Monitoring Outcomes of PEPFAR Orphans and Vulnerable Children Programs in Nigeria:

Widows and Orphans Empowerment Organization (WEWE) 2016 Survey Findings

Walter Obiero, PhD, Elizabeth Omoluabi, PhD, Akanni Akinyemi, PhD, and **Adesegun Fatusi, PhD**

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USAID FROM THE AMERICAN PEOPLE

PEPFAR

MEASURE Evaluation

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This report presents the findings of a study on orphans and vulnerable children (OVC) monitoring, evaluation, and reporting (MER) Essential Survey Indicators in Nigeria. The USAID- and PEPFAR-funded MEASURE Evaluation conducted the study among the beneficiaries of the Widows and Orphans Empowerment Organization (WEWE), in partnership with the Center for Research, Evaluation Resources and Development (CRERD) and the Academy for Health Development (AHEAD)—two research organizations based in Ile-Ife. The CRERD/AHEAD consortium finalized the design and study protocol; obtained ethical clearance; and conducted all data collection activities, including co-facilitating the training for data collectors, piloting final tools and consent forms, developing the field manuals and data quality procedures, developing a data collection tracking database, developing the electronic data collection scripts in Open Data Kit, undertaking data collection in the field, data cleaning, analyses, and report writing.

MEASURE Evaluation, through the technical lead of Dr. Walter Obiero, provided technical support throughout the survey. Dr. Elizabeth Omoluabi, Dr. Akanni Akinyemi, and Prof. Adesegun Fatusi (CRERD/AHEAD Consortium) compiled the report, with technical support from Dr. Obiero and his colleagues from the Nigeria office of MEASURE Evaluation, Palladium. We also wish to acknowledge the technical support and guidance received from Susan Settergren and Dr. Lisa Parker (both of MEASURE Evaluation, Palladium) for their technical guidance and extensive reviews of the report. We thank Lisa Marie Albert, of MEASURE Evaluation, Palladium, for assistance with weighting the survey data. We thank the MEASURE Evaluation knowledge management team at the University of North Carolina at Chapel Hill for their editorial and production assistance.

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CONTENTS

TABLES

ABBREVIATIONS

AHEAD	Academy for Health Development
ART	antiretroviral therapy
CBO	community-based organization
CD	cluster of differentiation
CDC	Centers for Disease Control and Prevention
CRERD	Centre for Research Evaluation, Resources and Development
CRS/SMILE	Catholic Relief Services
FBO	faith-based organization
FMWASD	Federal Ministry of Women Affairs and Social Development
HTC	HIV testing and counseling
IP	implementing partner
LGA	local government area
LOPIN	Local Partners for Orphans and Vulnerable Children
M&E	monitoring and evaluation
MER	monitoring, evaluation, and reporting
MICS	Multiple Indicator Cluster Survey
MUAC	mid-upper arm circumference
NGO	nongovernmental organization
NPA	National Plan of Action
OVC	orphans and vulnerable children
PEPFAR	U.S. President's Emergency Plan for AIDS Relief
RAAAPP	Rapid Assessment, Analysis and Action Planning Process
U.S.	United States
USAID	U.S. Agency for International Development
USG	U. S. Government
WEWE	Widows and Orphans Empowerment Organization

EXECUTIVE SUMMARY

Survey Background

Investment programs to improve the well-being of approximately 17.5 million orphans and vulnerable children (OVC) and their households in Nigeria have been substantial, yet their impact is uncertain (United States President's Emergency Plan for AIDS Relief [PEPFAR], 2012). To address this uncertainty, in 2014, PEPFAR introduced a set of outcome indicators for OVC programs, referred to as the Monitoring, Evaluation, and Reporting (MER) Essential Survey Indicators, with the requirement that they be collected every two years by a research organization external to the OVC program. These outcome indicators reflect internationally accepted developmental milestones and collectively measure the holistic well-being of children over time. This survey was designed to use a standard method developed to apply across multiple countries to provide measurable indicators on PEPFAR-supported projects that aim to improve the well-being of OVC in Nigeria.

Objective of the Survey

The objective of this survey was to collect the first round of the nine essential outcome indicators for enrolled active beneficiaries of the Widows and Orphans Empowerment Organization (WEWE). This survey provides the first estimates of these indicators and will be repeated at two-year intervals to monitor changes in the well-being of OVC and their caregivers over time.

Survey Design and Methods

The survey design used a descriptive cross-sectional approach to assess the well-being of vulnerable households, caregivers, and children enrolled in the WEWE project in Akwa Ibom State. The targeted population groups were registered beneficiaries of the WEWE project, including primary caregivers ages 18+ years and children ages 0–17 years (questions were directed to the primary caregiver). In all, the survey covered 1,735 children and 598 caregivers.

Major Findings

The major findings of the MER Essential Survey Indicators are presented in Table 1.

Table 1. Major findings of the MER essential survey

Indicators	All		Male	Female
	Number	% [95% Confidence Interval]	% [95 % Confidence Interval]	% [95% Confidence Interval]
OVC_HIVST: Percent of children (ages 0–17 years) whose primary caregiver knows the child's HIV	2,223	52.9 [43.3–62.2]	50.8 [41.4–58.6]	54.9 [44.9–64.5]
OVC_NUT: Percent of children (ages 6–59 months) who are undernourished	481	1.4 [0.6–3.1]	1.1 [0.2–5.7]	1.6 [0.6–4.3]
OVC_SICK: Percent of children (ages 0–17 years) too sick to participate in daily activities	2,223	35.5 [30.7–40.7]	35.1 [30.5–40.2]	35.8 [30.4–41.7]
OVC_BCERT: Percent of children (ages 0–17 years) who have a birth certificate	2,223	20.4 [15.1–27.1]	20.4 [14.8–27.4]	20.5 [15.0–27.4]
OVC_SCHATT: Percent of children (ages 5–17 years) regularly attending school	1,506	58.6 [51.6–65.4]	58.4 [50.7–65.8]	58.9 [51.5–65.8]
OVC_PRGS: Percent of children (ages 5–17 years) who progressed in school during the last year*	1,563	92.0 [89.3–94.1]	91.5 [88.9–94.1]	92.5 [89.3–94.7]
OVC_STIM: Percent of children < 5 years of age who recently engaged in stimulating activities with any household member > age 15 years	506	94.3 [90.7–96.6]	93.7 [87.8–96.8]	94.9 [90.9–97.2]
OVC_CP Percent of caregivers who agree that harsh physical punishment is an appropriate means of discipline or control of children in the home or at school	629	77.9 [69.0–84.8]	79.1 [71.4–85.1]	72.8 [51.9–86.9]
OVC_MONEY: Percent of households able to access money to pay for unexpected household expenses	437	11.1 [6.6–18.0]	11.0 [6.7–17.5]	11.3 [5.1–23.2]
Nigeria-Specific Indicators				
OVC_NG1: Percent of households that have attained food security in the last three months	629	15.0 [11.3–19.0]	9.4 [0.54–18.6]	16.2 [11.8–21.8]
OVC_NG2: Proportion of children and caregivers with adequate shelter	629	21.2 [15.8–28.0]	24.5 [16.1–35.4]	20.5 [14.9–27.6]
OVC_NG3: Percent of children having access to basic healthcare services	2,223	26.7 [20.9–33.4]	26.9 [20.5–26.9]	26.5 [20.5–33.5]
OVC_NG4: Percent of children who went to bed without food in the last four weeks	2,223	80.7 [70.8–87.8]	80.1 [68.4–88.2]	81.3 [72.9–87.5]

BACKGROUND

Survey Overview and Rationale

Nigeria Government and U.S. Government (USG) investment programs to improve the well-being of OVC and their households have been substantial. Even so, the impact of this investment is uncertain and questions remain regarding "what works" in improving OVC well-being (PEPFAR, 2012). To address the concern, in 2014 PEPFAR launched its new MER guidance, with a set of **outcome indicators for OVC programs**. These indicators reflect internationally accepted developmental milestones and collectively measure holistic well-being for children and their families over time. These outcome indicators are designated as "essential survey indicators," which means that PEPFAR considers them critical to tracking progress within PEPFAR-funded projects and so has made them a reporting requirement. A standardized survey methodology and tools have been developed to collect these data in countries where PEPFAR is supporting OVC programs. PEPFAR/Nigeria has asked the MEASURE Evaluation project to conduct a survey to collect these indicators from five OVC projects. Conducting the MER OVC essential indicators survey supports the purposes of USAID's evaluation policy for accountability and promoting learning to generate greater positive change. Also, the MER OVC Essential Survey Indicators' technical guidance helps missions and implementing partners (IPs) meet USAID's evaluation policy requirements, by encouraging the use of external data collectors for objectivity—unbiased measurement and reporting—and use of the best methods to generate high-quality data and credible evidence.

Purpose of the Survey

The purpose of collecting the MER OVC Essential Survey Indicators is to obtain a snapshot of program outcomes at a point in time and assess changes in outcomes among OVC program beneficiaries over time (a two-year period) at Round 2, in 2018. The survey is not designed to assess outcomes among children in the general population. MEASURE Evaluation conducted the OVC MER essential indicators survey in collaboration with USAID, the United States Centers for Disease Control and Prevention (CDC) and the five OVC projects.

Survey Objectives

The objective of this survey was to examine the well-being of OVC and their caregivers at one point in time through a series of nine internationally accepted indicators and four additional indicators specific to Nigeria. The survey was driven by this research question:

- What are the estimates of the 13 OVC MER essential survey indicators in a household-based, project-representative sample of OVCs ages 0–17 and caregivers ages 18+ years?

Situation of OVC in Nigeria and the National Response

According to the 2014 National Standards for Improving the Quality of Life of Vulnerable Children Report, about half of Nigeria's 140 million people are under the age of 18, and an estimated 17.5 million of these children are considered vulnerable to adversity and at risk of not fulfilling their full potential to live a safe and productive life (Federal Ministry of Women Affairs and Social Development, 2014; Tagurum, et al., 2015). Among the vulnerable children, 7.3 million are orphans, of whom 2.39 million were orphaned by the AIDS-related death of one or both parents (Center for Global Health and Development, 2009; UNICEF, 2013). In addition to HIV/AIDS, other major causes of orphanhood are road accidents, maternal mortality, and ethnoreligious conflicts (Case, Paxson, & Abieidinger, 2004).

Major challenges facing OVCs are child labor; violence against children; insufficient food; inadequate legal protection; and poor access to social, health, and education services. Girl children often face greater challenges than boys because of pervasive, harmful gender norms and practices that discriminate against them.

The Federal Ministry of Women Affairs and Social Development (FMWASD) coordinates the national response to the needs of OVC, beginning with the Rapid Assessment, Analysis and Action Planning Process (RAAAPP) and the National OVC Conference in 2004. Since that time, Nigeria has put in place the following policies, strategies, structures, and systems to respond to the challenges posed by the large numbers of OVC in the country:

- National Standards for Improving the Quality of Life of Vulnerable Children
- National Plan of Action (2006–2010) for OVC (FMWASD, 2006)
- Guidelines and Standards of Practice for OVC (defining a minimum package of services for OVC)
- National OVC M&E Framework
- OVC eligibility criteria
- OVC advocacy package
- Psychosocial training manual
- OVC unit in FMWASD
- Priority actions developed to end violence against children
- President declaring 2015 the Year of Action to end Violence against Children

PEPFAR OVC Program in Nigeria

Apart from the government at various levels, several organizations are involved in OVC work in Nigeria. They include international nongovernmental organizations (NGOs), mainly USG and Global Fund IPs, local NGOs, faith-based organizations (FBOs), and community-based organizations (CBOs). With the exception of the MTN Foundation, the contribution of the private sector has been very limited. According to the 2015 annual progress report compiled by PEPFAR/Nigeria, nearly 700,000 children orphaned by AIDS and other vulnerable children received care and support in Nigeria (PEPFAR, 2016). The PEPFAR OVC service delivery package follows the National OVC Service Standards guide (Federal Ministry of Women Affairs and Social Development, 2014). Children receive need-based and age-appropriate interventions, including support to access healthcare; HIV testing and counseling (HTC); linkages to treatment and adherence support for HIV-positive children; nutrition assessments and counseling; caregiver and community capacity building for parenting, early childhood development, and child protection; household economic strengthening; prevention interventions for older OVC; and access to education.

The PEPFAR program aims to achieve epidemic control in scale-up local government areas (LGAs) through enhancement of HIV case detection, linkage to care and treatment, and viral load assessments. Community-based OVC programs recruit referral coordinators to facilitate access and adherence to antiretroviral therapy (ART) for HIV-positive children and caregivers. Prevention messaging targets adolescent OVC—especially girls—with linkages to adolescent-friendly reproductive health services. There is a strong focus across the program on strategies to empower households and communities for better parenting and sustainable care and support to OVC. Services are delivered within the household and

community, with strong facility-community referral systems to provide HIV-positive OVC with seamless services from the health facility and within the community where they reside.

