-saving care, treatment, and support interventions.
OVC_HT3*	Percentage of children living with HIV who are taking ARV drugs	This indicator provides a measure of the well-being of children living with HIV. Promotion of HIV testing and linking children living with HIV to treatment services is a current PEPFAR programming priority.
OVC_HT4*	Percentage of children accessing antiretroviral treatment who took their drugs within the last day	This indicator provides a measure of adherence to ARV drugs. Drug adherence is critical in order to maintain viral suppression and to promote the health of the child.
Nutrition		
OVC_NUT	Percent of children (aged 6–59 months) who are undernourished <i>For this indicator, the interviewer obtained MUAC measurement for children ages 6–59 months. It is the only indicator whose</i>	Nutrition is a critical factor in reducing infant mortality and builds a strong foundation for a child's health, growth, and development.

Indicator name	Indicator	Rationale for inclusion
	<i>measurement required direct interaction with a child.</i>	
Legal rights and social protection		
OVC_BCERT	Percent of children (aged 0–17 years) who have a birth certificate	Ensuring children's access to basic legal rights, such as birth certificates, enables them to access other essential services and opportunities, including health, education, legal services, and legal employment, when they grow older.
Education		
OVC_SCHATT	Percent of children (aged 5–17 years) regularly attending school	In addition to being important in its own right, children's attendance at school has positive impacts on HIV prevention.
OVC_PRGS	Percent of children (aged 5–17 years) who progressed in school during the last year	Studies in many countries have linked higher education levels with increased AIDS awareness and knowledge, higher rates of contraceptive use, and greater communication regarding HIV prevention among partners.
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	Early childhood cognitive, social, and physical stimulation is essential for promotion of long-term learning, growth, and health.
Attitudes about child punishment		
OVC_CP	Percent of caregivers who agree that harsh physical punishment is an appropriate means of discipline or control in the home or school	Reducing harsh physical discipline, violence, and abuse against children is a PEPFAR priority. Perceptions of physical discipline have been linked to actual use of physical discipline against children.
Household economic well-being and resilience		
OVC_HT5*	Percentage of households able to access money to pay for <i>expected</i> household expenses	This indicator is routinely collected by the implementing partners that provide OVC services. Collecting data for this indicator through the OVC MER survey will allow for data triangulation/validation and provide another measure of household economic well-being.
OVC_MONEY	Percent of households able to access money to pay for <i>unexpected</i> household expenses	The key goal of household economic strengthening programs is to improve a household's resiliency to economic shocks, such as unexpected household expenses. Child well-being is assumed to be

Indicator name	Indicator	Rationale for inclusion
		affected by the household's resiliency to economic shocks.
Gender norms		
OVC_HT6*	Gender Equitable Men (GEM) Scale: violence and daily chores domains (for caregivers)	This indicator provides a measure of attitudes toward gender equitable norms, which have been found to be associated with household decision making, violence, and risk behaviors, and may be helpful to program managers in the design of care plans for OVC households. The GEM Scale has been validated in a number of countries among both women and men (Pulerwitz and Barker, 2008).

*Supplemental indicator for the Haiti BEST survey.

The PEPFAR MER OVC ESIs were vetted and selected in 2014 by global PEPFAR OVC program and strategic information technical leaders. They applied a number of criteria in their selection, including relevancy among the various countries where PEPFAR provides OVC program support and representation of factors amenable to change over a two-year period. All selection criteria and the indicator reference sheets that define the ESIs can be found in the MEASURE Evaluation guidance developed for the surveys (MEASURE Evaluation, 2014).

Data collectors conducted interviews with caregivers using a standard 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 included three components: (1) caregiver, (2) child ages 0–4 years, and (3) child ages 5–17 years. Data collectors administered the caregiver component in all sample households and, depending on the number and ages of the children in the household, one or both of the child components to the caregiver. The survey team administered child components for each child in the household under the care of the caregiver. The team made only minor modifications to the standard questionnaire to adapt it to the Haitian context. Specifically, questions were added to measure the six supplemental indicators and questions regarding receipt of OVC program services tailored to the BEST OVC program. Additionally, the questionnaire was translated into Creole. Minor changes were made to the translations following pilot testing to enhance the clarity of the translations. The English version of the questionnaire is provided in the Appendix.

Ethics Review and Compliance for the Surveys

All study activities adhered strictly to U.S. and international research ethics guidelines, including 45CFR46 and the Council for International Organizations of Medical Sciences International Ethical Guidelines for Health-related Research Involving Humans. The team sought institutional review board (IRB) review of the study protocol and received approval on February 7, 2018 from the Comité National de Bioéthique in Haiti and Health Media Lab IRB in the United States.

Survey Design

The survey team employed a two-stage, 40x12 design, producing a sample size of 480 households. This design was chosen to achieve an approximate 6.5 percent margin of error for caregiver indicator estimates and 4.5 percent for child indicator estimates. The sampling frame comprised the list of all OVC households actively served by the BEST project. An OVC household was defined as one in which a woman had attended at least one Mothers Club meeting or a child had participated in at least one Kids Club meeting (for the ages 9–12 and 13–17 groups). Only active households were included (i.e., the club participant had attended at least one meeting in the six months before selection of the sample in January 2018). This beneficiary list, provided by the project, included 4,645 households served from the 73 health facilities that had a Mothers Club or Kids Club for children ages 9–17. The survey team worked with BEST OVC program managers to correct missing information and data inconsistencies in the list before sample selection.

At the first sampling stage, the survey team randomly selected 40 health facilities (i.e., clusters) from among the 73 eligible facilities, proportionate to the number of households served from the health facility. At the second stage, the team randomly selected 12 households from within each of the clusters. At the time of field data collection, however, some of the selected households could not be confirmed as active program participants by BEST staff at the facilities. In these instances, the study team randomly selected additional households to meet the targeted number of households for that cluster.

The team conducted survey interviews with the primary caregivers of the children residing in the selected households. Female and male caregivers of all ages were eligible for the survey. The team asked caregivers questions about themselves, the household, and the children under their care. All children ages zero through 17 (at their last birthday) who slept within the household on the night before the interview were considered eligible for the survey, including both children actively registered as beneficiaries of the BEST OVC program and those who were not.

Field Data Collection

Two teams carried out survey data collection, each of which comprised a team lead and four data collectors (two pairs). All team members were experienced in household survey data collection and had completed a six-day training course led by the study team before deployment. Data collectors conducted the caregiver interviews with Samsung Android tablets preprogrammed with the questionnaires using Kobo Collect (Harvard Humanitarian Initiative, n.d.). As part of their training, the data collection teams conducted an external pilot test of the entire data collection process by using the tablets among a small group of project beneficiaries not selected into the survey sample.

The teams conducted field data collection between March 9 and April 6, 2018. They informed health facilities in advance of the scheduled data collection period. At the start of that period, the survey field manager or team lead met with key personnel at the health facility to present the survey objectives and methods, review and finalize the list of sampled households, and map the household locations. For some program beneficiaries, BEST delivers services only at the health facility; program staff do not visit the households because of concerns about stigmatization. For such households, the team lead worked with program staff to schedule interviews at the facility or a nearby convenient location, such as a school or church. For interviews conducted at the household, a field agent from the health facility escorted the data collectors there, introduced them to the caregiver, and then left.

Upon meeting the caregiver, the data collector administered the informed consent process, conveying the study purpose, emphasizing the voluntary nature of her/his participation, and explaining potential risks and benefits. Caregivers were provided with the opportunity to ask questions. If the caregiver verbally consented, written consent was obtained. In the event that the caregiver was a minor (i.e., under the age of 18 years), the data collector first sought consent from the minor's guardian or parent to interview the minor and then sought the minor's assent for the interview.

After obtaining consent, the data collector began the interview using the "caregiver" component. Following completion of that component, the caregiver was asked to list the names and ages of all eligible children under age 18 in the household; the data collector then administered the relevant child components of the questionnaire to the caregiver, completing one component per eligible child.

The data collectors reviewed the questionnaire before leaving the interview location to ensure all questions were asked and answers were appropriately recorded. Team leads reviewed the completed questionnaires daily and checked for remaining errors, such as incorrectly filled out forms, missing data, and inconsistencies. On a daily basis, the survey field manager monitored data collection reports, data collectors transmitted verified data to the Kobo Collect server, and the software developer retrieved the data and ran additional data checks. The field team was contacted when questions with the data arose or clarification was needed, and actions were taken to address identified problems.

Data Analysis

Once the teams completed data collection, additional validity and consistency checks were run on the full data file and data cleaning was performed. Master files were created in MS Excel; analysis files were created in SPSS with variable labels, value labels, and other metadata. Data analysis was performed using SPSS 25 (IBM, 2017). The ESIs were derived according to PEPFAR specifications (MEASURE Evaluation, 2014). Confidence intervals (CIs, 95%) for the indicator estimates were calculated incorporating the cluster sample design. Differences between subgroups were tested using an adjusted F statistic—a variant of the second-order Rao-Scott adjusted chi-square statistic. Statistical significance was based on the adjusted F (likelihood ratio) and its degrees of freedom (IBM, n.d.). Differences significant at the $p < 0.05$ level were considered statistically significant.

RESULTS

Response Rates

Among the 480 households in the original sample selected from the BEST master list, 75 (14.2%) were replaced because of eligibility misclassification as reported by BEST program staff at the health facilities. As noted above, these households were replaced through random selection of additional households to yield a sample of 480 households regarded as eligible by the facility program staff. The field team completed 385 caregiver interviews from among this sample of 480 households, for a household response rate of 80.2 percent. The response rate and reasons for nonresponse among the 95 households for which interviews were not completed are provided in Table 2.