PEPFAR OVC MER Surveys in Nigeria

Out of seven USAID-funded and nine CDC-funded projects, the PEPFAR/Nigeria team selected the following five OVC projects in Nigeria to be surveyed:

1) APIN Public Health Initiatives, Ltd./Gte.
2) Association for Reproductive and Family Health (ARFH)/ Local Partners for Orphans and Vulnerable Children (LOPIN)
3) Catholic Relief Services/Sustainable Mechanism for Improving Livelihoods and Household Empowerment (CRS/SMILE)
4) The Institute of Human Virology – Nigeria (IHVN)
5) WEWE/LOPIN

Two of the IPs—APIN and IHVN—are supported by CDC, whereas WEWE, ARFH, and CRS/SMILE are supported by USAID. The selected projects are in LGAs with high HIV prevalence; the coverage of these scale-up LGAs is where intervention for OVCs will continue up to or beyond 2018. The selection criteria included diversification of U.S. agency support, project funding levels, geographic burden of HIV, and planned continued support to the beneficiary populations served by these projects for at least another two years. The three projects deliver a similar comprehensive package of OVC services based on the assessed needs of beneficiaries. Although there is some overlap in the counties served by the projects, all beneficiaries receive services from only one of the projects. The coverage of these five projects currently varies from 9,000 to more than 300,000 OVCs and their caregivers. The OVC Outcome MER Survey is expected to occur every two years; selection will consider locations where continuous OVC intervention ensures that the client/caseload will be available for the next two years, after which the survey will be repeated following the MER indicator guidance. Consideration also includes near-equal representatives of IPs funded by the two major donor agencies of the U.S. Government for OVC program in Nigeria: USAID and CDC.

Survey Implemented by MEASURE Evaluation

The PEPFAR team selected the five OVC projects mentioned above and asked MEASURE Evaluation to survey all of them; however, this report discusses only one survey: WEWE. The WEWE survey was implemented by MEASURE Evaluation in partnership with the Center for Research, Evaluation Resource and Development (CRERD) and Academy for Health Development (AHEAD), two research organizations based in Ile-Ife. MEASURE Evaluation provided overall leadership for the survey and was responsible to USAID for all activities undertaken by the activity. The MEASURE Evaluation activity lead held overall technical, management, and supervisory responsibility for the survey, including developing the survey protocol, quality assurance, analysis, technical writing, and dissemination of findings. The activity lead ensured that the survey was conducted in accordance with the protocol and ensured the safety and protection of survey participants.

The CRERD/AHEAD consortium was responsible for all data collection activities, including co-facilitating with MEASURE Evaluation the training for data collectors, piloting final tools and consent forms, developing the field manuals and data quality procedures, developing a data collection tracking database, developing the electronic data collection scripts in Open Data Kit, data collection in the field,

data cleaning, analyses, and report writing. CRERD/AHEAD ensured that the team performed survey activities to the highest quality standards and on schedule.

WEWE project staff played supportive roles in making sure that the survey was completed successfully. The survey activities were coordinated by the MER survey coordinator; a consultant under MEASURE Evaluation. The MER survey coordinator served as the liaison officer among all partners during the survey.

How the Results Will Be Used

The data obtained from the findings in these MER surveys will be used in combination with input/output data by USAID/Nigeria, to support program planning, targeting, resource allocation, and implementation. For example, if the MER OVC Essential Survey Indicator data show that only a small percentage of beneficiary children appear to be progressing across education indicators, USAID/Nigeria may decide to focus more of its resources on education-related interventions. Likewise, if a project has invested significantly in education-related interventions yet cannot report a positive change over time in the percentage of beneficiary children progressing in school, the project may consider revising its intervention strategy for education. The Office of the Global AIDS Coordinator (OGAC) will synthesize data to tell Congress how OVC programs are making a difference to children globally. For example, these Essential Survey Indicator data will be able to demonstrate improvements in child well-being and identify in which outcome areas our programs are making gains or are struggling. Additionally, results from these surveys will be triangulated with findings from OVC project evaluations, thus strengthening the evidence base for USG-funded OVC programs.

PEPFAR requires that data for the MER essential indicator survey be collected every two years so progress can be tracked over time. This report, however, covers data at only one point in time—that is, the first round of data for these indicators in Nigeria, and specifically on WEWE.

WEWE Project

This report presents the findings from the survey of OVC MER essential indicators from one of the five selected IPs—WEWE/LOPIN.

WEWE/LOPIN is a Nigeria not-for-profit organization. It has been implementing a US$11 million USAID- and PEPFAR-supported project—LOPIN-2—in Region 2 (Imo, Anambra, Akwa-Ibom, and Rivers States) since July 17, 2014. LOPIN-2 activities began in Imo and Anambra States in 2014 and expanded to Rivers and Akwa-Ibom in October 2015.

The LOPIN-2 project in Akwa-Ibom State operates in three LGAs—Oron, Uyo, and Ikot-Ekpene—and offers the following services:

- **Health support:** Health education; WASH; community HIV services; HIV testing and counseling (HTC); HIV care and support; completion of immunization for under five; and health referrals, e.g., ART and cluster of differentiation 4 (CD4) count.
- **Nutrition support:** Nutrition education and counseling, nutrition assessments using mid-upper arm circumference (MUAC) and other anthropometric tools, sourcing and providing food for households in destitution, nutrition referral for malnourished children, and providing food and nutrition supplements for these children.

- **Shelter and care:** Advocacy for repairs of leaking roofs and dilapidated buildings, clothing support, reintegration into families, and referrals.
- **Education and training support:** Advocacy for school enrollment/re-enrollment, school visits; school performance assessment; and advocacy for providing school materials, such as books, for highly vulnerable families (families in destitution). Informal education is also provided to older vulnerable children who do not wish to go back to school to learn a trade or handicraft. This education is done through private partnerships with artisans and other professionals.
- **Psychosocial support:** Counseling support, recreational activities through the Nigeria Kids Club, and building life skills through adolescent club meetings and caregivers forums.
- **Protection:** Facilitation of registration of births/provision of birth certificates and referrals for legal services, encouraging acquisition of death certificate for deceased spouses and will writing, referrals of gender-based violence (GBV) cases to appropriate authorities, and dissemination of Nigeria's Child Rights Act at the community level.
- **Household economic strengthening:** Establishment of village savings and loans associations (VSLAs), vocational training for older vulnerable children, income-generation activities (IGAs) training, skills acquisition, and financial education. Material support is also provided to identified caregivers to enhance their businesses and improve households' income. This support in turn helps them provide needed care and support to their households and children.

STUDY DESIGN AND METHODS

Design Overview of the WEWE Survey

The survey design used a descriptive cross-sectional approach, assessing the well-being of vulnerable households, caregivers, and children enrolled in the WEWE project as one of the five OVC PEPFAR projects. These projects are diverse in the types of services provided and existence of previous projects.

We sought information about two beneficiary groups of the WEWE project:

1) Primary caregivers ages 18+ years
2) Children ages 0–17 years (we directed questions to the primary caregiver)

We sampled beneficiaries from WEWE's five CBOs that work in the scale-up LGAs of Akwa-Ibom State, with the expectation that the project will still be active in them by the time the follow-up survey is scheduled for 2018, providing the ability to assess changes in indicators over time.

Outcome Measures

This survey obtained information on (1) socioeconomic characteristics of the household; (2) outcome measures on the caregiver's and OVC well-being (caregiver's knowledge of child's HIV status, possession of a birth certificate for child, child's school attendance, progression in school, if receiving project services); (3) attitudes of the caregiver toward physical punishment; and (4) stimulating activities with children below age five, etc. We assessed all children ages 6 to 59 months from the sampled households for malnutrition using the MUAC measurement.

Table 2. PEPFAR MER Essential Survey Indicators for OVC programs

Number	Outcome indicator	Rationale for inclusion	WEWE Program component that contributes to the indicator
OVC_HIVST	Percent of children 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.	Community HIV services HTC; HIV care and support; and health referrals, e.g., ART, CD4 count, etc.
OVC_NUT	Percent of children <5 years of age who are undernourished *For this indicator, the interviewer will obtain measurement of MUAC for children ages 6–59 months. It is the only indicator whose measurement requires direct interaction with a child.*	Nutrition is a critical factor in reducing infant mortality and builds a strong foundation for a child's health, growth, and development.	Nutrition education and counseling, nutrition assessment using MUAC and other anthropometric tools, providing food for households in destitution, nutrition referrals for malnourished children, and providing food and nutrition supplements for those children
OVC_SICK	Percent of children 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.	Health education; HIV care and support; health referrals—e.g., ART, CD4 count
OVC_BCERT	Percent of children who have a birth certificate	Ensuring children 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 as they grow older.	Providing birth certificates and referrals for legal services
OVC_SCHATT	Percent of children regularly attending school	In addition to being important in its own right, efforts to keep children in school have positive impacts on HIV prevention.	Advocate for school enrollment/ re-enrollment, school visits, school performance assessments, providing school materials, and referrals
OVC_PRGS	Percent of children 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.	Advocate for school enrollment/ re-enrollment, school visits, school performance assessments, providing school materials, and referrals
OVC_STIM	Percent of children <5 years of age who recently engaged in stimulating activities with any household	Early childhood cognitive, social, and physical stimulation is essential for promotion of long-term learning, growth, and health.	Counseling support, recreational activities through the Nigeria Kids Club, building life skills through adolescent club

Number	Outcome indicator	Rationale for inclusion	WEWE Program component that contributes to the indicator
	member > 15 years of age		meetings and caregivers forums
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.	Training of caregivers on better parenting skills, consistent caregiver forum meetings
OVC_MONEY	Percent of households able to access money to pay for unexpected household expenses	The key goal of household economic strengthening programs is to improve households' resiliency to economic shocks, such as unexpected household expenses. Child well-being is assumed to be affected by the household's resiliency in the face of economic shocks.	Village savings contribution associations (VSCA), vocational training for older vulnerable children, IGA training, skill acquisition and financial education, referrals to lending institutions, e.g., LAPO and other microfinance banks
OVC_NG1	Percent of households that have attained food security in the last three months	Food insecurity has a negative impact on the overall nutritional and health status of those infected and affected by HIV and AIDS, and people living with HIV often say that food is the greatest need for themselves and their families. According to the USAID Multi-Sectoral Nutrition Strategy 2014–2025, there are intrinsic linkages between HIV, food insecurity, and malnutrition.	Food production from home gardening and improved farming practices through providing seedlings and pesticides
OVC_NG2	Proportion of households (with children and caregivers) with adequate shelter	An adequate dwelling unit provides protection for orphans and vulnerable children against the weather and gives them a sense of membership in their family. Children and young people should have a safe and conducive shelter to live in.	Advocate for repairs of leaking roofs and dilapidated buildings
OVC_NG3	Percent of children having access to basic healthcare services	Access to basic healthcare service is important for children, especially vulnerable ones. The human right to health means states that everyone has the right to the highest attainable standard of physical and mental health, which includes access to all medical services (WHO, 2008).	Health referrals and collaboration with other health service providers

Number	Outcome indicator	Rationale for inclusion	WEWE Program component that contributes to the indicator
OVC_NG4	Percent of children who went to bed without food in the last four weeks	It is important for children, especially vulnerable children, to have food.	Providing food for households in destitution and food production from home gardening

Survey Instruments

The survey used the *MER Questionnaire* developed under the MEASURE Evaluation project (Chapman, Foreit, Hickmann, & Parker, 2013). The questionnaire included three key sections: caregiver, children ages 0–4, and children ages 5–17 years. All survey questions (except the MUAC measurement) were directed to caregivers, who were asked to respond to questions about themselves, the household, and the children in the household under their care. Although most of the questions were asked about all children, those related to nutrition and stimulating activities were asked about children ages 0–4 years. Questions related to education were asked about children ages 5–17. The questionnaire and the consent forms used during the WEWE survey were created in English but also translated into Ibibio, the language commonly spoken in Akwa-Ibom. English and Ibibio were the two languages used to administer the interviews. Translations aimed to maintain the core meaning of the questions rather than translating them verbatim. The survey tools (questionnaire and consent forms) were pretested for two days (November 4–5) in Lagos with a small group of 10 team supervisors to check the translations as well as the flow. In addition, we also pretested the English and translated versions of the questionnaires for accuracy, acceptability, and feasibility. Due to the pretesting, some questions were fine tuned for clarity and accuracy (see bolded example below).

Before pretest:

3a	Have you personally ever received services or participated in activities from [insert name of OVC CBO]? By this I mean, have you ever been visited by a community worker, or have you ever participated in any activities organized by this organization, such as educational support, food and nutritional support, health care, shelter and care, etc.?	Yes 1 No 2

Revision after pretest:

3a	Have you personally ever received services or participated in activities from [insert name of OVC CBO]? By this I mean, have you ever been visited by a community worker from [insert name **of OVC CBO**], or have you ever participated in any activities organized by [insert name of **OVC CBO**] such as: **Educational Support** **1) Yes 2) No** **Food and Nutritional Support** **1) Yes 2) No** **Health Care** **1) Yes 2) No** **Shelter and Care** **1) Yes 2) No**	

Other revisions included the addition of some sociodemographic variables and a question on where the caregiver sought treatment the last time the child was sick (**see Appendix A, QA9b**).

We did a second pretest in the field as part of the data collector training in Unguwar Koro of the Dutsen Alhaji ward of the Bwari Area Council in Abuja on Thursday, November 17, 2016. The aim was to test the procedures and competence of field teams in collecting the data and taking the MUAC measurements. The pretest also involved testing for instrument comprehension. This second pretest comprised 29 interviews among beneficiary households that had not been selected as part of the survey sample. Participants in the pretest were told that they were participating in a pretest. We did not include the data collected from these households as part of the survey.

After the pretest, we updated the survey tools, particularly on the anthropometric measure (MUAC), to accommodate options for cases in which OVC are not available or the caregiver refused to allow a child to be measured. Also, we discussed precautionary steps during a meeting held in collaboration with CRERD/AHEAD staff, MEASURE Evaluation, and the IPs. In the meeting, we decided that the field staff should interview caregivers of such children but not finalize the questionnaire, pending when the eligible children would be available for the measurement. Interviewers were asked to inquire from the caregivers as to when the children would be at home to make callback visits for taking the MUAC readings. Although we slightly adjusted the wording of questions to align with Nigerian discourse and enhance clarity, we did not change the recall periods. The interviews lasted an average of 45 minutes, with a minimum of 20 and a maximum of 60 minutes, depending on the number of 0- to 17-year-olds in the households. We discussed and addressed feedback and issues emerging from the pretesting exercise, including any proposed changes to the questionnaire and translation issues addressed during the pretest feedback session.

Sampling Frame

The survey sampling frame comprised all households located in the scale-up LGAs in Akwa-Ibom State that were registered as active beneficiaries of the WEWE project. The scale-up LGAs cover 34 communities served by the WEWE project, all of which were included in the sampling frame as clusters. The initial assessment, done through community trace and verify, found that WEWE beneficiary databases generally had not been updated for both paper- and electronic-based systems. Some people were still in the IP's database of active beneficiaries even though they had relocated or dropped off and were lost to follow-up.

Based on the large number of discrepancies found in the initial assessment of the beneficiary database, the survey team decided to reconstruct the household beneficiary listing from records maintained by the local CBOs rather than from the WEWE beneficiary listing. The survey team worked directly with the local CBO IPs and their community volunteers in the 34 communities (clusters) to construct an up-to-date list of beneficiary households in the communities within the four scale-up LGAs. Community volunteers provided the beneficiary lists that they maintained in notebooks or on sheets of paper printed by the office. Alongside the community volunteers, we verbally verified each household on their lists. There was no photocopy machine in the community during fieldwork, so the staff worked directly with the notebooks or paper lists kept by the volunteers. First, they re-numbered these lists to skip the non-active beneficiaries. We requested the assistance of WEWE's community volunteers who worked in the selected communities to systematically verify the presence of every caregiver on the beneficiary list. This assistance meant that the survey was conducted on an up-to-date sampling frame. It also meant that

interviews started immediately after the random selection of eligible households, not with a "cold" sample frame.

It was rare to have more than one community volunteer operating in a community; when it happened, however, the supervisor and data auditor asked all volunteers to bring in their beneficiary lists. They then consecutively re-numbered all beneficiaries in all lists in pencil very lightly on the side of each notebook, beginning with the first one, until they finished. This updated sampling frame included 2,705 households from 34 communities (Table 3).

Selection of Households

A sample size of 646 beneficiary households was chosen based on calculations assuming 80 percent power to detect a 10 percent change in indicator prevalence from survey Round One to survey Round Two (given that Round One prevalence was assumed to be near 50%), with 95 percent confidence. (See **sample size calculation formula in Appendix D.)** To determine the number of households to randomly select in each community, we divided the total sample size for WEWE (646 beneficiary households) by the number of scale-up communities they serve (34) to determine the average number of households per community. Therefore, we aimed to select an average of 19 verified beneficiary households per community to interview.

After the systematic verification of households/caregivers, the data auditor and supervisors then visited each selected community and randomly selected 19 households from each volunteer's list of beneficiaries, using the random number generator application in the Android phone. It is important that a neutral person such as the data auditor do the random selection because he/she does not conduct the actual data collection. Once selected, the data auditor keeps a copy of the names of selected households to facilitate easy tracking when the data from the selected household are uploaded to the server. We instructed the supervisor that any data not coming from a selected household would be rejected.

The supervisor and the data auditor were jointly responsible for making and documenting the selections, which in turn were verified by a quality assurance team. At the community level, the probability of selecting a beneficiary household was 1/the number of verified beneficiary households. The response rate for households/caregivers was 97.4 percent (see Table 3).

Table 3. Summary of sampling plan information for WEWE

Total number of communities[1] (clusters) under scale-up areas	34
Number of communities (clusters) randomly selected	34
Total number of households verified and listed from the selected communities (clusters)	2,705
Target number of households planned to be randomly selected per community (cluster)	19
Total number of households randomly selected	646
Total number of caregivers not available after three attempts	2
Number of caregivers who refused an interview	6
Number of households with no children under age 18	9
Number of households with completed interviews in the cleaned data set	629
Survey household/caregiver response rate	97.4%

[1]A community is the primary sampling unit defined on the basis of the area where a CBO provides services within an LGA.

Fieldwork and Quality Assurance Procedures

The residency training for the fieldwork in the Southern states took place in Lagos from November 2–5, 2016. It was implemented from November 28–December 20, 2016. Because of the time lapse between training and fieldwork, a one-day refresher training was conducted among field workers in the Southern states. For this survey, 14 interviewers, two supervisors, two data auditors, and one quality assurance officer participated in the fieldwork exercise. Each supervisor managed a team of approximately seven data collectors, with assistance from a data auditor. They strictly followed the research protocol and guideline strictly.

The field workers collected data using an Android phone with the SurveyCTO application. The smartphones were pre-programmed with questionnaires wirelessly linked to a cloud server. They transmitted data daily to the cloud server, which was based at CRERD headquarters. The smartphones were pre-programmed to enforce data completeness, correct skips of questions, ensure logical and consistent entries of data elements, and automatically check the total number of people ages 0–17 in the households.

Supervisors and data auditors went to the field to flag off the fieldwork. At each selected community, they met with the community volunteer and went over the list of selected households to verify which beneficiary households were present for interviews on that day. From the list of selected households, the community volunteers assisted in identifying each, after which they stepped back to allow the interviewer to conduct the interview in private with the caregiver. Supervisors and data auditors checked the data quality. Although the supervisor checked the work of the data collectors in the field to ensure the right caregivers had been interviewed, the role of the data auditor was critical for ensuring the quality of the downloaded data. Each data auditor downloaded the survey data from the cloud server daily for

verification and cleaning. The quality assurance officers were in the field to ensure strict compliance with the research protocol. They followed the survey protocol and guidelines strictly.

Interview times were checked and any interviews that took less than 20 minutes were flagged for verification. An individual data collector's work was also checked for typing errors and, if possible, for flipping of age numbers—for example, entering 25 as 52. When errors were identified, data collectors were called by phone from the office either to correct them on the spot or return to the household to redo an interview, if necessary. At the end of the survey, the final data set was exported in CSV format for analysis.

Analysis Methods

All essential survey indicator outcome measures are expressed as proportions of appropriate denominators and disaggregated by sex and age in accord with PEPFAR OVC essential survey indicator reporting requirements. We used chi-square statistics to test for independence between outcome indicators and beneficiaries' gender and used t-statistics for continuous variables like age. We used sample weights in the analysis to account for differential probabilities of selection into the sample because the sampling did not use a probability proportional to size procedure, which would have produced self-weighting data. We calculated all estimates as unweighted and weighted, and calculated 95 percent confidence intervals on the weighted data.

Data were downloaded in a CSV file format from the server database to CRERD/AHEAD headquarters desktops. Data were analyzed using STATA V14.0. The data elements were realigned and then reshaped into an easy-to-analyze format. For example, for each caregiver, all the data from all children under her/his care were linked to his/her data. Variable names for the data about the children were renamed for uniformity across the different age categories (0–4, 5–9, 10–17).

RESULTS

Basic Characteristics of the Study Population

Of the 629 randomly selected caregivers in Akwa Ibom State invited to participate in this survey, 612 responded, yielding a 97.4 percent response rate. The mean age was 37 years (**SD=11.1)**, with slightly more than 52 percent of caregivers ages 31–50 years. (See Table 4.) The survey sample consisted of 515 females (82%) and 114 (18%) males. Almost half of sampled caregivers (41%) had at least a secondary education, whereas 51.9 percent had primary education, and 7.9 percent had no education.

Table 4. Demographic characteristics of primary caregivers in the study population

Variable	All Primary Caregivers (N=629)	
Mean Age (SD)	**37.0 years** (± 11.1)	
	Unweighted (n) %	**Weighted %**
Age Group[1]		
<18 years	(1) 0.2	0.3
18–30 years	(225) 36.2	34.4
31–50 years	(32) 52.1	51.9
51+ years	(72) 11.6	12.5
Sex		
Male	(114) 18.1	18.0
Female	(515) 81.9	82.0
Education		
No Education	(50) 8.0	7.9
Primary	(319) 50.7	49.0
Secondary or Higher	(260) 41.3	43.1

[1]Age is missing for 12 records; therefore, the denominator used to calculate proportions for Age Group is 586.

A total of 2,223 children were listed in the 629 households, translating to an average of about four children per household/caregiver. The sex and age distribution of these children is given in Table 5 below. Overall, about 22 percent of the children were below the age of five, whereas about 36 percent were between ages of 5–9, and 41 percent were ages 10–17.

Table 5. Sex and age of children ages 0–17 years under the care of primary caregivers in the study population

Variable	All Children (N=2,223)		Male Children (N=1,087)		Female Children (N=1,136)	
Mean Age (SD)	8.4 years (± 4.6)		8.3 years (±4.5)		8.5 years (±4.7)	
Age Group	**Unweighted (n) %**	**Weighted %**	**Unweighted (n) %**	**Weighted %**	**Unweighted (n) %**	**Weighted %**
0–5 months	(22) 1.0	1.0	(11) 1.0	1.0	(11) 1.0	0.9
6–11 months	(19) 0.9	1.0	(10) 0.9	1.2	(9) 0.8	0.9
1–4 years	(465) 20.9	20.3	(220) 20.2	19.3	(245) 21.6	21.2
0–4 years	(510) 22.8	22.3	(241) 22.1	21.5	(265) 23.4	23.0
5–9 years	(796) 35.8	35.7	(403) 37.1	37.7	(393) 34.6	33.8
10–14 years	(634) 28.5	28.9	(317) 29.2	29.2	(317) 27.9	28.6
15–17 years	(287) 12.9	13.2	(126) 11.6	11.7	(161) 14.2	14.6

Participation and Services Received from WEWE

In the MER survey, each selected beneficiary household had one caregiver designated as respondent. We asked caregivers about services their households had received from WEWE—specifically, about nutrition education and counseling, Measuring of MUAC for children between the ages of six months to four years, providing food and nutrition supplements for malnourished children, and referrals of malnourished children to specific special centers. Table 6 shows 58 percent of caregivers reported that their households had received services from the WEWE project.

Table 6. Percentage of caregivers according to whether their household has ever received services from WEWE

All Caregivers (N=629)				
Variable	**Unweighted**	**Weighted**	**95% Confidence Interval**	
	(n) %	**%**	**Lower Limit**	**Upper Limit**
Ever Received Service/Support?				
Never received any support	(242) 38.5	42.1	30.0	55.1
Received at least one support	(387) 61.5	58.0	44.9	70.0

Of those households that had received services, nutrition education and counseling and providing food supplements services were the most prevalent form of support, reported by 90 percent and 62 percent, respectively. Table 7 shows that 36 percent of caregivers reported that one or more malnourished children under their care had received referral to special centers.

Table 7. Percent of caregivers whose household has ever received services from WEWE, by type of service

All Caregivers (N=387)				
Variable	**Unweighted**	**Weighted**	**Confidence Interval**	
	(n) %	**%**	**Lower Limit**	**Upper Limit**
Services of CBO[1]				
Nutrition education and counseling	(348) 89.9	90.2	84.6	93.9
Measuring of MUAC for children between the ages of six months to four years	(229) 59.2	59.9	47.4	71.3
Providing food and nutrition supplements for malnourished children	(243) 62.8	61.7	49.7	72.5
Referral of malnourished children to special centers	(131) 33.9	35.8	24.8	48.6

[1]Multiple responses allowed.

Table 8 presents the percentage distribution of caregivers who indicated how many types of services their households had ever received. Although all 629 households were registered with the WEWE project, 22 percent had benefitted from one type of activity, 25 percent from two, 15 percent from three, and 31 percent had received all four highlighted activities. The average number of services received was two. The majority of those whose households receiving these activities had been doing so for less than one year (73%), with about a quarter reporting that their household had been receiving the service for one to two years (27%)

Table 8. Percent of caregivers by number of services their household had received from WEWE

All Caregivers (N = 387)				
Variable	**Unweighted**	**Weighted**	**Confidence Interval**	
	(n) %	**%**	**Lower Limit**	**Upper Limit**
Services of CBO				
1 service	(107) 27.7	22.2	19.7	41.0
2 services	(106) 27.4	24.6	17.8	32.8
3 services	(64) 16.5	15.5	10.5	22.4
4 services	(110) 28.4	30.7	19.6	44.5
Mean number of services (SD)	2.46 (1.17)	2.48 (1.20)		
Time since households started receiving services from CBO (among those who reported having received at least one type service)				
< 1 year	(290) 74.9	73.2	62.0	82.1
1–2 years	(94) 24.3	26.5	17.7	37.8
> 2 years	(3) 0.8	0.3	0.1	1.0

Estimates of Outcome Indicators

The outcome measures presented in this section are based on reported responses from the caregivers when asked a series of questions (see questionnaire in Appendix A). A caregiver was then asked about the children ages 0–17 under her/his care. Based on this information, we present nine Essential Survey Indicators and four Nigerian-specific measures, disaggregated by age and sex in accordance with PEPFAR reporting guidance.