Table 2. Household response rates

Category	Number
1. Households served by the BEST OVC program based on the project beneficiary listing	4,645
2. Households sampled from the project listing	480
3. Sampled households (or club members) classified by the site program coordinators as ineligible: no children under 18 in the household, lost to follow-up (i.e., transferred to another facility or caregiver/child recently deceased and whereabouts of children in the household unknown), or beneficiary had duplicate IDs*	75
Households in the original sample that were replaced	75/480 (14.2%)
4. Households where an interview was attempted	480
5. Sample households where an interview was not conducted (household nonresponse), by reason:	95
• Caregiver/household had moved out of the area	24
• Household location unknown to program staff/could not locate	25
• Caregiver refused an interview	15
• Caregiver away from home during data collection period	20
• Unable to locate caregiver after three attempts	5
• Household inaccessible	4
• Ineligible, caregiver reportedly not responsible for any child aged 0–17 years	1
• Unable to complete interview	1
6. Households where an interview was successfully completed	385
Survey household response rate	385/480 (80.2%)

* These households were replaced by additional randomly selected households from within each cluster until the target sample size for the cluster was achieved.

Table 3 displays the numbers of interviews conducted at the 385 households. All child components were completed among eligible children in the households (N=1,098).

Table 3. Questionnaire components completed

Sample information	Number
Caregiver components completed	385
Eligible children in the completed households (listed by the caregivers)	1,098
Children ages 0–4 years components completed	288
Children ages 5–17 years components completed	810
Total child components completed	1,098

Background Characteristics of the Respondents

Caregivers

Among the 385 successfully interviewed caregivers, 363 (94.3%) were female. About two-thirds of female and male caregivers were between the ages 31 and 50 years, with a mean age of 37.7 years and standard deviation (SD) of 13.83. The youngest caregiver was age 18 and the oldest age 88. Male caregivers were older than female caregivers (mean ages of 44.5 and 37.3, respectively). The difference between females and males among the age groups was statistically significant ($p=0.024$). More than one-third (36.4%) of male caregivers were age 51 and older, whereas only 9.1% of female caregivers were in this oldest age group. About one-quarter (26.2%) of caregivers reported they had never attended school. Male caregivers reported higher school attendance than female caregivers, and at higher levels ($p=0.013$). Primary school was the highest level attended by roughly half of both female and male caregivers (57.5% and 45.5%, respectively). The largest gap between female and male caregivers was among those who had attended secondary school or higher (15.6% among females and 40.9% among males). Details of these caregiver characteristics are given in Table 4.

Table 4. Characteristics of caregivers in the survey

Age (years)	Female caregivers*		Male caregivers*		All caregivers	
	N	%	N	%	N	%
<18	0	0.0	0	0.0	0	0.0
18–30	89	24.5	3	13.6	92	23.9
31–50	241	66.4	11	50.0	252	65.5
51+	33	9.1	8	36.4	41	10.6
All ages	363	100.0	22	100.0	385	100.0
Education						
Never attended school	97	26.9	3	13.6	100	26.2
Highest level attended is primary	207	57.5	10	45.5	217	56.8
Highest level attended is secondary or higher	56	15.6	9	40.9	65	17.0
All education levels	360	100.0	22	100.0	382	100.0

*The difference in age between females and males is statistically significant at $p=0.024$.

The difference in education between females and males is statistically significant at $p=0.013$.

Caregiver Households

A little less than half (42.6%) of the households were located in an urban area. A higher percentage of male compared to female caregivers owned the house or dwelling in which they lived (68.2% and 39.4%, respectively, $p=0.020$). Most households (81.0%) had improved sources of drinking water; nearly half had an improved toilet (41.8%), electricity (45.5%), and a cement floor (51.9%). Only 17.4 percent of the houses/dwellings had a concrete roof. Although a higher percentage of male caregiver compared to female caregiver households had these amenities, the differences were not statistically significant. The results are summarized in Table 5.

Table 5. Characteristics of the surveyed households

Household characteristics	Female caregivers (N=363)		Male caregivers (N=22)		All caregivers (N=385)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Urban residence	153	42.1	11	50.0	164	42.6
House/dwelling is owned by the caregiver	143	39.4*	15	68.2*	158	41.0
Household has improved source of drinking water	293	80.7	19	86.4	312	81.0
Household has improved toilet	149	41.0	12	54.5	161	41.8
Household has electricity	164	45.2	11	50.0	175	45.5
Household has cement floor	188	51.2	12	54.5	200	51.9
Household has concrete roof	62	17.1	5	22.7	67	17.4

* The difference between females and males is statistically significant at $p=0.020$.

Children

A total of 1,098 children aged 0–17 years were listed by the caregivers among the 385 households where the field team conducted interviews, giving an average of 2.8 children per household/caregiver. Among the children, 46.9 percent (515) were female and 53.1 percent (583) were male. The age distributions were similar for both sexes (0- to 4-year-olds=26.2% of the sample; 5- to 9-year-olds=25.0%; 10- to 14-year-olds=31.1%; and 15- to 17-year-olds=17.7%). (See Table 6.)

Table 6. Characteristics of children in the survey

Child's age	Female		Male		All children	
	<i>n</i>	%	<i>N</i>	%	<i>N</i>	%
0–4 years	125	24.3	163	28.0	288	26.2
0–5 months	17	13.6	19	11.6	36	12.5
6–11 months	4	3.2	10	6.1	14	4.9
12–23 months	22	17.6	27	16.6	49	17.0
24–59 months	82	65.6	107	65.6	189	65.6
5–9 years	130	25.2	145	24.9	275	25.0
10–14 years	161	31.3	180	30.9	341	31.1
15–17 years	99	19.2	95	16.3	194	17.7
All ages	515	100.0	583	100.0	1,098	100.0

OVC Services Received

Only three caregivers reported that they or another household member had never participated in a Mothers Club or Kids Club at the hospital. Most female caregivers (85.6%) reported they had ever participated in a Mothers Club (51.5% Mothers Club only; 34.1% Mothers and Kids Club participation). Only one male caregiver reported only Mothers Club participation by a household member, but seven (31.9%) reported both Mothers Club and Kids Club participation. Among male caregiver households, the highest participation was in Kids Club only (54.5%), whereas among female caregiver households, the highest participation was in Mothers Club only. These caregiver sex differences in participation were statistically significant ($p < 0.001$). (See Table 7a.)

Table 7a. Caregivers' reports of household members' participation in BEST support clubs

Club participation***	Female caregivers		Male caregivers		All caregivers	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Mothers Clubs only	186	51.5	1	4.5	187	48.8
Kids Clubs only	51	14.1	12	54.5	63	16.4
Mothers Clubs and Kids Clubs	123	34.1	7	31.9	130	33.9
No Club participation	1	0.3	2	9.1	3	0.8
All households	361	100.0	22	100.0	383	100.0

***The difference between females and males in type of Club participation is statistically significant at $p < 0.001$.

Caregivers were also asked how long ago they began participating in the clubs. On average, caregivers who knew how long a mother or child had been participating reported they had participated for about three years (mean=34.1 months, SD=19.10). No difference was observed between female and male caregivers, although the range in length of participation showed greater variation among female than male caregiver reports (1–56 months among female caregivers; 18–48 months among male caregivers). (See Table 7b.)

Table 7b. Caregivers' reports of time since caregiver or child first participated in a club

Caregivers	Time (in months) of longest participating household member				
	<i>n</i>	Mean	Median	SD	Range
Female caregivers	262	34.2	36.0	19.54	1–56
Male caregivers	10	33.4	36.0	6.10	18–48
All caregivers	272	34.1	36.0	19.10	1–56

Female and male caregivers differed in their reports of who in the household had recently received services (i.e., within the past six months) from the BEST project ($p < 0.001$) (see Table 7c). Among female caregivers, the majority (73.3%) reported that both caregivers and children had recently received services, while others reported only children (16.2%) or only caregivers (9.7%) had recently received services. In contrast, half of male caregivers reported both children and caregiver had received recent services, while about a third (36.4%) reported only children had received services. Only one caregiver reported that only he (and no children) had recently received services. A total of five caregivers reported no one in the household had recently received

services from the BEST project. Caregivers who reported receipt of any recent service were asked about the types of services they had received. The three most commonly reported services were receipt of water treatment products (88.6%), psychosocial support/counseling (79.8%), and household economic strengthening (76.1%). Help in getting a child's birth certificate (4.8%), help in addressing sexual violence (6.1%), and referral to family planning services (8.2%) were least likely to be reported. Differences between female and male caregivers in receipt of services were found for household economic strengthening (78.4% and 35.0%, respectively; $p=0.003$), support for disclosing HIV status (57.6% and 40.0%, respectively; $p=0.039$), hygiene kits (45.2% and 85.0%; $p=0.001$), and de-worming medicines (43.8% and 25.0%, respectively; $p=0.047$). No male caregivers reported provision of condoms, referral to child protection services, referral for ART, and referral for gender-based violence (GBV) services, whereas 40.7, 34.3, 25.6, and 15.2 percent of female caregivers, respectively, reported receiving these services.