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

For every child under a caregiver's care, we asked whether the child had ever been tested for HIV, whether they had been tested in the past six months, and whether the caregiver knew the results of the HIV test (Table 9). Caregivers reported knowledge of HIV status for only 53 percent of the 2,223 children under their care. Knowledge of HIV status was higher for female children than male children (55% vs. 51%). We performed a chi-square test of independence to examine the relationship between a caregiver knowing the HIV status of the child and the child's sex. The relationship between these variables was not significant. Table 9 indicates that among all children, regardless of sex, caregivers'

knowledge about their HIV status was highest among 15- to 17-year-olds. Other details are presented in Table 9.

Table 9. Core indicator: Percent of children (aged 0–17 years) whose primary caregiver knows the child's HIV status

Variable	All Children (N=2,223)				
	Unweighted		Weighted	Confidence Interval	
	N	(n) %	%	Lower Limit	Upper Limit
Age Group					
0–4 years	506	(226) 44.7	52.2	43.1	61.2
5–9 years	796	(355) 44.6	50.4	41.1	59.7
10–14 years	634	(294) 46.4	53.3	41.5	64.7
15–17 years	287	(155) 54.0	59.5	46.3	71.5
Sex of Child					
Male	1087	(550) 48.4	50.8	41.4	60.1
Female	1136	(480) 44.2	54.9	44.9	64.5
All Children	**2,223**	**(1,030) 46.3**	**52.9**	**43.3**	**62.2**
	Male Children (N=1,087)				
	Unweighted		Weighted	Confidence Interval	
	N	(n) %	%	Lower Limit	Upper Limit
Age Group					
0–4 years	241	(100) 41.5	48.8	37.3	60.5
5–9 years	403	(175) 43.40	50.8	41.1	60.4
10–14 years	317	(141) 44.5	51.1	39.2	62.8
15–17 years	126	(64) 50.8	53.6	37.4	69.0
All Male Children	**1,087**	**(480) 44.2**	**50.8**	**41.4**	**58.6**
	Female Children (N=1,136)				
	Unweighted		Weighted	Confidence Interval	
	N	(n) %	%	Lower Limit	Upper Limit
Age Group					
0–4 years	265	(126) 47.6	55.4	46.2	64.2
5–9 years	393	(180) 45.8	50.0	40.4	59.7
10–14 years	317	(153) 48.3	55.6	42.9	67.6
15–17 years	161	(91) 56.5	64.2	49.9	76.2
All Female Children	**1,136**	**(550) 48.4**	**54.9**	**44.9**	**64.5**

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

According to the OVC MER guidance, a child is considered undernourished if their left MUAC is below 12.5 cm. Table 10 presents the distribution of children below age five (6–59 months of age) along with the proportion of those among them who were undernourished. Overall, only 1.4 percent of 481 children below the age of five were undernourished, which represents 1.1 percent and 1.6 percent among the male and female children, respectively. Other details as presented in Table 10.

Table 10. Core indicator: Percent of children (aged 6–59 months) who are undernourished

Variable	All Children[1] (N=481)				
	Unweighted		Weighted	Confidence Interval	
	N	(n) %	%	Lower Limit	Upper Limit
Age Group					
6–11 months	19	(0) 0.0	0	-	-
12–59 months	462	(6) 1.3	1.5	0.7	3.2
Sex of Child					
Male	253	(4) 1.6	1.1	0.2	5.6
Female	228	(2) 0.9	1.6	0.6	4.3
All Children < 5 years	**481**	**(6) 1.3**	**1.4**	**0.6**	**3.1**
	Male Children (N=228)				
	Unweighted		Weighted	Confidence Interval	
	N	(n) %	%	Lower Limit	Upper Limit
Age Group					
6–11 months	10	(0) 0.0	0		-
12–59 months	218	(2) 0.9	1.2	0.2	5.8
All Male Children	**228**	**(2) 0.9**	**1.1**	**0.2**	**5.7**
	Female Children (N=253)				
	Unweighted		Weighted	Confidence Interval	
	N	(n) %	%	Lower Limit	Upper Limit
Age Group					
6–11 months	9	(0) 0.0	0		
12–59 months	244	(4) 1.6	1.7	0.6	4.5
All Female Children	**253**	**(4) 1.6**	**1.6**	**0.6**	**4.3**

[1] Of the 484 children ages six months to four years, MUAC measurements were taken for 481 (99.4%) children. Those whose MUAC measurements were taken are used in the denominator for this indicator.

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

Children unable to participate in daily activities may need immediate medical care and could be in an especially vulnerable state. For each child between ages 0–17 years included in this survey, we asked their primary caregivers whether the child had been too sick to participate in daily activities within the two weeks before the survey. Caregivers reported that 36 percent of children were too sick to participate in daily activities at some time during the two weeks before the survey (see Table 11). Sickness within the past two weeks was more prevalent among children ages 0–4 years compared to other age groups, and lowest among children ages five to nine years ($X^2_{(3, N=2223)}$**=6.41, p<0.001)**. Disaggregation by sex shows no difference between male or female children ($X^2_{(1, N=2223)}$**=0.17, p=0.68)**. Table 11 presents the details.

Table 11. Core indicator: Percent of children (aged 0–17 years) too sick to participate in daily activities

Variable	All Children (N=2,223)				
	Unweighted		Weighted	Confidence Interval	
	N	(n) %	%	Lower Limit	Upper Limit
Age Group					
0–4 years	–06	(229) 45.3	44.1	37.2	51.3
5–9 years	796	(256) 32.2	29.6	23.8	36.3
10–14 years	634	(228) 36.0	37.6	31.8	43.8
15–17 years	287	(95) 33.1	32.2	24.8	40.7
Sex of Child					
Male	1087	(386) 35.5	35.1	30.5	40.2
Female	1136	(422) 37.2	35.8	30.4	41.7
All Children	**2,223**	**(808) 36.4**	**35.5**	**30.7**	**40.7**
	Male Children (N=1,087)				
	Unweighted		Weighted	Confidence Interval	
	N	(n) %	%	Lower Limit	Upper Limit
Age Group					
0–4 years	241	(117) 48.6	49.2	40.9	57.5
5–9 years	403	(112) 27.8	25.9	20.0	33.0
10–14 years	317	(112) 35.3	37.0	29.7	45.0
15–17 years	126	(45) 35.7	34.3	23.9	46.7
All Male Children	**1,087**	(386) **35.5**	**35.1**	**30.5**	**40.2**
	Female Children (N=1,136)				
	Unweighted		Weighted	Confidence Interval	
	N	(n) %	%	Lower Limit	Upper Limit
Age Group					
0–4 years	265	(112) 42.3	39.5	30.8	48.9
5–9 years	393	(144) 36.6	33.7	26.5	41.6
10–14 years	317	(116) 36.6	38.1	32.3	44.3
15–17 years	161	(50) 31.1	30.6	24.3	37.8
All Female Children	**1,136**	**(422) 37.2**	**35.8**	**30.4**	**41.7**

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

One key PEPFAR indicator for OVC programming is the number of children in possession of a birth certificate. Overall, about 52 percent of children in beneficiary households were reported to have been issued a birth certificate, with roughly the same proportion of more than half across both age group and sex of child (**see Table B3 in Appendix B**). However, when asked to show it, almost one-third (31%) of caregivers initially reporting ownership of a birth certificate either could not produce one or presented the data collectors with documents that were not birth certificates for the children in their care. (**See Table B2 in Appendix B.**)

Tables 12 presents the distribution of children who had birth certificates that the interviewers verified. Overall, only about 20 percent of children were reported to have been issued birth certificates that data collectors verified. This finding shows almost the same proportion among male and female children. Children ages 15–17 had the lowest percentage of verified birth certificates; the highest (23%) was found among children ages 0–4 years.

Table 12. Core indicator: Percent of children (aged 0–17 years) who have a birth certificate that was verified

Variable	All Children (N=2,223)				
	Unweighted		Weighted	Confidence Interval	
	N	(n) %	%	Lower Limit	Upper Limit
Age Group					
0–4 years	506	(102) 20.2	22.6	15.5	31.8
5–9 years	796	(153) 19.2	20.7	14.9	28.0
10–14 years	634	(114) 18.0	20.3	13.5	29.4
15–17 years	287	(41) 14.3	16.1	11.1	22.9
Sex of Child					
Male	1,087	(193) 17.8	20.4	14.8	27.4
Female	1,136	(217) 19.1	20.5	15.0	27.4
All Children	**2,223**	**(410) 18.4**	**20.4**	**15.1**	**27.1**
	Male Children (N=1,087)				
	Unweighted		**Weighted**	**Confidence Interval**	
	N	**(n) %**	**%**	**Lower Limit**	**Upper Limit**
Age Group					
0–4 years	241	(42) 17.4	18.3	12.1	26.6
5–9 years	403	(77) 19.1	21.2	14.3	30.3
10–14 years	317	(58) 18.3	21.6	14.2	31.5
15–17 years	126	(16) 12.7	18.2	11.1	28.7
All Male Children	**1,087**	**(193) 17.8**	**20.4**	**14.8**	**27.4**
	Female Children (N=1,136)				
	Unweighted		**Weighted**	**Confidence Interval**	
	N	**(n) %**	**%**	**Lower Limit**	**Upper Limit**
Age Group					
0–4 years	265	(60) 22.6	26.5	16.9	39.0

5–9 years	393	(76) 19.3	20.2	15.3	26.6
10–14 years	317	(56) 17.7	19.0	11.5	29.8
15–17 years	161	(25) 15.5	14.5	8.0	24.9
All Female Children	**1,336**	**(217) 19.1**	**20.5**	**15.0**	**27.4**

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

In Nigeria, children usually begin grade school at age five. In the survey, to generate data on this indicator, data collectors asked primary caregivers two questions regarding school attendance of children ages 5–17 years under their care. First, they asked if the child currently was enrolled in school. Second, for those children enrolled, they asked if there was any day in the past school week that a child had missed school for any reason. Table 13 presents the results of the combination of the two questions related to school attendance. Overall, 59 percent of school-age children (5- to 17-year-olds) in the WEWE communities were reported as currently enrolled in school. The proportion was similar for boys and girls. Relatively fewer children ages 10–14 years were reported to be attending school regularly (56%) compared to younger or older children. (See Table B4 in Appendix B for details.)

Table 13. Core indicator: Percent of children (aged 5–17 years) regularly attending school

Variable	All Children Ages 5–17 Enrolled (N=1,506)				
	Unweighted		Weighted	Confidence Interval	
	N	(n) %	%	Lower Limit	Upper Limit
Age Group					
5–9 years	739	(441) 59.7	60.1	53.2	66.7
10–14 years	567	(320) 56.4	55.9	46.6	64.9
15–17 years	200	(118) 59.0	60.8	51.5	65.4
Sex of Child					
Male	736	(421) 57.2	58.4	50.7	65.8
Female	770	(458) 59.5	58.9	51.5	65.8
All Children 5–17 years	**1,506**	**(879) 58.4**	**58.6**	**51.6**	**65.4**
	Male Children Ages 5–17 Years (N=736)				
	Unweighted		Weighted	Confidence Interval	
	N	(n) %	%	Lower Limit	Upper Limit
Age Group					
5–9 years	372	(213) 57.3	58.6	49.6	67.0
10–14 years	278	(162) 58.3	58.2	48.5	67.3
15–17 years	86	(46) 53.5	58.3	42.2	72.7
All Males 5–17 years	**736**	**(421) 57.2**	**58.4**	**50.7**	**65.8**
	Female Children Ages 5–17 Years (N=770)				
	Unweighted		Weighted	Confidence Interval	
	N	(n) %	%	Lower Limit	Upper Limit

Age Group					
5–9 years	367	(228) 62.1	61.8	55.8	67.6
10–14 years	289	(158) 54.7	53.8	42.8	64.4
15–17 years	114	(72) 63.2	62.7	52.9	71.6
All Females 5–17 years	**770**	**(458) 59.5**	**58.9**	**51.5**	**65.8**

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

This indicator is a composite one, measured by a series of four successive questions related to school enrollment and grade in school at the time of the survey. These questions include school enrollment and grade attended at the time of the survey, and school enrollment and grade attended in the previous school year. The indicator requires looking at all children ages 5–17 years who caregivers report as being in a more advanced grade level at the time of the survey compared to the previous school year; the denominator is the number of children surveyed who were enrolled the previous academic year, divided by those enrolled in school during the most recent academic year. Table 14 presents the results of this composite indicator, disaggregated by age and sex.

Overall, of the 1,563 children enrolled the previous year, 92 percent progressed to a higher class/grade, with the highest proportion of progression reported for 10- to 14-year-olds (96%), followed by 15- to 17-year olds **($X^2_{(2, N=1563)}=26.77, p<0.01$)**. Across gender, 94 percent of the male children and 95 percent of female children progressed to an upper class/grade during the last academic year, though the difference between boys and girls in class progression is not statistically significant (**$X^2_{(1, N=1563)}=0.39, p=0.54$).**

Table 14. Core indicator: Percent of children (aged 5–17 years) who progressed in school during the last year[1]

Variable	All Children (N= 1,563)				
	Unweighted		Weighted	Confidence Interval	
	N	(n) %	%	Lower Limit	Upper Limit
Age Group					
5–9 years	730	(625) 85.6	86.4	82.5	89.5
10–14 years	594	(581) 97.8	97.6	95.7	98.7
15–17 years	239	(227) 95.0	95.1	89.2	97.8
Sex of Child					
Male	769	(732) 92.2	91.5	88.0	94.1
Female	794	(701) 91.2	92.5	89.3	94.7
All Children 5–17 Years	**1,563**	**(1,433) 91.7**	**92.0**	**89.3**	**94.1**
	Male Children Ages 5–17 Years (N=769)				
	Unweighted		Weighted	Confidence Interval	
	N	(n) %	%	Lower Limit	Upper Limit
Age Group					
5–9 years	367	(309) 84.2	85.9	81.3	89.4
10–14 years	298	(294) 98.7	98.0	94.3	99.2
15–17 years	104	(98) 94.2	94.0	85.1	97.7
All Males 5–17 Years	**769**	**(701) 91.2**	**91.5**	**88.9**	**94.1**
	Female Children Ages 5–17 Years (N=794)				
	Unweighted		Weighted	Confidence Interval	
	N	(n) %	%	Lower Limit	Upper Limit
Age Group					
5–9 years	363	(316) 87.1	86.9	80.6	91.5
10–14 years	296	(287) 97.0	97.3	93.7	99.0
15–17 years	135	(129) 95.6	95.9	90.3	98.3
All Females 5–17 years	**794**	**(732) 92.2**	**92.5**	**89.3**	**94.7**

[1]To be eligible for this indicator, the child must have been enrolled in school during the previous school year. Therefore, the denominator is children enrolled in the previous school year.

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

Stimulating activities enhance young children's physical and mental development. One of the OVC direct outcome indicators is "percent of children below age five years who recently engaged in stimulating activities with any household member over 15 years of age." This indicator shows whether caregivers and other adults are engaging children at a young age. Data collectors asked if anyone age 15 and above in the household had read a book or looked at pictures with the OVC, or told stories to, sang to, played with, counted with, or drew things with the child.

Tables 15a through 15c present the distribution of children under five years of age who experienced stimulating activities with any household member over 15 years of age. It indicates that among the 506 children under five, 69 percent experienced stimulating activities with a book (reading or looking at pictures), and another 69 percent were told stories. The most common stimulating activity for children was being played with (93%), followed by being sung to (89%). Generally, female children seem more likely to have engaged in any of the stimulating activities compared to male children, but this difference is not statistically significant ($X^2_{(1, N=506)}=0.33$, $p=0.57$).

Table 15a. Core indicator: Percent of children <5 who engaged in stimulating activities with any household member over 15 years of age during the last three days

Variable	All Children < 5 years (N=506)			
	Unweighted	Weighted	95% Confidence Interval	
	(n) %	%	Lower Limit	Upper Limit
Read books or looked at pictures with	(334) 66.0	69.0	59.2	77.3
Told stories to	(337) 66.6	69.4	60.2	77.3
Sang songs or lullabies to	(447) 88.3	89.3	83.1	93.4
Played with	(468) 92.5	92.8	88.3	95.6
Counted or drew things to or with	(361) 71.3	73.6	64.2	81.2
	Male Children < 5 years (N=241)			
	Unweighted	Weighted	95% Confidence Interval	
	(n) %	%	Lower Limit	Upper Limit
Read books or looked at pictures with	(154) 63.9	65.6	57.3	73.0
Told stories to	(209) 64.3	66.8	57.3	75.0
Sang songs or lullabies to	(225) 86.7	86.8	79.1	92.0
Played with	(174) 93.4	92.2	83.6	96.5
Counted or drew things to or with	(180) 72.2	73.1	65.1	79.8
	Female Children < 5 years (N=265)			
	Unweighted	Weighted	95% Confidence Interval	
	(n) %	%	Lower Limit	Upper Limit
Read books or looked at pictures with	(180) 67.9	72.1	58.2	82.7
Told stories to	(182) 68.7	71.9	61.7	80.3
Sang songs or lullabies to	(238) 89.8	91.5	84.0	95.7
Played with	(243) 91.7	93.4	88.3	96.3
Counted or drew things to or with	(187) 70.6	73.4	60.3	84.2

[1]Multiple activities allowed per child.

Table 15b shows the distribution of children below five years by number of stimulating activities in which they were engaged. Overall, more than half of the children (58%) had been engaged in all five stimulating activities, which translates to 55 percent among male children and 61 percent among female children. However, about 6 percent of male children compared to 5 percent of female children were not engaged in any stimulating activities.

Table 15b. Core indicator: Percent of children <5 years of age who engaged in a certain number of stimulating activities with any household member over 15 years of age during the last three days

Variable	All Children < 5 years (N=506)		Female Children < 5 years (N=265)		Male Children < 5 years (N=241)	
Number of Activities	Unweighted (n) %	Weighted %	Unweighted (n) %	Weighted %	Unweighted (n) %	Weighted %
No activities	(34) 6.7	5.7	(19) 7.2	5.1	(15) 6.2	6.3
1 activity	(19) 3.8	3.6	(5) 1.9	2.0	(14) 5.8	5.3
2 activities	(63) 12.5	11.3	(38) 14.3	13.5	(25) 10.4	8.8
3 activities	(43) 8.5	8.2	(17) 6.4	5.2	(26) 10.8	11.5
4 activities	(62) 12.3	13.0	(32) 12.1	12.9	(30) 12.5	13.1
5 activities	(285) 56.3	58.3	(154) 58.1	61.3	(131) 54.4	54.9

The proportion of children who were engaged in at least one stimulating activity is presented in Table 15c. Overall among the 506 children below age five, 94 percent were reported to have been engaged in at least one stimulating activity.

Table 15c. Core indicator: Percent of children <5 years of age who engaged in at least one stimulating activity with any household member over 15 years of age during the last three days

Variable	All Children < 5 years (N=506)				
	Unweighted		Weighted	Confidence Interval	
	N	(n) %	%	Lower Limit	Upper Limit
Age Group					
0–11 months	41	(28) 68.3	68.6	44.4	85.7
12–23 months	97	(90) 92.8	94.2	85.9	97.7
2–4 years	368	(354) 96.2	97.6	95.1	98.9
Sex of Child					
Male	241	(226) 93.8	93.7	87.8	96.8
Female	265	(246) 92.8	94.9	90.9	97.2
All Children < 5 years	**506**	**(472) 93.3**	**94.3**	**90.7**	**96.6**
	Male Children < 5 years (N=241)				
	Unweighted		**Weighted**	**Confidence Interval**	
	N	**(n) %**	**%**	**Lower Limit**	**Upper Limit**
Age Group					
0–11 months	21	(13) 61.9	59.9	30.9	83.2
12–23 months	52	(50) 96.2	97.2	87.9	99.4
2–4 years	168	(163) 97.0	97.6	93.9	99.1
All Male Children < 5 years	**506**	**(226) 93.8**	**93.7**	**87.8**	**96.8**
	Female Children < 5 years (N=265)				
	Unweighted		**Weighted**	**Confidence Interval**	
	N	**(n) %**	**%**	**Lower Limit**	**Upper Limit**
Age Group					
0–11 months	20	(15) 75.0	78.9	51.1	93.1
12–23 months	45	(40) 89.0	90.6	75.3	96.8
2–4 years	200	(191) 95.5	97.6	94.6	99.0
All Female Children < 5 years	**265**	**(246) 92.8**	**94.9**	**90.9**	**97.2**

Across gender, almost the same proportion (94% for both sexes) was reported to have been engaged in at least one stimulating activity. However, engagement of children ages 0–11 months in stimulating activities was relatively low (69%) compared to the rest of the children, and was even lower for male children ages 0–11 months (60%). The relationship between the age of the child and engagement in any stimulating activity was statistically significant **($X^2_{(2, N=506)}$=22.39, p=<0.001)**.

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

The indicator "percent of caregivers who agree that harsh physical punishment is an appropriate means of discipline or control in the home or school" was derived from two variables: *whether harsh physical punishment is considered an appropriate means of discipline or control in the* ***home or at school***. Separate analyses considering caregivers' views for appropriateness at home and at school are presented in the additional tables in **Appendix B**.

According to the United Nations Children's Fund (UNICEF, 2016), violent discipline can take two forms: physical (or corporal) punishment and psychological aggression; both of which tend to overlap and frequently occur together, exacerbating the harm they inflict on young victims. The consequences of violent discipline range from immediate effects to long-term damage that children carry well into adulthood. The Nigeria Multiple Indicator Cluster Survey (Nigeria National Bureau of Statistics, 2011, p. 197) reported that 91 percent of Nigerian children ages 2–14 years had experienced violent discipline, with 34 percent receiving what is described as severe violent discipline; 61 percent of mothers/caretakers said they believed that children should be physically punished. In Akwa Ibom, it was reported that 94 percent of children ages 2–14 had experienced any violent method of discipline.

Table 16 presents the distribution of caregivers' attitudes, showing which of those from our survey agreed that harsh physical punishment is an appropriate means of discipline or control in the home or in school. Overall, 78 percent of the caregivers supported harsh punishment as appropriate for OVC either at home or in school. This percentage declined among older caregivers; 81 percent of those in the age group 18–30 years compared with 78 percent of those ages 31–50 years and 55 percent of those ages 50+ years approved of harsh punishment as appropriate for children either at home or in school. There was no significant difference between male and female caregivers ($X^2_{(1, N=629)}$**=1.84, p=0.37)**.

Table 16. Core indicator: Percent of caregivers of active beneficiaries who agree that harsh physical punishment is an appropriate means of discipline or control in the home or school

Variable	All Caregivers[1] (N=629)				
	Unweighted		Weighted	Confidence Interval	
	N	(n) %	%	Lower Limit	Upper Limit
Age Group[1]					
<18 years	1	0	0		
18–30 years	225	(191) 84.9	81.0	72.1	87.6
31–50 years	324	(261) 80.6	77.7	64.3	87.1
50+ years	72	(53) 73.6	70.4	55.7	81.8
Sex of Caregiver					
Male	515	(428) 83.1	79.1	71.4	85.1
Female	114	(84) 73.7	72.8	51.9	86.9
All Caregivers	**629**	**(512) 81.4**	**77.9**	**69.0**	**84.8**

[1]Age is missing for 12 caregivers and therefore not summarized here.

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

The ability of households to access funds for unexpected household expenses reflects issues around vulnerability and a measure of household resilience to economic shock. About 70 percent of households reported that they had recently experienced an unexpected need. However, only 11 percent of all households exposed to such shock were able to access money to meet such expenses. Within the age groups, only 5 percent of caregivers over age 50 compared with 16 percent of those ages 18–30 years were able to access money for unexpected household expenses. By sex, there was no difference in the ability to access funds for unexpected household expenses.

Table 17. Core indicator: Percent of households able to access money to pay for unexpected household expenses

Variable	All Caregivers[1] (N=629)				
	Unweighted		Weighted	95% Confidence Interval	
	N	(n) %	%	Lower Limit	Upper Limit
Age Group[1]					
<18 years	1	(0) 0.0	0	-	-
18–30 years	139	(14) 10.1	15.9	6.2	35.0
31–50 years	235	(21) 8.9	9.9	6.2	15.5
50+ years	57	(2) 3.5	4.9	1.1	19.1
Sex of Caregiver					
Male	80	(7) 8.8	11.0	6.7	17.5
Female	357	(31) 8.7	11.3	5.1	23.2
	437	**(38) 8.7**	**11.1**	**6.6**	**18.0**

[1]Of the 629 caregivers, 437 (69.5%) reported unexpected expenses in the past 12 months. This question was asked only of those 437 caregivers.

Nigeria-Specific Indicators

OVC_NG1: Percent of households that have attained food security in the last three months

All 629 caregivers were asked whether there had been a moment or moments in the last three months when his/her household did not have enough food to eat. Table 18 presents the distribution of households that had attained food security. Overall, among all 629 surveyed households of caregivers, only 15 percent had attained food security within the past three months (i.e., reporting that there were no moments in the past three months when the household did not have enough food to eat). About 21 percent of households with caregivers ages 18–30 years indicated attaining food security compared with 11 percent to 12 percent among the other caregivers; the relationship between a caregiver's age and household food security is statistically significant ($X^2_{(3, N=629)}=2.89, p=0.04$). About 9 percent of male primary caregiver households and 16 percent of female caregiver households had attained food security.