Table 7c. Caregivers' reports of type of services received from BEST in the past six months

Recipient of services***	Female caregivers		Male caregivers		All caregivers	
	<i>n</i>	%	<i>N</i>	%	<i>n</i>	%
Caregiver only	58	16.2	1	4.5	59	15.5
Children only	35	9.7	8	36.4	43	11.3
Caregiver and children	263	73.3	11	50.0	274	71.9
Did not receive any service in past six months	3	0.8	2	9.1	5	1.3
All households	359	100.0	22	100.0	381	100.0
*** The difference between female and male caregivers in recipient of services was statistically significant at $p<0.001$.						
Types of services received	Female caregivers (N=356)		Male caregivers (N=20)		All caregivers (N=376)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Water treatment products	318	89.3	15	75.0	333	88.6
Psychosocial support/counseling	284	79.8	16	80.0	300	79.8
Household economic strengthening	279	78.4**	7	35.0**	286	76.1
Support for disclosing HIV status	205	57.6*	9	40.0*	213	56.6
Payment of school fees	192	3.9	19	95.0	211	56.1
Hygiene kits	161	45.2***	17	85.0***	178	47.3
De-worming medicines	156	43.8*	5	25.0*	161	42.8
Provision of condoms	145	40.7	0	0.0	145	38.6
Referral to child protection services	122	34.3	0	0.0	122	32.4
Referral to HIV testing and counseling	106	29.8	5	25.0	111	29.5
Referral for ART	91	25.6	0	0.0	91	24.2
Referral of child for immunizations	85	23.9	1	5.0	86	22.9

Referral to health services for a child	72	20.2	1	5.0	73	19.4
Support for housing or shelter	65	18.3	4	20.0	69	18.4
Support for school supplies and materials	55	15.4	6	30.0	61	16.2
Referral to cervical cancer screening	52	14.6	3	15.0	55	14.6
Referral to GBV services	54	15.2	0	0.0	54	14.4
HIV prevention education	49	13.8	1	5.0	50	13.3
Referral to family planning services	30	8.4	1	5.0	31	8.2
Help in addressing sexual violence	22	6.2	1	5.0	23	6.1
Help in getting child's birth certificate	17	4.8	1	50.0	18	4.8

*, **, *** The difference between female and male caregivers in reports of type of service received was statistically significant at $p < 0.05$, 0.01, and 0.001, respectively.

Caregivers were also asked about participation in or receipt of services from the BEST project for each child under their care (see Table 8). Approximately half (52.0%) of all children were reported to have ever participated and received services; a little less than half (41.0%) were reported to have participated or received services within the past six months. Observed sex and age differences were not statistically significant.

Table 8. Caregivers' reports of children's participation in or receipt of BEST services

Receipt of services	All female children			All male children			All children		
	<i>n</i>	<i>N</i>	%	<i>n</i>	<i>N</i>	%	<i>n</i>	<i>N</i>	%
Ever participated in activities or received services	256	515	49.7	315	583	54.0	571	1,098	52.0
Received services within the past six months	202	513	39.4	247	583	42.4	449	1,096	41.0
Receipt of services	Female children ages 0–4 years			Male children ages 0–4 years			All children ages 0–4 years		
	<i>N</i>	<i>N</i>	%	<i>n</i>	<i>N</i>	%	<i>n</i>	<i>N</i>	%
Ever participated in activities or received services	72	125	57.6	91	163	55.8	163	288	56.6
Participated or received services within the past six months	52	125	41.6	68	163	41.7	120	288	41.7
Receipt of services	Female children ages 5–17 years			Male children ages 5–17 years			All children ages 5–17 years		
	<i>N</i>	<i>N</i>	%	<i>n</i>	<i>N</i>	%	<i>n</i>	<i>N</i>	%
Ever participated in activities or received services	184	390	47.2	224	420	53.3	408	810	50.4
Participated or received services within the past six months	150	388	38.7	179	420	42.6	329	808	40.7

PEPFAR MER OVC Essential Survey Indicators

Results for the ESIs were disaggregated by sex and age following PEPFAR MER requirements. For each indicator, the numerator (*n*), denominator (*N*), indicator estimate (%), and 95% confidence intervals (the lower and upper limit, LL/UL) are provided in table format. Findings are organized by the dimensions of OVC well-being that were measured.

Health

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

Caregivers reported that about one in four (24.7%) children under their care were too sick to participate in daily activities at some point within the two weeks before the survey (see Table 9). Reports of sickness among the youngest age group (42.4%) were at least double that of any of the other age groups ($p < 0.001$). No differences between female and male children were found.

Table 9. Children too sick to participate in daily activities

Child's age (years)***	All children				
	<i>n</i>	<i>N</i>	%	95% CI	
				LL	UL
0–4	122	288	42.4	35.5	49.5
5–9	58	275	21.1	17.0	38.5
10–14	53	340	15.5	12.2	19.5
15–17	38	192	19.6	14.1	26.5
All ages	271	1,095	24.7	21.8	28.0

Child's age (years)	Female children					Male children				
	<i>n</i>	<i>N</i>	%	95% CI		<i>n</i>	<i>N</i>	%	95% CI	
				LL	UL				LL	UL
0–4	55	125	44.0	35.2	53.2	67	163	41.1	32.0	50.8
5–9	25	130	19.2	13.8	26.2	33	145	22.8	17.0	29.8
10–14	30	161	18.6	13.1	25.9	23	179	12.8	9.4	17.4
15–17	19	94	19.4	12.5	28.8	19	94	20.2	12.8	30.3
All ages	129	514	25.1	21.1	29.6	142	581	24.4	20.1	29.3

*** The difference among age groups is statistically significant at $p < 0.001$.

OVC_HT1: Types of sickness among children too sick to participate in daily activities in the past two weeks

Table 10a provides information on the types of sickness the children experienced, as reported by the caregivers. Among those who were too sick to participate in daily activities in the past two weeks, fever (66.4%), flu

(61.3%), and cough (45.8%) were the most commonly reported sicknesses, whereas malaria (1.1 %) and injuries (9.2%) were the least likely to be reported. A higher percentage of male compared to female children were reported to have experienced diarrhea (23.9% and 14.0%, respectively; $p=0.016$). No other sex differences were statistically significant.

Table 10a. Children too sick to participate in daily activities in the past two weeks, by type of sickness

Type of sickness	Both sexes				
	n	N	%	95% CI	
				LL	UL
Fever	180	271	66.4	58.4	73.6
Diarrhea	52	271	19.2	15.1	24.1
Cough	124	271	45.8	35.7	56.1
Malaria	3	271	1.1	0.2	5.0
Flu	166	271	61.3	53.0	68.9
Injuries	25	271	9.2	6.1	13.7
Other	120	271	44.3	36.4	52.4

Type of sickness	Female children					Male children				
	n	N	%	95% CI		N	N	%	95% CI	
				LL	UL				LL	UL
Fever	85	129	65.9	55.5	57.0	95	142	66.9	57.0	75.5
Diarrhea	18	129	14.0*	9.5	20.1	34	142	23.9*	18.2	30.8
Cough	57	129	44.2	31.2	58.0	67	142	47.2	36.7	58.0
Malaria	3	129	2.3	0.5	10.1	0	142	0.0	--	--
Flu	73	129	56.6	43.4	68.9	93	142	65.5	58.3	72.1
Injuries	10	129	7.8	3.9	14.8	15	142	10.6	6.4	16.8
Other	60	129	46.5	36.5	56.8	60	142	42.3	32.9	52.3

* The difference between female and male children is statistically significant at $p=0.016$.

OVC_HT2: Percent of children too sick to participate in daily activities in the past two weeks who went to a health facility for that sickness

When caregivers were asked how they responded to a child's recent illness, they reported that more than half (55.0%) were seen at a health facility. Children ages 0–4 years were the most likely among the age groups to be seen at a health facility; differences among the age groups approached statistical significance ($p=0.065$).

Table 10b. Sick children who went to a health facility

Child's age (years)	Both sexes				
	n	N	%	95% CI	
				LL	UL
0–4	79	122	64.8	56.8	71.9
5–9	28	58	48.3	35.1	61.7
10–14	24	29	45.3	28.4	63.3
15–17	18	38	47.4	31.8	63.4
All ages	149	271	55.0	48.5	61.3

Child's age (years)	Female children					Male children				
	n	N	%	95% CI		n	N	%	95% CI	
				LL	UL				LL	UL
0–4	39	55	70.9	59.6	80.1	40	67	59.7	45.8	72.2
5–9	12	25	48.0	29.5	67.1	16	33	48.5	31.4	65.9
10–14	13	30	43.3	24.1	64.8	11	23	47.8	24.0	72.7
15–17	10	19	52.6	32.5	72.0	8	19	42.1	20.3	67.5
All ages	74	129	57.4	48.2	66.0	75	142	52.8	42.5	62.9

OVC_HIVST: Percent of children (aged 0–17 years) whose primary caregiver knows the child's HIV status

Caregivers reported that they knew the HIV status of three-quarters (75.8%) of the children under their care in their households. Caregivers were least likely to know the status of children under age five compared to the other age groups, but the differences were not statistically significant. Caregivers' knowledge of HIV status did not differ between female and male children. These results are given in Table 11.

Table 11. Children whose primary caregiver knew their HIV status

Child's age (years)	All children				
	n	N	%	95% CI	
				LL	UL
0–4	201	288	69.8	64.0	75.0
5–9	213	275	77.5	69.6	83.7
10–14	264	341	77.4	68.5	84.4
15–17	154	194	79.4	71.7	85.4
All ages	832	1,098	75.8	70.1	80.6

Child's age (years)	Female children					Male children				
	n	N	%	95% CI		N	N	%	95% CI	
				LL	UL				LL	UL
0–4	89	125	71.2	61.2	79.5	112	163	68.7	61.8	74.9
5–9	100	130	76.9	66.7	84.7	113	145	77.9	67.3	85.8
10–14	128	161	79.5	70.2	86.5	136	180	75.6	65.1	83.7
15–17	82	99	82.8	71.5	90.3	72	95	75.8	66.9	82.9
All ages	399	515	77.5	70.7	83.0	433	583	74.3	68.6	79.2

OVC_HT3: Percent of children (aged 0–17 years) living with HIV who are taking ARV drugs

Among those children for whom the caregiver reported knowing her/his status, 18.1 percent were reported by the caregiver to be living with HIV. No sex differences were observed. (See Table 12a.)

Table 12a. Children living with HIV

	Children living with HIV (among children whose caregiver knows their HIV status)				
Sex of Child	n	N	%	95% CI	
				LL	UL
Females	71	399	17.8	12.4	24.8
Males	80	433	18.5	13.5	24.8
Both sexes	151	832	18.1	13.5	23.9

Among those children living with HIV, caregivers reported that nearly all (95.4%) were taking ARV drugs. No difference between female and male children was found. Similarly, little variation was observed among the age groups. (See Table 12b.)

Table 12b. Children living with HIV who are taking ARV drugs

Child's age (years)	Both sexes				
	n	N	%	95% CI	
				LL	UL
0–4	10	11	90.9	56.4	98.7
5–9	29	32	90.6	65.0	98.1
10–14	67	68	98.5	88.8	99.8
15–17	38	40	95.0	79.2	99.0
All ages	144	151	95.4	89.2	98.1

Child's age (years)	Female children					Male children				
	n	N	%	95% CI		n	N	%	95% CI	
				LL	UL				LL	UL
0–4	5	5	100.0	100.0	100.0	5	6	83.3	41.9	97.2
5–9	12	13	92.3	56.7	99.1	17	19	89.5	63.0	97.7
10–14	29	30	96.7	77.1	99.6	38	38	100.0	100.0	100.0
15–17	22	23	95.7	71.0	99.5	16	17	94.1	64.0	99.3
All ages	68	71	95.8	88.3	98.5	76	80	95.0	86.4	98.3

OVC_HT4: Percent of children accessing antiretroviral treatment who took their drugs within the last day

Relatively high levels of ARV adherence were reported (see Table 12c). Caregivers reported that 91.7 percent of all children reported to be accessing ART had taken their ARV drugs within the last day. No statistically significant sex and age differences were found.

Table 12c. Children on ART who took their ARV drugs within the last day

Child's age (years)	Both sexes				
	n	N	%	95% CI	
				LL	UL
0–4	10	10	100.0	100.0	100.0
5–9	23	29	79.3	54.5	92.4
10–14	63	67	94.0	84.1	97.9
15–17	36	38	94.7	82.0	98.6
All ages	132	144	91.7	83.4	96.0

Child's age (years)	Female children					Male children				
	n	N	%	95% CI		n	N	%	95% CI	
				LL	UL				LL	UL
0–4	5	5	100.0	100.0	100.0	5	5	100.0	100.0	100.0
5–9	10	12	83.3	34.7	97.9	13	17	76.5	48.0	92.0
10–14	28	29	96.6	79.1	99.5	35	38	92.1	74.6	97.9
15–17	22	22	100.0	100.0	100.0	14	16	87.5	64.8	96.4
All ages	65	68	95.6	73.8	99.4	67	76	88.2	76.0	94.6

Nutrition

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

According to the PEPFAR MER OVC ESI guidance, a child is considered acutely undernourished if the measurement of her/his left mid-upper arm circumference is below 12.5 cm. Among those ages 6–59 months for whom the measurement was taken, only four children (2.6%) met this criterion—three boys and one girl. They were all ages 12–59 months (see Table 13).

Table 13. Children ages 6–59 months who are undernourished

Child's age	Both sexes									
	n	N	%	95% CI						
				LL	UL					
6–11 months	0	11	0.0	0.0	0.0					
12–59 months	4	143	2.8	1.0	7.3					
6–59 months	4	154	2.6	1.0	6.8					
Child's age	Female children					Male children				
	n	N	%	95% CI		n	N	%	95% CI	
				LL	UL				LL	UL
6–11 months	0	4	0.0	--	--	0	7	0.0	--	--
12–59 months	1	62	1.6	0.2	10.7	3	81	3.7	1.2	11.2
6–59 months	1	66	1.5	0.2	10.1	3	88	3.4	1.1	10.4

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

For children under age 5, caregivers were asked if the child had engaged with the caregiver or anyone in the household ages 15 years or older in the past three days in the following activities: read or looked at a picture book; told stories; sang songs or lullabies; engaged in play; or named, counted, or drew things. As shown in Table 14, almost all children (95.8%) had engaged in at least one of these activities. Girls and boys were equally engaged (95.2% and 96.3%, respectively). The most frequently reported activities were playing (95.5%) and singing (71.5%). Just under half (42.4%) had been engaged in naming, counting, or drawing. Less than one-third of children had been engaged in reading or looking at picture books (26.0%) or storytelling (26.1%). Girls were more likely than boys to be engaged in naming, counting, or drawing (46.4% and 39.3%, respectively); reading or looking at picture books (28.8% and 23.9%, respectively); and storytelling (30.6% and 22.5%, respectively) but the differences between them were not statistically significant.

Table 14. Children <5 years of age who recently engaged in stimulating activities with any household member over 15 years of age

Activity	Both sexes				
	n	N	%	95% CI	
				LL	UL
Read or looked at picture books	75	288	26.0	18.7	35.0
Told stories	74	284	26.1	18.8	34.8
Sang songs or lullabies	206	288	71.5	62.1	79.4
Engaged in play	275	288	95.5	90.5	97.9
Named, counted, or drew things	122	288	42.4	32.7	52.7
One or more of these activities	276	288	95.8	90.7	98.2

Activity	Female children					Male children				
	n	N	%	95% CI		n	N	%	95% CI	
				LL	UL				LL	UL
Read or looked at picture books	36	125	28.8	19.8	39.8	39	163	23.9	15.5	35.0
Told stories	38	124	30.6	20.5	43.1	36	160	22.5	15.6	31.3
Sang songs or lullabies	90	125	72.0	60.0	81.5	116	163	71.2	59.6	80.5
Engaged in play	119	125	95.2	86.3	98.4	156	163	95.7	89.6	98.3
Named, counted, or drew things	58	125	46.4	33.4	60.0	64	163	39.3	28.5	51.2
One or more of these activities	119	125	95.2	86.3	98.4	157	163	96.3	89.9	98.7

Percent of children (aged 3–5 years) enrolled in and regularly attending preschool

Caregivers reported that three-quarters (74.9%) of children ages three through five were enrolled in preschool; 46.9 percent of them had regularly attended (i.e., did not miss any school days in the week preceding the survey). The proportions of girls and boys enrolled and regularly attending preschool were similar (see Table 15).

Table 2. Children ages 3–5 years who were enrolled in and regularly attended preschool

Enrollment & attendance	All children ages 3–5 years				
	n	N	%	95% CI	
				LL	UL
Enrolled	143	191	74.9	68.3	80.5
Regularly attended	67	143	46.9	37.4	56.5

Enrollment & attendance	Female children					Male children				
	n	N	%	95% CI		n	N	%	95% CI	
				LL	UL				LL	UL
Enrolled	59	80	73.8	62.8	82.4	84	111	75.7	67.7	82.2
Regularly attended	27	59	45.8	33.8	58.2	40	84	47.6	35.3	60.2

Legal Rights

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

Caregivers reported that 89.2 percent of children under their care had birth certificates. These caregivers were subsequently asked to show the certificate to the interviewer. As presented in Table 16a, about half (53.1%) of children had a birth certificate that was seen by the interviewers. Of note, caregivers who were interviewed in a location other than their households were excluded from the calculation of this indicator because they were not asked in advance to bring the birth certificate to the interview.

Although there was some variation among the age groups, the differences were not statistically significant. Percentages of children for whom birth certificates were seen were similar for female and male children (52.8% and 53.4%, respectively). The most common reason given for not showing a birth certificate was that someone else kept it (see Table 16b).

Table 3a. Children who had a birth certificate seen by the interviewer

Child's age (years)	All children of caregivers who were interviewed at their residence				
	n	N	%	95% CI	
				LL	UL
0–4	99	204	48.5	37.7	59.5
5–9	115	213	54.0	46.2	61.6
10–14	138	239	57.7	49.6	65.5
15–17	69	137	50.4	39.6	61.1
All ages	421	793	53.1	46.6	59.5

Child's age (years)	Female children					Male children				
	n	N	%	95% CI		n	N	%	95% CI	
				LL	UL				LL	UL
0–4	45	96	46.9	36.2	57.8	54	108	50.0	36.0	64.0
5–9	57	101	56.4	45.8	66.5	58	112	51.8	41.6	61.8
10–14	55	101	54.5	44.6	63.9	83	138	60.1	50.0	69.5
15–17	34	64	53.1	37.1	68.5	35	73	47.9	36.5	59.6
All ages	191	362	52.8	44.9	60.5	230	431	53.4	45.9	60.7

Table 16b. Reasons no birth certificate was shown to the interviewer

Reason given for not showing birth certificate	Children of caregivers who reported that the child had a birth certificate but did not show it to the interviewer	
	<i>n</i>	%
Caregiver preferred not to show it	9	2.6
Caregiver could not locate it	54	15.7
Someone else keeps it	280	81.6
All reasons	343	100.0

Education

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

Caregivers reported that almost all children ages 5 through 17 years under their care were enrolled in school (93.3%). However, as shown in Table 17, only about two-thirds (66.4%) were reported to be regularly attending school (i.e., enrolled in school and had not missed any days in the school week before the interview). Regular attendance among girls (66.9%) and boys (66.0%) was similar. Regular attendance was highest among 10- to 14-year-olds (71.0%), but the difference among age groups was not statistically significant. In Haiti, primary education begins at age six years and secondary education at age 14 years. Defining school levels by these age groups showed that regular attendance in primary and secondary school was similar (68.8% and 66.3%, respectively). No difference was observed between female and male children in primary and secondary school attendance.