Table 18. Country-specific: Percent of households that have attained food security in the last three months

Variable	All caregivers (N=629)				
	Unweighted		Weighted	Confidence Interval	
	N	(n) %	%	Lower Limit	Upper Limit
Age Group[1]					
<18 years	1	(0) 0.0	0	-	-
18–30 years	225	(43) 19.1	21.2	14.8	29.4
31–50 years	324	(35) 10.8	11.4	8.0	15.9
50+ years	72	(9) 12.5	12.4	6.1	23.6
Sex of Caregiver					
Male	114	(13) 11.4	9.4	0.5	18.6
Female	515	(75) 14.6	16.2	11.8	21.8
All Households	**629**	**(88) 14.0**	15.0	**11.3**	**19.5**

OVC_NG2: Percent of households that have adequate shelter

Table 19 presents the distribution of households that considered their dwelling units to be adequate. Overall, among all 629 caregivers, only 21 percent of caregivers considered their dwelling units adequate for them and the children in their care. Although generally low, this report was relatively higher among male caregivers (25%) compared with their female counterparts (21%).

Table 19. Country-specific: Percent of caregivers who considered their dwelling unit to be adequate

Variable	All Caregivers (N=629)				
	Unweighted		Weighted	Confidence Interval	
	N	(n) %	%	Lower Limit	Upper Limit
Age Group[1]					
<18 years	1	(0)0.0	0.0	-	-
18–30 years	225	(46) 20.4	22.3	15.5	31.0
31–50 years	324	(74) 22.8	20.3	13.9	28.6
50+ years	72	(18) 25.0	23.3	15.3	33.8
Sex of Caregiver					
Male	114	(30) 26.3	24.5	16.1	35.4
Female	515	(109) 21.2	20.5	14.9	27.6
All Households	**629**	**(139) 22.1**	**21.2**	**15.8**	**28.0**

[1]Age is missing for 12 primary caregivers and therefore is not summarized under Age Group.

OVC_NG3: Percent of children with access to basic healthcare

Table 20 describes the percentage of children who had access to basic healthcare services for minor sicknesses, such as diarrhea, malaria, fever, and rashes. Only about a quarter of all sampled children (27%) were reported to have had access to primary healthcare during any common illness episode. Access to primary healthcare decreased with increasing age, however; children ages 0–4 years were more likely to get healthcare easily (38%) compared to older children. Access to basic health services was least reported among older children (1–17 years) (p=0.000).

Table 20. Country-specific: Percent of children having access to basic healthcare services

Variable	All Children (N=2,223)				
	Unweighted		Weighted	Confidence Interval	
	N	(n) %	%	Lower Limit	Upper Limit
Age Group					
0–4 years	506	(210) 41.5	37.9	29.7	46.9
5–9 years	796	(256) 32.2	27.1	21.2	34.0
10–14 years	634	(164) 25.9	20.4	13.9	29.0
15–17 years	287	(78) 27.2	20.1	13.2	20.1
Sex of Child					
Male	1,087	(360) 33.1	26.9	20.5	34.3
Female	1,136	(348) 30.6	26.5	20.5	33.5
All Children	**2,223**	**(708) 31.9**	**26.7**	**20.9**	**33.4**
	Male Children (N=1,087)				
	Unweighted		Weighted	Confidence Interval	
	N	(n) %	%	Lower Limit	Upper Limit
Age Group					
0–4 years	241	(108) 44.8	38.8	29.2	49.4
5–9 years	403	(125) 31.0	25.3	18.8	33.1
10–14 years	317	(88) 27.8	21.4	13.8	21.4
15–17 years	126	(39) 31.0	23.5	14.7	23.5
All Male Children	**1,087**	**(360) 33.1**	**26.9**	**20.5**	**26.9**
	Female Children (N=1136)				
	Unweighted		Weighted	Confidence Interval	
	N	(n) %	%	Lower Limit	Upper Limit
Age Group					
0–4 years	265	(102) 38.5	37.1	27.7	47.6
5–9 years	393	(131) 33.3	29.1	22.6	36.6
10–14 years	317	(76) 24.0	19.5	12.9	28.3
15–17 years	161	(39) 24.4	17.5	11.2	26.3
All Female Children	**1,136**	**(348) 30.6**	**26.5**	**20.5**	**33.5**

OVC_NG4: Percent of children who went to bed without food at least once in the last four weeks

Table 21 describes the percentage of children who went to bed without food at least once in the past four weeks across the surveyed households. Overall, 81 percent of the children had gone to bed hungry at least once in the past four weeks. Larger proportions of children in the older age groups (at least 84%) had gone to bed without food at least once within the referenced period compared with 66 percent of the children ages 0–4 years. The relationship between age and going to bed without food was statistically significant **($X^2_{(3, N=2223)}=8.11$, $p=0.00$)**, but not so for gender ($X^2_{(1, N=2223)}=0.54$, $p=0.47$).

Table 21. Country-specific: Percent of children who went to bed without food in the last four weeks

Variable	All Children (N=2,223)				
	Unweighted		Weighted	Confidence Interval	
	N	(n) %	%	Lower Limit	Upper Limit
Age Group					
0–4 years	506	(343) 67.8	65.8	57.5	73.3
5–9 years	796	(689) 86.6	84.3	73.9	91.1
10–14 years	634	(558) 88.0	85.2	69.9	93.5
15–17 years	287	(255) 88.6	86.3	70.8	94.2
Sex of Child					
Male	1,087	(903) 83.1	80.1	68.4	88.2
Female	1,136	(942) 82.9	81.3	72.9	87.5
All Children	**2,223**	**(1,845) 83.0**	**80.7**	**70.8**	**87.8**
	Male Children (N=1,087)				
	Unweighted		**Weighted**	**Confidence Interval**	
	N	**(n) %**	**%**	**Lower Limit**	**Upper Limit**
Age Group					
0–4 years	241	(159) 66.0	63.2	54.8	70.9
5–9 years	403	(350) 86.9	84.2	72.7	91.4
10–14 years	317	(282) 89.0	84.9	63.5	94.8
15–17 years	126	(112) 88.9	80.1	69.1	94.5
All Male Children	**1,108**	**(903) 83.1**	**80.1**	**68.4**	**88.2**
	Female Children (N=1,136)				
	Unweighted		**Weighted**	**Confidence Interval**	
	N	**(n) %**	**%**	**Lower Limit**	**Upper Limit**
Age Group					
0–4 years	265	(184) 69.4	68.2	57.2	77.4
5–9 years	393	(339) 86.3	84.4	74.1	84.4
10–14 years	317	(276) 87.1	85.6	75.1	85.6
15–17 years	161	(143) 88.8	86.4	70.7	86.4
All Female Children	**1,136**	**(942) 82.9**	**81.3**	**72.9**	**87.5**

DISCUSSION AND RECOMMENDATIONS

According to the FMWASD (2014), Nigeria has made progress in responding to the needs of OVC. This progress, however, is marginal when compared with the enormous needs of an estimated 17.5 million Nigerian children categorized as OVC. A 2008 national situation assessment and analysis showed that a significant proportion of OVC lost a parent to HIV/AIDS, road accidents, maternal mortality, ethnic conflicts, and terrorist insurgency. Other children became vulnerable through poverty, harmful cultural practices, and gender inequality.

This survey has provided outcome measures on core service areas, including education, health services, household economic strengthening, nutrition and food security, protection, and shelter and care, which can be used to reinforce the commitment of all stakeholders at the federal, state, and local government levels to strengthening care and support services to OVC.

Access to Services

Many WEWE beneficiary households (42%) had never received any services in the past six months. These findings were unexpected, given that WEWE began implementing its projects in 2015. It is not certain if this finding is a true reflection of the challenges these communities are facing in accessing these services or the result of respondent bias, either recall bias or purposely giving incorrect responses in the hope of getting more services (see Tables 6 and 7 of this report for the results of this question). In this survey, the interviewers asked the questions exactly as written in the questionnaire. (See Appendix A, questions 5 and 6 for the list of program items or services received.) Further follow-up on these findings were not within the scope of this survey. It is important, however, for WEWE service providers to follow up on these issues to verify the findings and address the gaps in channeling provision of services, if indeed these items and services are not being fully accessed by program beneficiaries.

HIV Testing for Children

The knowledge of HIV status has implications for early detection and uptake of health interventions. Studies have documented the health and economic benefits and survival opportunities associated with early detection of HIV status among children and adolescents, particularly OVC (Thurman, Luckett, Taylor, & Carnay, 2016; Kiragu, et al., 2008; and Violari, et al., 2008). In this survey, the caregivers of 53 percent of children ages 0–17 knew their HIV status.

Infant Nutrition

The contribution of undernutrition to child mortality, stemming from fetal growth restriction, stunting, wasting, micronutrient deficiencies, and suboptimal breastfeeding, is well documented (USAID, 2014; Bhutta, et al., 2013; Black, et al., 2008; Rice, Sacco, Hyder, & Black, 2000; UN Standing Committee on Nutrition, 2014). From a lifecycle perspective, and according to UNCEF, the most crucial time to meet a child's nutritional requirements is in the 1,000 days that encompass the period of pregnancy up through the child's second birthday. During this time, the child has increased nutritional needs to support rapid growth and development. Undernutrition also influences children's health, growth, and cognitive functioning and development. This survey found that less than 2 percent of children ages 0–17 were undernourished. By contrast, the 2011 Nigeria Multiple Indicator Cluster Survey indicated that 24 percent

of children under age five were underweight (9% severely) in the country as a whole; in Akwa Ibom State, however, only 13.6 percent of children were underweight, with 3.3 percent severely underweight (Nigeria National Bureau of Statistics, 2011, p. 4).

Health

The percentage of children too sick to participate in daily activities (MEASURE Evaluation, 2014) is a direct outcome indicator of a child's well-being. It is a measure of the impact of sickness, impairment, and mental health on a child's daily life. This survey found that almost one-fifth of the children in the sample were too sick to participate in daily activities It is especially important for the WEWE project to monitor this indicator, because children unable to participate in daily activities may need immediate medical care and could be in an especially vulnerable state. Disaggregation enables programs to define interventions to reach specific subpopulations based on need. For example, this survey found that children ages 0–4 s fell sick more frequently than any other age group within the two weeks preceding the survey.

Child Protection

A birth certificate is an official document provided as evidence of birth registration. The National Population Commission (NPopC) is the ministry of the Federal Republic of Nigeria authorized to issue birth certificates that are accepted in Nigeria and abroad. The process of obtaining a birth certificate is relatively easy through local government authorities but is not free. Possession of a birth certificate may be very important at a critical point in life—for example, for admission to schools and institutions or when applying for an ID card or international passport. According to the findings of this survey, birth certificate possession is still quite low. Only about 20 percent of all 2,223 children ages 0–17 were reported to have been issued with a birth certificate verified by a data collector. Although it is low, our survey estimate is slightly higher than the 16.9 percent reported for the state (Nigeria National Bureau of Statistics, 2011, p. 187). The project, however, must still make an effort to address the reasons for these low numbers at project sites. For example, WEWE should intensify raising awareness on the importance of birth registration among caregivers and ensure coordination between relevant government ministries and institutions involved in birth registration processes.

School Progression

School progression is very high, at 92 percent for children ages 5–17, according to the data collected in this survey. School progression figures for children in the program ages 5–9 and 10–14 were also high (86% and 98%). Although universal coverage is recommended, and the WEWE project can be commended for the high progression of children ages 10–14, efforts should be maintained on school enrollment and progression, especially for 5- to 9-year olds. School enrollment is a major developmental issue among OVC (Akinyemi & Isiugo-Abanihe, 2014). The percentage of children regularly attending school is a direct outcome measure of school attendance (MEASURE Evaluation, 2014). Research on children has demonstrated that education can contribute to significant improvements in the lives of children and their families. In addition to fostering basic educational competencies, such as reading, writing, and mathematics, learning opportunities can provide students with chances to develop age-appropriate, gender-sensitive life skills and offer health education interventions. School attendance indicates that children and youth have the opportunity to engage in formal learning and are not required to join the workforce or quit school to care for younger siblings or family members. Disaggregation is

necessary to identify subpopulations at high risk of dropping out of school, (for instance, the age when youth transition from primary to secondary school is believed to be a time in need of specific targeting to encourage continued school attendance).

Early Childhood Development

Stimulating activities enhance young children's physical and mental development. There is ample evidence from low-resource settings showing that programs to improve infant stimulation have very high beneficial effects on children's long-term development and psychosocial and mental health (Milteer Ginsburg, Council on Communications and Media Committee on Psychosocial Aspects of Child Health, & Mulligan, 2012; Kieling et al., 2011; Walker Chang, Powell, & Grantham-McGregor, 2005). Promoting stimulating activities among OVC will help them in both developing cognitively and creating a healthy lifestyle. This area is a strong one for the WEWE project based on the findings of this survey. Overall, among children younger than five years, 93 percent were reported to have been engaged in at least one stimulating activity. However, reading or counting were the least likely stimulating activities compared to playing and singing.