Table 17. Children regularly attending school

Child's age (years)	All school-aged children				
	n	N	%	95% CI	
				LL	UL
5–9	169	275	61.5	53.9	68.5
10–14	242	341	71.0	64.1	77.0
15–17	127	194	65.5	58.9	71.5
Ages 5–17	538	810	66.4	62.2	70.4
Age groups according to school levels					
6–13 (primary)	337	490	68.8	63.3	73.8
14–17 (secondary)	175	264	66.3	60.6	71.6

Child's age (years)	Female children					Male children				
	n	N	%	95% CI		n	N	%	95% CI	
				LL	UL				LL	UL
5–9	81	130	62.3	51.9	71.7	88	145	60.7	52.6	68.2
10–14	113	161	70.2	62.7	76.8	129	180	71.7	62.5	79.4
15–17	67	99	67.7	54.7	78.4	60	95	63.2	55.0	70.7
Ages 5–17	261	390	66.9	60.7	72.6	277	420	66.0	61.4	70.3
Age groups according to school levels										
6–13 (primary)	164	234	70.1	62.4	76.8	173	256	67.6	60.7	73.8
14–17 (secondary)	90	137	65.7	55.2	74.9	85	127	66.9	59.3	73.8

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

Table 18 shows the percentage of children who progressed in school during the past year (i.e., the percentage of children whose caregiver reported them to be in a higher grade level at the time of the survey compared to their grade in the previous school year). Overall, 87.8 percent of children ages five through 17 years progressed in school, with no statistically significant difference between girls and boys. School progression was highest among 15- to-17-year-olds relative to younger children ($p=0.028$). Looking at age groups defined according to school level shows higher grade progression for secondary compared to primary school (91.8% and 85.2%, respectively; $p=0.023$). The difference in progression between school levels was greater for boys (91.2% vs. 83.3%) compared to girls (92.5% vs. 87.1%).

Table 18. Children who progressed in school during the past year

Child's age (years)*	All school-aged children									
	n	N	%	95% CI						
				LL	UL					
5–9	198	229	86.5	82.5	89.7					
10–14	262	305	85.9	80.2	90.1					
15–17	158	170	92.9	88.5	95.8					
Ages 5–17	618	704	87.8	84.7	90.3					
Age groups according to school levels*										
6–13 (primary)	367	431	85.2	80.8	88.7					
14–17 (secondary)	214	233	91.8	87.2	94.9					
Child's age (years)	Female children					Male children				
	n	N	%	95% CI		n	N	%	95% CI	
				LL	UL				LL	UL
5–9	102	112	91.1	84.3	95.1	96	117	82.1	76.0	86.9
10–14	124	144	86.1	76.7	92.1	138	161	85.7	79.6	90.2
15–17	80	86	93.0	84.9	96.9	78	84	92.9	85.3	96.7
Ages 5–17	306	342	89.5	84.8	92.8	312	362	86.2	82.0	89.5
Age groups according to school levels										
6–13 (primary)	183	210	87.1	80.4	91.8	184	221	83.3	78.2	87.3
14–17 (secondary)	111	120	92.5	85.2	96.4	103	113	91.2	84.9	95.0

* The difference among the three age groups is statistically significant at $p=0.028$. The difference between the two age groups defined by school levels is statistically significant at $p=0.023$.

Attitudes about Child Punishment

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

More than half of caregivers (58.1%) agreed that hitting or beating a child was always or sometimes an appropriate means of discipline or control in the home or school. No overall difference was seen between female and male caregivers. Middle-aged caregivers (those ages 31–50 years) were more likely than younger or older caregivers to agree with harsh physical punishment ($p=0.043$). This age difference was more pronounced among male caregivers (see Table 19).

Table 19. Caregivers who agree that harsh physical punishment is an appropriate means of discipline or control in the home or school

Caregiver's age (years)	All caregivers				
	n	N	%	95% CI	
				LL	UL
<18	0	0	--	--	--
18–30	44	91	48.4	35.0	61.9
31–50	159	252	63.1	55.2	70.3
51+	20	41	48.8	36.1	61.7
All ages*	223	384	58.1	50.8	65.1

Caregiver's age (years)	Female caregivers					Male caregivers				
	n	N	%	95% CI		n	N	%	95% CI	
				LL	UL				LL	UL
<18	0	0	--	--	--	0	0	--	--	--
18–30	42	88	47.7	34.5	61.1	2	3	66.7	13.8	96.2
31–50	150	241	62.2	54.4	69.4	9	11	81.8	46.4	95.9
51+	17	33	51.5	31.5	71.1	3	8	37.5	10.9	74.7
All ages	209	362	57.7	50.2	65.0	14	22	63.6	36.7	84.1

* The difference among age groups is statistically significant at $p=0.043$.

Household Economic Well-Being and Resilience

OVC_HT5: Percent of households able to access money to pay for expected household expenses

Few caregivers (16.1%) reported that their households were able to cover expected household expenses in the 12 months before the survey. Although male compared to female caregivers were more likely to report their households could cover expected expenses, the difference was not statistically significant (27.3% and 15.4%, respectively; $p=0.334$). Results are provided in Table 20.

Table 20. Households able to access money to pay for expected household expenses

Caregivers	n	N	%	95% CI	
				LL	UL
Females	56	363	15.4	12.0	19.6
Males	6	22	27.3	11.8	51.2
All	62	385	16.1	12.5	20.5

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

Almost two-thirds of the caregivers (64.8%) reported they had experienced an unexpected household expense in the past 12 months. Female caregivers were somewhat more likely to report an unexpected expense compared to male caregivers (65.4% and 54.5%, respectively). Among those who experienced an unexpected expense, only one-third of caregivers reported they had been able to access money to cover the expense. No differences were found between reports of female and male caregivers (see Table 21).

Table 21. Households able to access money to pay for unexpected household expenses

Sex of caregivers	Households that experienced an unexpected expense in past 12 months				
	n	N	%	95% CI	
				LL	UL
Female	236	361	65.4	59.8	70.6
Male	12	22	54.5	31.1	76.1
All	248	383	64.8	59.3	69.9
Sex of caregivers	Households able to access money to pay for unexpected expenses (among those experiencing an unexpected expense)				
Female	80	236	33.9	26.4	42.3
Male	4	12	33.3	10.4	68.3
All	84	248	33.9	26.5	42.2

Gender Norms

OVC_HT6: Gender Equitable Men (GEM) Scale: Violence and Daily Chores domains (for caregivers)

Two domains of the GEM Scale, Violence and Daily Chores, were included in the survey (Pulerwitz and Barker, 2008). Caregivers were read a series of statements and asked whether they agreed, partially agreed, or did not agree with each statement (scored 1, 2, and 3, respectively). The percentages of caregivers who agreed with each statement are given in Table 22a. There was greater agreement with the Daily Chores domain statements (which ranged from 40.7% to 95.6% agreement) compared to the Violence domain statements (which ranged from 7.3% to 33.2% agreement). Levels of agreement between female and male caregivers were similar on the Violence domain statements but differed on several of the statements in the Daily Chores domain.

Table 4a. Agreement with GEM Scale statements

GEM Scale Agreement with the following statements	Female caregivers		Male caregivers		All caregivers	
	n/N	%	n/N	%	n/N	%
Violence domain						
There are times when a woman deserves to be beaten.	27/359	7.5	1/22	4.5	28/381	7.3
A woman should tolerate violence to keep her family together.	77/357	21.6	5/22	22.7	82/379	21.6
It is all right for a man to beat his wife if she is unfaithful.	99/358	27.7	3/22	13.6	102/380	26.8
A man can hit his wife if she won't have sex with him.	28/359	7.8	0/22	0.0	28/381	7.3
If someone insults a man, he should defend his reputation with force if he has to.	108/359	30.1	4/22	18.2	112/381	29.4
A man using violence against his wife is a private matter that shouldn't be discussed outside the couple.	120/358	33.5	6/22	27.3	126/380	33.2
Daily chores domain						
Changing diapers, giving a bath, and feeding kids is the mother's/woman's responsibility.	332/361	92.0*	15/22	68.2*	347/383	90.6
A woman's role is taking care of her home and family.	350/363	96.4*	17/21	81.0*	367/384	95.6
The husband should decide to buy the major household items.	141/361	39.1*	15/22	68.2*	156/383	40.7
A man should have the final word about decisions in his home.	196/360	54.4	16/22	72.7	212/382	55.5
A woman should obey her husband in all things.	245/361	67.9	15/22	68.2	260/383	67.9

* The differences between female and male caregivers in levels of agreement were statistically significant at $p < 0.05$.

Scores for the statements were tallied to give each caregiver a total score for each domain. Higher scores represent more gender-equitable norms. Results are shown in Table 22b. The mean score for the Violence domain was 14.0 (out of a maximum possible score of 18), with a minimum score of 6 and a maximum score of 18. The mean score for the Daily Chores domain was 6.7 (out of a maximum possible score of 15), with a minimum score of 5 and a maximum score of 12. There were no differences in scores between female and male caregivers.

Table 22b. GEM Scale: Violence and Daily Chores domains

Sex of caregiver	n	Mean	Median	SD	Range
Violence domain (possible score range: 6–18)					
Female caregivers	348	14.0	14.0	2.84	6–18
Male caregivers	22	13.9	13.5	2.31	10–18
All caregivers	370	14.0	14.0	2.81	6–18
Daily Chores domain (possible score range: 5–15)					
Female caregivers	357	6.7	7.0	1.45	5–12
Male caregivers	21	6.7	6.0	1.98	5–12
All caregivers	378	6.7	7.0	1.48	5–12

DISCUSSION

Orphans and vulnerable children programs deliver health and social services that are critical to child well-being and improved HIV prevention, care, and treatment outcomes, thus contributing directly to the accelerated PEPFAR 90-90-90 targets and, ultimately, epidemic control (USAID, 2017; PEPFAR, December 2017). The BEST project focuses on delivery of services to households with mothers and children living with HIV, and supports child- and caregiver-centered, government-backed OVC programming that targets a full range of OVC needs according to the age and developmental stage of the child. The PEPFAR MER OVC ESI survey conducted for the BEST OVC program provided data to help assess the well-being of children and households currently served by the project, measured in internationally accepted developmental milestones. The results are useful in informing OVC policies and programs in Haiti and at PEPFAR headquarters.

The MER OVC survey targeted households actively enrolled in the BEST OVC program. This program focuses on households of women participating in Mothers Clubs through their linkages with prevention of mother-to-child transmission services and households with at least one child living with HIV through the child's participation in a Kids Clubs. More than 80 percent of households were linked to the OVC program through Mothers Clubs; thus, it is not unexpected that most caregivers interviewed were female. Female compared to male caregivers were more likely to report that both the caregiver and children in the household had received services from the BEST project, while a higher percentage of male compared to female caregivers reported that only the children had received services. Some of the differences found between female and male caregivers in the types of services they had recently received may be the result of these different modes of service delivery. Further analysis of the relationship between the MER OVC ESIs, services received, and the channels through which services were delivered (i.e., through Mothers Clubs, Kids Clubs, or both) may provide useful information regarding optimal delivery and packaging of services for promoting the well-being of OVC, their caregivers, and households. However, limitations of the data such as caregivers' poor recall of services or misunderstanding of the survey questions should also be considered. For example, about one-third of female caregivers indicated that both they and a child in the household had participated in a BEST club, yet mothers in clubs are typically pregnant, breastfeeding, or with young children, most of whom are HIV-negative. Thus, this proportion seems unusually high, given that only HIV-positive 9- to 17-year-olds are enrolled in Kids Clubs. It is also inconsistent with enrollment records maintained by the BEST project.

The percentage of children too ill to participate in daily activities is a direct measure of **children's health** and well-being (MEASURE Evaluation, 2014), and reflects their ability to function in daily life. One quarter of children were reported by caregivers to be too sick to participate in daily activities at some point within the two weeks before the survey. Children under age five were twice as likely as older children to be sick. Fever, flu, and cough were the most common types of illness reported. More than half (55.0%) of children with recent illness were seen at a health facility. Children under age five were somewhat more likely than older children to be seen at a health facility. These estimates are higher than those reported in the recent Demographic and Health Survey (EMMUS VI), which found that advice or treatment was sought for 42.2 percent, 40.1 percent, and 34 percent of Haitian children under age five who had recent fever, respiratory infection, and diarrhea, respectively (Institut Haïtien de l'Enfance (IHE) [Haiti] and ICF, 2018). This may suggest that sick children served by the BEST project are more likely than other sick children in Haiti to be linked to health services.

Caregivers reported awareness of HIV status for three-quarters of the children under their care. Among the children for whom caregivers reported knowing their HIV status, 18.1 percent were reported to be living with

HIV, reflecting the focus of the BEST OVC program on HIV-infected children. Almost all children living with HIV (95.4%) were reported to be taking ARV drugs; most (91.7%) also were reported to have taken their medication within the past day. The finding that the HIV status of one-quarter of the children was unknown to the caregivers may point to a potential gap in efforts to get children tested for HIV. However, it may also be the case that these children were assessed for HIV risk and an HIV test was not indicated. The survey did not ask about risk assessment. Other limitations of the data should also be kept in mind. For example, these indicators capture only caregivers' knowledge, which may or may not accurately reflect the child's knowledge (especially among older children), the child's HIV status, or treatment access. Additionally, given the extent of HIV stigma in Haiti, it is possible that caregivers were unwilling to acknowledge awareness of a child's HIV status or disclose that status, thus potentially contributing to under-reporting on these indicators.

Proper nutrition in early life is crucial for child development and subsequent life outcomes (Naudeau, et al., 2011). Based on MUAC measurements, the survey showed that 2.6 percent of children ages 6 to 59 months were found to be **undernourished**, indicating that severe, acute malnutrition may not be a significant problem among BEST beneficiaries. This estimate is somewhat lower than the EMMUS-VI national estimate of 3.7 percent, which measured acute malnutrition (moderate and severe) based on weight for height (IHE and ICF, 2018). Differences between the two surveys perhaps can be explained by the different measures used to assess malnutrition or may reflect that BEST project beneficiaries are somewhat better off nutritionally than children under age five in the population at large.

Early childhood development is essential to a full and productive life for a child, and the progress of a nation (UNICEF, n.d.). Stimulating activities enhance a young child's physical and mental development. The survey found very high levels of caregiver or other household adult engagement in stimulating activities with children under age five: 95.8 percent of children were reported to have been read to or looked at a picture book together; told stories; sang songs or lullabies; engaged in play; or named, counted, or drew things at some point during the three days preceding the survey. The most frequently reported activities were playing and singing. More stimulating activities of reading or looking at books were less commonly reported. Girls and boys were equally engaged by adults. These estimates are considerably higher than those reported in EMMUS-VI, which found that 63.3 percent of children ages 36–59 months were engaged in four or more activities to promote learning and school readiness with an adult in the household in the three days preceding the survey (IHE & ICF, 2018). However, direct comparisons between OVC_STIM and the EMMUS-VI child engagement measure should be made with caution given the difference in their definitions.

Haiti's Ministry of Education and Vocational Training promotes early childhood education and defines two periods of education, provided both formally and informally: initial education, from 0 to 3 years, and pre-primary school education, from 4 to 6 years. The objective of this early education is to foster a child's overall development by bringing out her or his potential for lifelong learning (UNESCO International Bureau of Education, 2006). The survey measured pre-primary school participation as an additional indicator of **early childhood development** and found that three-quarters of children ages three through five were enrolled in preschool—higher than the EMMUS-VI report of a national preschool enrollment rate of 62.7 percent (IHE & ICF, 2018). However, among enrolled pre-primary students in the survey, only about half had regularly attended school (i.e., did not miss any school days in the week preceding the survey). The survey did not ascertain reasons for absenteeism, but the high rates of illness found among young children may offer a partial explanation.

According to Article 7 of the 1989 U.N. Convention on the Rights of the Child, “*A child shall be registered immediately after birth and shall have the right from birth to a name, the right to acquire a nationality, and as far as possible, the right to know and be cared for by his or her parent,*” (United Nations General Assembly, 1989). Haitian law (Chapter II of Law No. 3 of the Haitian Civil Code, Article 55) stipulates that births are to be registered in the month of

the child's birth and birth certificates are to be issued (Gouvernement d'Haiti, 1864). PEPFAR has acknowledged the importance of birth certificates as essential for tracking vital health statistics and facilitating access to services. Birth registration and certificates are also acknowledged as important tools in the prevention of child trafficking (UNICEF, 2013). Caregivers in the survey interviewed in their households reported that 89.2 percent of children under their care had birth certificates but were able to show certificates for about half of the children. The most common reason cited for not showing a birth certificate was that someone else kept it. EMMUS-VI asked about birth certificates for children under age five only and reported that birth certificates were seen by the interviewer for 42.1 percent of children nationally (IHE & ICF, 2018). In the BEST survey, birth certificates similarly were shown for 48.5 percent of 0- to 4-year-olds.

Education support is a key component of the BEST OVC program, and more than half (56.0%) of caregivers indicated their household had received education support in the past six months. While more than 90 percent of school-aged children were reportedly enrolled in school, only two-thirds were reported to be attending school regularly (i.e., enrolled in school and did not miss any days in the school week before the interview). Regular attendance (and also enrollment) among secondary school-age children (i.e., ages 14–17) was found to be similar to that among primary school-age children (i.e., ages 6–13), whereas other national-level data have shown a drop-off in school enrollment starting at age 15 years (World Bank and Observatoire National de la Pauvreté et de l'Exclusion Sociale [ONPES], 2014). The Ministry of Education and Vocational Training's current strategic plan recognizes that, in addition to poverty, there are many obstacles to school enrollment: *"The strong correlation of school enrollment with individual and household factors, particularly disability and living in a household not headed by one's parents, points to important barriers besides costs,"* (Ministère de L'Éducation Nationale et de La Formation Professionnelle, 2013). These same factors are likely to also affect school attendance.

High rates of **grade progression** were reported among both primary and secondary school-age children. They are consistent with estimates from other sources that about 10 percent of primary school children repeat grades (World Bank & ONPES, 2014; Education Policy and Data Center, 2009). However, as the World Bank notes, these progression rates show only part of the education challenge. For example, when these progression rates are combined with a two to six percent dropout rate for each primary school grade and the fact that Haitian children begin primary school two years late (i.e., at an average age of about 7.8 years), projections show that only about 58 percent of children in first grade will arrive at sixth grade, and only 29 percent will reach the final year of upper secondary (World Bank and ONPES, 2014). In the OVC MER survey, students in the first year of primary school had a mean age of 7.5 years, echoing the national figure. As the authors of the World Bank and ONPES report highlight, there is a need to identify and address the drivers behind late primary school starts, as well as grade repetition and dropout.