Child Discipline

Studies across the globe on the influence of harsh physical punishment on children all agree on its negative outcomes for the children (Afifi, Brownridge, Cox, & Sareen, 2006; Bugental, Martorell, & Barraza, 2005; Turner & Muller, 2004; Javo, Rønning, Heyerdahl, & Rudmin, 2004; Rodriguez, 2003; Coyl, Roggman, & Newland, 2002; Palmer & Hollin, 2001; MacMillan, Boyle, Wong, Duku, & Walsh, 1999). Seven out of 10 OVC caregivers in the sample supported harsh physical punishment as appropriate discipline for children, especially in schools. This generally accepted cultural practice has deep implications for children who are already vulnerable. Perceptions of physical discipline have been linked to actual use of such discipline against children. It is therefore important to note that reducing harsh physical discipline, violence, and abuse against children is a PEPFAR priority. Parenting and child protection efforts should address attitudes of corporal punishment in both the school and home settings, which may require different messaging.

Economic Strengthening

About 70 percent of households reported that they had recently experienced an unexpected need. However, only 11 percent of all households exposed to such shock were able to access money to meet such expenses. This percentage is quite low, indicating the economic volatility of OVC households and absence of adequate safety nets for them. We recommend that the WEWE Project develop mechanisms for follow-up and feedback (if not already in place) to assess the challenges faced by these households, and how best to improve service provision and support for effective interventions. There are well documented successes in improving OVC economic coping strategies in Zimbabwe (Williamson, 2003), Kenya (Adato & Bassett, 2008), and other East African countries (McPeak, Doss, Barrett, & Kristjanson, 2009) that could be successfully implemented in Akwa-Ibom or Nigeria overall. These include village savings and loan schemes for low-income groups. However, household economic strengthening programs should consider caregivers' level of readiness and capacity to succeed when determining whether a specific economic strengthening activity is appropriate.

Food Security

According to the USAID Multi-Sectoral Nutrition Strategy 2014–2025, intrinsic linkages exist between HIV, food insecurity, and malnutrition. Millions of HIV-infected people live in countries with high levels of poverty and food insecurity. Food insecurity has a negative impact on the overall nutritional and health status of those infected and affected by HIV/AIDS, and people living with HIV often say that food is the greatest need for them and their families (Aberman, Rawat, Drimie, Claros, & Kadiyala, 2014; Palermo, Rawat, Weiser, & Kadiyala, 2013). The situation in Nigeria is quite similar. The four additional Nigeria-specific indicators show that 85 percent of surveyed OVC households in Akwa Ibom were not food-secure, 81 percent of children went to bed at least once without food at least once in four weeks, and about 79 percent of households did not have adequate shelter. WEWE should do further research on food security among its Akwa Ibom beneficiaries to ascertain the situation and whether the caregivers' responses aimed at seeking more food support.

CONCLUSION

This report has presented the findings of the OVC survey of the beneficiaries of the WEWE project being implemented in the scale-up LGAs of Akwa-Ibom. The objectives of the survey were to examine the well-being of OVC and their caregivers at one point in time through a series of nine internationally accepted indicators and four additional indicators specific to Nigeria. The survey interviewed 629 caregivers and obtained information on 2,223 OVC ages 0–17 years.

One major lesson from this survey is that the quality of data on OVC varies among IPs, to CBOs, and community volunteers. In many cases, the databases are either not available in electronic format or the information provided by IPs on OVC are difficult to verify or not accurate. The CBOs and their community volunteers usually have more up-to-date information on the OVC they directly serve but it is usually available only in hard-copy notebooks or as pieces of paper. Because accurate and timely data are very important for effective service delivery, there is a need for well-structured, harmonized electronic data that are consistently maintained to support data use for service provision and studies.

The findings from this survey will help the WEWE project and USAID to better understand the characteristics of vulnerable and HIV-affected households in Akwa-Ibom, as well as the current state of their well-being as measured by the nine essential indicators. The data collected provide the basis for revised targets for both WEWE and USAID on specific indicators (e.g., numbers of caregivers who know children's HIV testing status, number of children benefitting from early child development services, and number of caregivers who believe harsh physical punishment is appropriate for child discipline) within the program for reporting and implementation purposes.

The survey design is subject to the limitations of cross-sectional surveys, including response and recall biases. Data reported by caregivers on OVC may reflect the perceived desirability of specific responses (social desirability bias) rather than actual knowledge or practices, and may be affected by response bias. However, WEWE collects similar data on some of the indicators on a routine basis; thus, a possible next step could be to assess their comparability of measurement and compare results.

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APPENDIX A. NIGERIA OVC MER ESSENTIAL SURVEY INDICATOR QUESTIONNAIRE

A	INTERVIEWER'S NAME:	
B	STATE	*[pre-populates from the cell phone]*
C	IMPLEMENTER	*[pre-populates from the cell phone]*
D	CBO	*[pre-populates from the cell phone]*
E	LGA	*[pre-populates from the cell phone]*
F	COMMUNITY	*[pre-populates from the cell phone]*
G	ADDRESS	_____ _____
H	HOUSEHOLD NUMBER/CAREGIVER'S NUMBER IN THE REGISTER	[- - - -]
I	NUMBER OF VISITS:	Visit 1 1 Visit 2 2 Visit 3 3

MER Indicator Consent Form for Caregivers

Hello. My name is _____ and I am working with CRERD/AHEAD consortium. We are conducting a survey about child and caregiver well-being so that we can improve the impact of our services and programs. To gather this information, we are interviewing caregivers in some households. We have randomly chosen to visit your household.

We would very much appreciate your participation in this survey. Participation involves answering some easy questions about children ages 0–17 under your care. If you care for a child who is older than 5 months but less than 5 years, I will also measure that child's mid-upper arm circumference.

The interview with you will not take too long, depending on the number of children that you care for. If you agree to participate, we will ask you questions from a questionnaire and we will note your answers on the cell phone. The risks to you as a participant in this survey are minimal. Some of the questions are personal and some people may find them difficult to answer. You do not need to answer any questions that you do not want to.

Your participation in this survey is voluntary. You will not be given any money or other compensation for participating. If you don't want to answer my questions, it is OK. If you agree to participate, you can decide not to answer certain questions and can stop the interview at any time. Your decision about whether to participate in this survey or to answer any specific questions will in no way affect any services that you receive.

Other people will not know if you participated in this survey. We will put things we learn about you together with things we learn about other people from your community, so no one can tell what answers came from you. We will never use your name, so no one will ever know what answers you gave me. Only a few data collectors will have access to this information, and all information will be stored in a locked cabinet under the care of CRERD/AHEAD consortium until it is destroyed in in about three (3) months from the conclusion of the survey. The stored data will have de-identified survey data that will be submitted to all stakeholders.

Your participation in this survey will not benefit you directly, but it may benefit others in the future, as your responses will improve our understanding of ways to provide better services to people in communities like yours.

Before you say yes or no to participating, we will answer any questions you have. You can also ask me questions later. Do you have any questions now?

[PAUSE & ANSWER ALL QUESTIONS]

If you have any questions later, you may contact the survey coordinator (Dr. Elizabeth Omoluabi) at 07015809204 or the office of the National Health Research Ethics Committee of Nigeria (NHREC) on +234095238363

	ASK: May I begin the interview now?	Yes No	1 2	 => end

Consent Statement for Signature of Respondent

I have read this entire consent form, or I have had it read to me, and any questions have been answered to my satisfaction. I agree to participate in this survey.

- First name of respondent: ……
- Signature of respondent: ……
- Signature of Data collector: ……

Household Roster

Starting from the eldest to the youngest person in this household, I am now going to ask a series of questions about each usual member of the household or anyone who slept in the house last night.

[Repeats for the total number of usual household members including the caregiver]

No	Question	Coding Category	Skip
1	First name	_____	
2	Sex	Male 1 Female 2	
3	Age ***Note:*** *In complete years* *If less than 1, record 0* *If unknown, record '-998'* *If no response, record '-999'*	[_____] years *Record months if age is less than 1 year, record months.*	0 => 4
4	Age ***Note:*** *In complete months*	[_____] months	
4	Relationship to caregiver	Caregiver 1 Wife/Husband 2 Son/Daughter 3 Son/Daughter-in-law 4 Grandchild 5 Parent 6 Parent in law 7 Brother/Sister 8 Other 96 Don't know 98 No response 99	
5	Is this person a usual member of the household or has he/she slept in the house last night?	Yes 1 No 2	
6	Is the caregiver responsible for taking care of [**NAME**]?		

MER Indicator Questionnaire: Caregivers

First, I have a few questions to ask

No	Question	Coding Category	Skip
Q1	What is your highest level of education?		
Q2	What is your main occupation/economic activity?		
Q3	What is your religion?	Christianity 1 Islam 2 Other (Specify) _____ 96	
Q4	Please tell me about items that your household owns. Does your household have: *[Select all that apply]*	Electricity? 1 A wall clock? 2 A radio? 3 A black/white television? 4 A color television? 5 A mobile telephone? 6 A non-mobile telephone? 7 A refrigerator? 8 A cable TV? 9 A generating set? 10 An air conditioner? 11 A computer? 12 An electric iron? 13 A fan? 14 A watch? 15 A bicycle? 16 A motorcycle/motor scooter? 17 An animal-drawn cart? 18 A car or truck? 19 A canoe? 20 A boat without a motor? 21 None of the above 77 No response 99	
	WEWE		
Q5	Have you personally ever received services or participated in activities from **"CBO"**? By this I mean, have you ever been visited by a community worker from **"CBO"**, or have you ever participated in any of the follow activities organized by **"CBO"** on: *[Select all that apply]* Nutrition education and counselling 1) Yes 2) No Measuring of MUAC for children 6 months to 4 years 1) Yes 2) No Provision of food for malnourished children 1) Yes 2) No Provision of nutrition supplement for malnourished		

	children		1) Yes 2) No	=>Q5b
Q5b	How long ago did you start receiving services or participating in activities from **"CBO"**?	[_____] months		
Q6	Have you personally received services or participated in activities from **"CBO"** in the last six months?	Yes No	1 2	
Q7	In the last 3-months has there been a moment or moments when your household did not have enough food to eat?	Yes No	1 2	
Q8	Do you feel that your current house/living area is adequate for you and your household?	Yes No	1 2	
Q9	Has your household been able to cover expected household expenses in the last 12 months?	Yes No	1 2	
Q10	Did your household incur any unexpected household expenses, such as a house repair or urgent medical treatment, in the last 12 months?	Yes No	1 2	=>Q12
Q11	Was your household able to pay for these unexpected expenses?	Yes No	1 2	
Q12	Do you think that hitting or beating a child is an appropriate means of discipline or control in the home?	Yes No	1 2	
Q13	Do you think that hitting or beating a child is an appropriate means of discipline or control at school?	Yes No	1 2	

MER Indicator Questionnaire for Children Ages 0–4 Years

[Repeats for the total number of children ages 0–4]

I am now going to ask a series of questions about **"NAME"**

No	Question	Coding Category		Skip
A1	Does **"NAME"** have a birth certificate?	Yes, seen Yes, not seen No	1 2 3	
A2	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"**:			
	(a) Read books to or looked at picture books with **"NAME"**?	Yes No	1 2	
	(b) Told stories to **"NAME"**?	Yes No	1 2	
	(c) Sang songs to **"NAME"** or with **"NAME"** including lullabies?	Yes No	1 2	
	(d) Played with **"NAME"**?	Yes No	1 2	
	(e) Named, counted, or drew things with **"NAME"**?	Yes No	1 2	
A3	In the last 2 weeks, has **"NAME"** been too sick to participate in daily activities?	Yes No	1 2	
Now, I would like to take the measurement of the Mid Upper Arm Circumference of **"NAME"**				
A4	May I measure **"NAME"**'s mid-upper arm circumference now?	Yes No. Child not at home No. Caregiver declines No. Other reasons	1 2 3 4	 =>A5 =>A5 =>A5
A4b	MUAC measurement **Note**: *The measurement must be taken on the **left upper** arm.* *Every measurement below 12 cm should be re-confirmed and reported to the supervisor*	 [_____] cm		
A5	Has **"NAME"** ever received services or participated in activities from **"CBO"**	Yes No	1 2	 =>A6
A5b	How long ago did **"NAME"** start receiving services or participating in activities from **"CBO"**? **Note**:	[_____] months		

	In months		
A6	Has **"NAME"** received services or participated in activities from **"CBO"** in the last 6 months?	Yes 1 No 2	
A7	I don't want to know the results, but has **"NAME"** ever been tested to see if he/she has the AIDS virus?	Yes 1 No 2	=>A9
A8	I don't want to know the results, but do you know the results of **"NAME"** test?	Yes 1 No 2	
A9	When **"NAME"** is ill with minor sicknesses such as diarrhea, malaria fever, rashes, is it easy for you to obtain medical treatment for **"NAME"** at primary health care centres? **Explain**: *A PHC is the basic structural and functional unit of the public health services. They are essentially single-physician clinics usually with facilities for minor surgeries.*	Yes 1 No 2	
A9b	The last time "**NAME"** was ill with minor sicknesses such as diarrhea, malaria fever, rashes, where did you seek treatment? Hint: *Do not read*	Did not seek treatment 1 Self-medication for him/her 2 Traditional health attendant 3 PPMV 4 Primary Healthcare Centre 5 Secondary Healthcare Centre 6 Other (Specify)_____ 96	
A10	Has there been any time when **"NAME"** has not had sufficient food to eat during the last 12 months?	Yes 1 No 2	
A11	Has **"NAME"** gone to sleep without food in the last 4 weeks?	Yes 1 No 2	