In the OVC MER survey, more than half of caregivers agreed that hitting or beating a child was always or sometimes an appropriate means of discipline or control in the home or school. This acceptance of **harsh physical punishment** against children is higher than other recently reported data. For example, a UNICEF study that found that 30 percent of adults think that corporal punishment is necessary to raise children (UNICEF, 2014), and EMMUS-VI reported that 27 percent of parents or caregivers agreed that physical punishment is necessary to educate a child (IHE & ICF, 2018). These attitudes also reflect the high rates of physical violence experienced by children. For example, 85.1% of children ages 1 to 14 years reportedly experienced physical or psychological violence as a means of discipline during the month preceding the EMMUS-VI survey, and 14.2 percent were subjected to severe physical punishment (IHE & ICF, 2018). Almost two-thirds of both females and males who participated in the Haiti Violence Against Children Survey reported some experience of physical violence before age 18 by an adult household member or authority figure in the

community (United States Centers for Disease Control and Prevention, Interuniversity Institute for Research and Development, & Comité de Coordination, 2014). This generally accepted cultural practice has deep implications for children who are already vulnerable. The results of the OVC MER survey reiterate the need to intensify child violence prevention and response programs, and policies to address abuse and violence against children.

Less than 20 percent of caregivers reported that their households were able to cover expected household expenses in the past 12 months, which confirms the **economic vulnerability** of the households served by the BEST OVC program. This finding is supported by EMMUS-V reports that 64 percent of Haitian households did not have sufficient food or money to buy food, and experienced a complete lack of food in the four weeks preceding the survey (Cayemittes, et al., 2013). It is also consistent with national estimates of an overall poverty headcount of 58.5 percent and an extreme poverty rate of 23.8 percent (World Bank and ONPES, 2014). About two-thirds (64.6%) of caregivers reported they had experienced an unexpected household expense such as a house repair or urgent medical treatment in the past 12 months—a somewhat lower prevalence than the nearly 75 percent of Haitian households impacted by at least one economically damaging shock in 2012 (World Bank and ONPES, 2014). Among the caregivers whose households had experienced an unexpected expense, only one-third reported they had been able to access money to cover the expense, indicating low **household economic resilience** and the absence of adequate safety nets for OVC households.

Gender norms held by caregivers influence the ways in which they nurture and care for children. Two domains of the GEM Scale—Violence and Daily Chores—were included as supplemental indicators in the survey to assess the extent to which caregivers supported gender-equitable norms. Results showed more equitable norms related to violence compared to daily chores (i.e., agreement with inequitable Violence domain statements ranged from 7.3% to 33.2%, whereas agreement with inequitable Daily Chores domain statements ranged from 40.7% to 95.6%). GEM Scale scores for both domains were similar for female and male caregivers, which is contrary to several studies in other countries that have reported more gender-equitable scores among men compared to women (Stephenson, et al., 2012; Kazaura, et al., 2015; Lusey, et al., 2018). Sex differences appeared, however, on several of the individual statements of the Daily Chores domain. Specifically, female compared to male caregivers were more likely to agree that it is the woman’s role and responsibility to care for children and the household, whereas male caregivers were more likely than female caregivers to agree that husbands should make decisions about household purchases. Although the difference was not statistically significant, female (27.7%) compared to male (13.6%) caregivers were more likely to agree that it is all right for a man to beat his wife if she is unfaithful. A similar difference between women and men was found in another recent survey in Haiti, although agreement with the statement among both sexes was much higher (i.e., 71.4% of women and 28.6% of men agreed that it is acceptable for a man to hit his wife if she slept with another man) (Philippe, et al., 2017). Few caregivers (i.e., 7.8% of females and no males) agreed that a man can hit his wife if she refuses to have sex with him, in comparison with the EMMUS-VI finding that 17 percent of women and 11 percent of men agreed with this statement (IHE and ICF, 2018). Differences (or lack of differences) between female and male caregivers on gender norms indicators as well as the other caregiver OVC MER indicators should be interpreted with caution, however, given that so few male caregivers are represented in the sample.

RECOMMENDATIONS

The MER OVC survey for the BEST OVC program provided valuable information on the current well-being of project beneficiaries and highlighted several areas that merit further attention. Based on the survey findings, the following recommendations are offered to improve the well-being of orphans and vulnerable children in Haiti:

- Raise caregivers' awareness about childhood illness, prevention, and services, and provide support to help keep children healthy—particularly young children. Continue to study the causes of illness and barriers to prevention and care to target interventions. A high percentage of children are receiving health facility care, so the types and quality of care they are receiving should also be examined.
- Assess the HIV risk of children and ensure that those at risk receive an HIV test. For those living with HIV, continue to strengthen linkages to HIV care and treatment, and support ARV adherence.
- Accelerate efforts to reduce HIV-related stigma and discrimination to promote HIV testing, status disclosure, access to care, and viral load suppression – as well to promote human rights and dignity.
- Increase enrollment of young children in preschool to promote early childhood development. Additionally, raise caregivers' awareness of the importance of engaging children in mentally stimulating activities and offer support to caregivers to increase their engagement in more stimulating activities, such as drawing, counting, story-telling, and reading and looking at picture books.
- Assist caregivers to register births and help children obtain birth certificates, especially those under age five.
- Determine causes of school absenteeism and address barriers to attendance and retention; as noted earlier, identify and address the drivers behind late primary school starts and address factors that contribute to lower grade progression among primary school students.
- Strengthen psychosocial support to households to include parenting programs that emphasize the dangers of harsh physical punishment and impart supportive parenting skills. Work with other primary adults in children's lives, such as healthcare providers and educators, to change norms and practices related to corporal punishment.
- Implement strategies to address harmful norms and practices surrounding intimate partner violence; acceptance and perpetuation of partner violence is linked to attitudes toward and perpetration of violence against children and contributes to other harmful effects on children. Implement or strengthen programs such as positive parenting to promote a shift in gender norms and support an expanded role for men in the care of children and the household.
- Intensify economic strengthening interventions to build the economic resilience of OVC households. Evaluate the impact of current economic strengthening interventions and scale up evidence-based approaches.
- Further analyze the survey data to explore determinants of child and household well-being and associations among outcomes. Cross-validate and triangulate the survey findings with routine project monitoring data and other data sources to facilitate interpretation of data and inform future programming.

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APPENDIX

Haiti MER OVC ESI Survey Questionnaire

Cover Sheet

IDENTIFICATION DATA

001	Household IDENTIFICATION Key	
002	OVC Service Delivery Partner (IP)	<div>BEST/Caris Foundation 1</div> <div>Partners in Health 2</div>
003	Hospital where household is registered	Name: Code: Department: Commune:
004	Location of interview	<div>Caregiver residence 1</div> <div>Hospital 2</div> <div>School 3</div> <div>Other 4</div> <div>Specify: _____</div>
005	Caregiver residence location	Department: Commune: Locality:
005a	Caregiver residence area	<div>Urban 1</div> <div>Rural 2</div>
006	HOUSEHOLD ID from IP database	

INTERVIEW LOG

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

Interview comment codes: 1–Interview completed; 2–Appointment made for later today; 3–Appointment made for another day; 4– Household was unknown to facility or local guides, no follow-up; 5– Household moved out of the service delivery area less than 6 months ago, no follow up; 6–Household moved out of the service delivery area more than 6 months ago, no follow up; 7- Caregiver refused to be interviewed; 8- Interview started, but not completed (note reason); 9- Other (specify)

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

COMMENTS:

1. MER Indicator Questionnaire: 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	How old were you at your last birthday? Do not leave blank. If unknown, ask respondent to estimate.	[____] years	
3	For BEST: Have you or any child in the household you care for ever participated in a Mothers Club or Kids Club at the hospital? For PIH: Is your household enrolled in the PIH program that serves vulnerable children? For example, have you ever received a home visit from the social worker regarding care for you and the children you care for? Or have you been screened at the facility regarding services for you and the children you care for?	Yes, Mothers Club only 1 Yes, Kids Club only 2 Yes, both Mothers and Kids Clubs 3 No club participation 4 Don't know 8 No answer 9 Yes 1 No 2 Don't know 8 No answer 9	If No, DK, or No answer: 7
4	For BEST: How many months or years ago did you or any child you care for start participating in a Mothers Club or Kids Club at the hospital? <i>If more than one participant, record time for the longest participating.</i> For PIH: How many months/years ago was your household first enrolled in the PIH program?	[____] months Record 88 for Don't know; 99 for No answer	
5	Have you received any services for you and/or the child/children you care for in the past 6 months?	Yes 1 No 2 Don't know 8 No answer 9	If No, DK, or No answer: 7

6	What types of services have you or other members of your household received from [BEST/PIH] in the past 6 months? Read each item and check if caregiver says s/he has received the service. Ask if s/he received any other services from [BEST/PIH] and if so, write out responses (under Other) for those not on the list.		
	6.1 Referral to health services for a child 6.2 Referral of child for immunizations 6.3 Referral to HIV testing and counseling 6.4 Support for disclosing HIV status	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
	6.5 Referral for ART 6.6 Psychosocial support/counseling 6.7 Payment of schools fees 6.8 Support for school supplies and materials 6.9 Help to get child's birth certificate 6.10 Water-treatment products 6.11 Hygiene kits 6.12 De-worming medicines 6.13 HIV prevention education 6.14 Help for addressing sexual or other forms of violence 6.15 Referral to GBV services 6.16 Household economic strengthening such as MUSO, savings groups, or kitchen gardens 6.17 Provision of condoms 6.18 Referral to family planning services 6.19 Referral to child protection services 6.20 Referral for cervical cancer screening 6.21 Support for housing or shelter 6.22 Other	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Specify: _____	
7	Have you ever attended school?	Yes 1 No 2 Don't know 8 No answer 9	If No, DK, or No answer: 9
8	What is the highest level of school you attended?	Kindergarten0 Primary1 Secondary2 University3 Don't know 8 No answer 9	

9	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 No answer 9			
10	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 No answer 9			
11	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
	11.1 Changing diapers, giving a bath, and feeding kids is the mother's/woman's responsibility.	1	2	3	9
	11.2 A woman's role is taking care of her home and family.	1	2	3	9
	11.3 The husband should decide to buy the major household items.	1	2	3	9
	11.4 A man should have the final word about decisions in his home.	1	2	3	9
	11.5 A woman should obey her husband in all things.	1	2	3	9
12	Continue reading statements...	AGREE	PARTIALLY AGREE	DO NOT AGREE	No Answer
	12.1 There are times when a woman deserves to be beaten.	1	2	3	9
	12.2 A woman should tolerate violence to keep her family together.	1	2	3	9
	12.3 It is alright for a man to beat his wife if she is unfaithful.	1	2	3	9
	12.4 A man can hit his wife if she won't have sex with him.	1	2	3	9
	12.5 If someone insults a man, he should defend his reputation with force if he has to.	1	2	3	9

	12.6 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		
		No answer	9		
14	Does your household have any of the following? 14.1 Improved source of drinking water 14.2 Improved toilet facility 14.3 Electricity 14.4 House with cement floor 14.5 House with concrete roof	<u>For each item:</u> Yes 1 No 2 Don't know 8 No answer 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 answer	9		
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		If No, DK, or No answer: 18
		No	2		
		Don't know	8		
		No answer	9		
17	Was your household able to pay for these <u>unexpected</u> expenses?	Yes	1		
		No	2		
18	How many children ages 0–17 years in your household are you responsible for?	[_____] children			

Starting with the oldest, please tell me the first names and ages of the children under age 18 who you care for or for whom you are responsible in your household. **Make sure that the total number of children is the same as the response given to question 18 above.**

No.	First name	Age (years)	Questionnaire		For BEST only, Is child enrolled in a Kids Club? Y/N
			0–4 years	5–17 years	
1	<i>Example.</i> Samuel	6		X	Y

2. MER Indicator Questionnaire: 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 Enter 0 if less than one year of age and then record age in months [____] months	
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: Go to 4
	3.3 Reason for not showing birth certificate	Prefers not to show it 1 Can't locate it 2 Someone else keeps it 3 Other 4 Specify: _____	
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 (1) through (5) one at a time.	Yes No DK NR	
		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 Sang 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 pre-school (Kindergarten)?	Yes 1 No 2 Don't know 8 No answer 9	If No, DK, or No answer: 8
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 kindergarten year is [NAME] in now?	<input type="text"/> <input type="text"/> Record 88 for Don't know; 99 for No answer	
8	Was [NAME] enrolled in pre-school (Kindergarten) 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 kindergarten year was [NAME] in during the previous school year?	<input type="text"/> <input type="text"/> Record 88 for Don't know; 99 for No answer	
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	If No, DK, or No answer: 13
11	What was the nature of the illness? Read each item and enter caregiver response. Then ask if the child had any other illness, and if so, write out responses (under Other) for those not on the list. 11.1 Fever 1=Yes 2=No 3=DK 11.2 Diarrhea 1=Yes 2=No 3=DK 11.3 Cough 1=Yes 2=No 3=DK 11.4 Malaria 1=Yes 2=No 3=DK 11.5 Flu 1=Yes 2=No 3=DK 11.6 Injuries 1=Yes 2=No 3=DK 11.7 Other 1=Yes 2=No 3=DK Specify: _____		

12	<p>What did you do for this child's illness?</p> <p>Read each item and enter caregiver response. Then ask the caregiver "What else did you do?" Write out responses (under Other) for those not on the list.</p> <p>12.1 Gave home remedy 1=Yes 2=No 3=DK</p> <p>12.2 Took child to [BEST/PIH-supported] hospital 1=Yes 2=No 3=DK</p> <p>12.3 Took child to other health facility 1=Yes 2=No 3=DK</p> <p>12.4 Went to traditional healer 1=Yes 2=No 3=DK</p> <p>12.5 Got medicine from street vendor 1=Yes 2=No 3=DK</p> <p>12.6 Other 1=Yes 2=No 3=DK</p> <p>Specify: _____</p>		
13	<p>May I measure your child's mid-upper arm circumference?</p> <p>For children 6- 59 months, measure the child's mid-upper arm circumference using the MUAC tape and record measurement.</p>	<p>[][].[][] Cm</p> <p>Record 88.88 if permission not given 99.99 if child not present</p>	
14	<p>Has [NAME] ever received services or participated in activities from [BEST/PIH]?</p> <p>READ: For example, Referral to health services for the child, Referral of child for immunizations, Referral of child to HIV testing and counseling, Referral for ART, Psychosocial support/counseling, Payment of schools fees, Support for school supplies and materials, Help to get child's birth certificate, Water-treatment products, Hygiene kit, De-worming medicines, Referral to social protection services, Help for addressing sexual or other forms of violence, Referral to services for experience of violence, etc.</p>	<p>Yes 1</p> <p>No 2</p> <p>Don't know 8</p> <p>No answer 9</p>	<p>If No, DK, or No answer: 17</p>
15	<p>How many months ago did [NAME] start receiving services or participating in activities from [BEST/PIH]?</p>	<p>[] months</p> <p>Record 88 for Don't know; 99 for No answer</p>	
16	<p>Has [NAME] received services or participated in activities from [BEST/PIH] in the last 6 months?</p>	<p>Yes 1</p> <p>No 2</p> <p>Don't know 8</p> <p>No answer 9</p>	

17	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
18	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
19	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: end
20	Is [NAME] currently taking antiretroviral (ARV) drugs?	Yes 1 No 2 Don't know 8 No answer 9	If No, DK, or No answer: end
21	When was the last time [NAME] took her/his ARV drugs?	Number of days ago: [__] 0=today 88= Don't know 99=No answer	

3. MER Indicator Questionnaire: Child Ages 5–17 years

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

No.	Question	Coding Category	SKIP
1	Is [NAME] female or male?	Female 1 Male 2	
2	How old was [NAME] at their 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: Go to 4
	3.3 Reason for not showing birth certificate	Prefers not to show it 1 Can't locate it 2 Someone else keeps it 3 Other 4 Specify: _____	
4	Is [NAME] currently enrolled in school?	Yes 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	
6	6.1 What education level is [NAME] currently attending?	Kindergarten (1-3) 0 Primary (1-9). 1 Secondary (10-12) 2 University (1-4). 3 Don't know 8 No answer 9	

	6.2 What school grade is [NAME] currently attending?	<div> <div></div> <div></div> </div> 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?	Kindergarten (1-3)..... 0 Primary (1-9)..... 1 Secondary (10-12)..... 2 University (1-4)..... 3 Don't know 8 No answer 9	
	8.2 What school grade did [NAME] attend during the previous school year?	<div> <div></div> <div></div> </div> 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	If No, DK, or No answer: 12
10	What was the nature of the illness? Read each item and enter caregiver response. Then ask if the child had any other illness, and if so, write out responses (under Other) for those not on the list. 10.1 Fever 1=Yes 2=No 3=DK 10.2 Diarrhea 1=Yes 2=No 3=DK 10.3 Cough 1=Yes 2=No 3=DK 10.4 Malaria 1=Yes 2=No 3=DK 10.5 Flu 1=Yes 2=No 3=DK 10.6 Injuries 1=Yes 2=No 3=DK 10.7 Other 1=Yes 2=No 3=DK Specify: _____		

11	<p>What did you do for this child's illness?</p> <p>Read each item and enter caregiver response. Then ask the caregiver "What else did you do?" Write out responses (under Other) for those not on the list.</p> <p>11.1 Gave home remedy 1=Yes 2=No 3=DK</p> <p>11.2 Took child to [BEST/PIH-supported] hospital 1=Yes 2=No 3=DK</p> <p>11.3 Took child to other health facility 1=Yes 2=No 3=DK</p> <p>11.4 Went to traditional healer 1=Yes 2=No 3=DK</p> <p>11.5 Got medicine from street vendor 1=Yes 2=No 3=DK</p> <p>11.6 Other 1=Yes 2=No 3=DK</p> <p>Specify: _____</p>			
12	<p>Has [NAME] ever received services or participated in activities from [BEST/PIH]?</p> <p>READ: For example, Referral to health services for the child, Referral of child for immunizations, Referral of child to HIV testing and counseling, Referral for ART, Psychosocial support/counseling, Payment of schools fees, Support for school supplies and materials, Help to get child's birth certificate, Water-treatment products, Hygiene kit, De-worming medicines, HIV prevention education, Referral to social protection services, Help for addressing sexual or other forms of violence, Referral to services for experience of violence, etc.</p>	<p>Yes 1</p> <p>No 2</p> <p>Don't know 8</p> <p>No answer 9</p>	<p>If No, DK, or No answer: 15</p>	
13	<p>How many months ago did [NAME] start receiving services or participating in activities from [BEST/PIH]?</p>	<p>[] months</p> <p>Record 88 for Don't know; 99 for No answer</p>		
14	<p>Has [NAME] received services or participated in activities from [BEST/PIH] in the last 6 months?</p>	<p>Yes 1</p> <p>No 2</p> <p>Don't know 8</p> <p>No answer 9</p>		
15	<p>Has [NAME] ever been tested to see if he/she has the AIDS virus?</p>	<p>Yes 1</p> <p>No 2</p> <p>Don't know 8</p> <p>No answer 9</p>	<p>If No, DK, or No answer: end</p>	

16	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
17	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
18	Is [NAME] currently taking antiretroviral (ARV) drugs?	Yes 1 No 2 Don't know 8 No answer 9	If No, DK, No answer: end
19	When was the last time [NAME] took her/his ARV drugs?	Number of days ago: [__] 0=today 88= Don't know 99=No answer	

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