MER Indicator Questionnaire for Child Aged 5–17 Years

[Repeats for the total number of children aged 5-17]

I am now going to ask a series of questions about **"NAME"**

No	Question	Coding Category		Skip
B1	Does **"NAME"** have a birth certificate? **NOTE**: *Request to see the birth certificate and record "NO" if birth certificate is not sighted.*	Yes No	1 2	
B2	Is **"NAME"** currently enrolled in school?	Yes No	1 2	 =>B5
B3	During the last school week, did **"NAME"** miss any school days for any reason?	Yes No	1 2	
B4	What grade/form/year is **"NAME"** in now?	Pre-primary Primary 1 Primary 2 Primary 3 Primary 4 Primary 5 Primary 6 JSS1 JSS2 JSS3 SS1 SS2 SS3 Tertiary/university	1 2 3 4 5 6 7 8 9 10 11 12 13 14	
B5	Was **"NAME"** enrolled in school during the previous school year?	Yes No	1 2	 =>B7
B6	What grade/form/year was **"NAME"** during the previous school year?	Pre-primary Primary 1 Primary 2 Primary 3 Primary 4 Primary 5 Primary 6 JSS1 JSS2 JSS3 SS1 SS2 SS3	1 2 3 4 5 6 7 8 9 10 11 12 13	

		Tertiary/university	14	
B7	At any point in the last 2 weeks, has **"NAME"** been too sick to participate in daily activities?	Yes No	1 2	
B8	Has **"NAME"** ever received services or participated in activities from **"CBO"**?	Yes No	1 2	 =>B9
B8b	How long ago did **"NAME"** start receiving services or participating in activities from **"CBO"**?	[_____] months		
B9	Has **"NAME"** received services or participated in activities from **"CBO"** in the last 6 months?	Yes No	1 2	
B10	I don't want to know the results, but has **"NAME"** ever been tested to see if he/she has the AIDS virus?	Yes No	1 2	 => B12
B11	I don't want to know the results but do you know the results of **"NAME"**'s test?	Yes No	1 2	
B12	When **"NAME"** is ill with minor sicknesses such as diarrhea, malaria fever, rashes, is it easy for you to obtain medical treatment for **"NAME"** at primary health care centres? **Explain**: *A PHC is the basic structural and functional unit of the public health services. They are essentially single-physician clinics usually with facilities for minor surgeries.*	Yes No	1 2	
B12b	The last time "**NAME"** was ill with minor sicknesses such as diarrhea, malaria fever, rashes, where did you seek treatment? Hint: *Do not read*	Did not seek treatment self-medication for him/her Traditional health attendant PPMV Primary Healthcare Centre Secondary Healthcare Centre Other (Specify)_____	1 2 3 4 5 6 96	
B13	Has there been any time when **"NAME"** has not had sufficient food to eat during the last 12 months?	Yes No	1 2	
B14	Has **"NAME"** ever gone to sleep without food in the last 4 weeks	Yes No	1 2	

Thank you very much for your time. We have now come to the end of the survey.

Interview comment codes:	Interview completed			1
	Appointment made for later today			2
	Appointment made for another day			3
	Refused to continue and no appointment made			4
	Other (Specify) _____			96
Interview language	English			1
	Hausa			2
	Ibibio			3
	Igala			4
	Pidgin			5
	Tiv			6
	Yoruba			7
	Other (Specify) _____			96
GPS:	Latitude	Longitude	Altitude	Accuracy
Note: *Please step outside and record the GPS coordinate*				

APPENDIX B. Additional Tables of Findings

Table B1. Percent of children ages 0–17 years whose caregivers report the child has been tested for HIV

Variable	All Children (N=2,223)				
	Unweighted		Weighted	Confidence Interval	
	N	(n) %	%	Lower Limit	Upper Limit
Age Group					
0–4 years	506	(253) 50.0	56.2	47.3	64.7
5–9 years	796	(409) 51.4	56.4	47.7	64.7
10–14 years	634	(331) 52.2	57.9	46.4	68.6
15–17 years	287	(169) 58.9	62.2	49.2	73.6
Sex					
Male	1,087	(616) 54.2	55.8	46.3	64.9
Female	1,136	(546) 50.2	59.3	50.0	68.0
All Children	2,223	(1,162) 52.3	57.5	48.4	66.2
	Male Children (N=1,087)				
	Unweighted		Weighted	Confidence Interval	
	N	(n) %	%	Lower Limit	Upper Limit
Age Group					
0–4 years	241	(109) 45.2	52.4	39.5	65.0
5–9 years	403	(202) 50.1	56.3	47.3	64.9
10–14 years	317	(164) 51.7	57.1	44.9	68.4
15–17 years	126	(71) 56.4	57.1	40.9	71.8
All Male Children	**1,087**	**(546) 50.2**	**55.8**	**46.3**	**64.9**
	Female Children (N=1,136)				
	Unweighted		Weighted	Confidence Interval	
	N	(n) %	%	Lower Limit	Upper Limit
Age Group					
0–4 years	265	(144) 54.3	59.6	51.5	67.3
5–9 years	393	(207) 52.7	56.4	47.4	65.1
10–14 years	317	(167) 52.7	58.8	46.6	70.1
15–17 years	161	(98) 60.9	66.1	52.3	77.7
All Female Children	**1,136**	**(616) 54.2**	**59.3**	**50.0**	**68.0**

Table B2. Percent of children who have the wrong document as a birth certificate (not verified)

Variable	All Children (N=2,223)				
	Unweighted		Weighted	Confidence Interval	
	N	(n) %	%	Lower Limit	Upper Limit
Age Group					
0–4 years	506	(164) 32.4	33.5	26.8	41.0
5–9 years	796	(250) 31.4	31.1	25.2	38.2
10–14 years	634	(208) 32.8	32.1	25.3	39.7
15–17 years	287	(88) 30.7	30.5	23.1	39.0
Sex					
Male	1,087	(358) 32.9	32.8	27.1	39.1
Female	1,136	(352) 31.0	31.1	26.1	36.5
All Children	**2,223**	**(710) 31.9**	**31.3**	**27.0**	**37.3**
	Male Children (N=1,087)				
	Unweighted		**Weighted**	**Confidence Interval**	
	N	**(n) %**	**%**	**Lower Limit**	**Upper Limit**
Age Group					
0–4 years	241	(86) 35.7	38.5	30.7	46.9
5–9 years	403	(127) 31.5	31.3	23.8	78.4
10–14 years	317	(104) 32.8	32.1	25.6	39.4
15–17 years	126	(358) 32.5	29.0	19.2	41.3
All Male Children	**1,087**	**(358) 32.9**	**32.8**	**27.1**	**39.1**
	Female Children (N=1,136)				
	Unweighted		**Weighted**	**Confidence Interval**	
	N	**(n) %**	**%**	**Lower Limit**	**Upper Limit**
Age Group					
0–4 years	265	(78) 29.4	29.0	22.2	37.0
5–9 years	393	(123) 31.3	31.4	24.4	39.4
10–14 years	317	(104) 32.8	32.1	24.1	41.2
15–17 years	161	(47) 29.2	31.6	22.2	42.8
All Female Children	**1,136**	**(352) 31.0**	**31.1**	**26.1**	**36.5**

Table B3. Percent of children who have a birth certificate (seen or not seen)

Variable	All Children (N= 2,223)				
	Unweighted		Weighted	Confidence Interval	
	N	(n) %	%	Lower Limit	Upper Limit
Age Group					
0–4 years	506	(266) 52.6	56.1	47.8	64.1
5–9 years	796	(403) 50.6	52.1	44.2	59.8
10–14 years	634	(322) 50.8	52.4	42.9	61.7
15–17 years	287	(129) 45.0	46.6	36.3	57.3
Sex					
Male	1,087	(551) 50.7	53.2	46.3	59.9
Female	1,136	(569) 50.1	51.5	43.3	59.7
All Children	**2,223**	**(1,120) 50.4**	**52.4**	**45.1**	**59.5**
	Male Children (N=1,087)				
	Unweighted		Weighted	Confidence Interval	
	N	(n) %	%	Lower Limit	Upper Limit
Age Group					
0–4 years	241	(128) 53.1	56.7	48.9	64.3
5–9 years	403	(204) 50.6	52.6	48.9	60.1
10–14 years	317	(162) 51.1	53.8	44.1	63.1
15–17 years	126	(57) 45.2	47.3	36.9	57.8
All Male Children	**1,087**	**(551) 50.7**	**53.2**	**46.3**	**59.9**
	Female Children (N=1,136)				
	Unweighted		Weighted	Confidence Interval	
	N	(n) %	%	Lower Limit	Upper Limit
Age Group					
0–4 years	265	(138) 52.1	55.5	45.0	44.5
5–9 years	393	(199) 50.6	51.6	41.9	48.5
10–14 years	317	(160) 50.5	51.1	39.2	48.9
15–17 years	161	(72) 44.7	46.1	33.2	53.9
All Female Children	**1,136**	**(569) 50.9**	**51.5**	**43.3**	**51.5**

Table B4. Proportion of children ages 5–17 years currently enrolled in school

Age Group	All Children (N=1,717)			Male Children (N=846)			Female Children (N=871)		
	N	Unweighted (n) %	Weighted %	N	Unweighted (n) %	Weighted %	N	Unweighted (n) %	Weighted %
5–9 years	796	(739) 92.8	93.4	403	(372) 92.3	92.8	393	(367) 93.4	94
10–14 years	634	(567) 89.4	89.7	317	(278) 87.7	86.7	317	(289) 91.2	92.6
15–17 years	287	(200) 69.7	69.6	126	(86) 68. 3	67.0	161	(114) 70.8	71.6
Overall (5–17 years)	**1,717**	**(1,506) 87.7**	**88.0**	**846**	**(736) 87.0**	**86.7**	**871**	**(770) 88.4**	**89.2**

Table B5. Percent of caregivers of active beneficiaries who agree that harsh physical punishment is an appropriate means of discipline or control in the home

Variable	All Caregivers[1] (N=629)				
	Unweighted		Weighted	Confidence Interval	
	N	(n) %	%	Lower Limit	Upper Limit
Age Group[1]					
<18 years	1	(0) 100.0	0.0	-	-
18–30 years	225	(170) 75.6	72.4	63.0	80.1
31–50 years	324	(230) 71.0	69.9	58.0	79.7
50+ years	72	(48) 66.7	66.4	49.9	79.7
Education					
None/Islamiyah	50	(37) 74.0	74.1	59.2	84.9
Primary	319	(244) 76.5	75.0	64.2	83.4
Secondary or Higher	260	(174) 66.9	64.5	54.2	73.6
Wealth Index					
Lower	233	(161) 69.1	66.9	54.8	77.2
Middle	204	(149) 73.0	70.4	58.6	79.9
Upper	192	(145) 75.5	74.6	64.2	82.9
Total	**629**	**(455) 72.3**	**70.4**	**61.4**	**78.1**

[1]Age is missing for seven primary caregivers and therefore is not summarized under Age Group.

Table B6. Percent of caregivers of active beneficiaries who agree that harsh physical punishment is an appropriate means of discipline or control in the school

Variable	All Caregivers[1] (N=629)				
	Unweighted		Weighted	Confidence Interval	
	N	(n) %	%	Lower Limit	Upper Limit
Age Group[1]	1	0	0	-	-
<18 years	225	(184) 81.8	76.1	67.4	83.1
18–30 years	324	(254) 78.4	76.2	63.0	85.8
31–50 years	72	(52) 72.2	68.9	52.2	81.9
50+ years	**622**	**(490) 78.8**	**75.1**	**66.5**	**82.0**
Education					
None/Islamiyah	50	(40) 80.0	77.1	62.1	87.4
Primary	319	(265) 83.1	79.1	68.9	86.5
Secondary or higher	260	(192) 73.9	70.7	59.4	79.9
Wealth Index					
Lower	233	(185) 79.4	74.1	61.4	83.7
Middle	204	(164) 80.4	75.7	64.2	84.4
Upper	192	(148) 77.1	76.3	62.9	85.9
Total	**629**	**(497) 79.0**	**75.3**	**66.7**	**82.2**

[1]Age is missing for 12 caregivers and therefore is not summarized here.

APPENDIX C. Researchers Who Implemented the Project

MEASURE Evaluation Consultant as Study Coordinator—Moses Onazi

CRERD/AHEAD

Principal Investigators: Professor Adesegun Fatusi and Dr. Elizabeth Omoluabi

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Survey Field Manager: Dr. Musa Sani Zakirai

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Interviewers:

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Ekong Ekong Imo	Erikan Daniel Udonkpong	Ekah Utibe Etop
Emmanuel Mendie	Kufre Etim Okon	Ekong Martin Paul
Frank Okpe	Maryann Udontah	Joyce Peter Edem
Caroline A. Okokon	Queen Bassey	Otu Nsikak
Prince Essheitt	Uwem Michael	Ansa Enobong

APPENDIX D. Calculation of Sample Size

$n = D\,[(Z_\alpha + Z_\beta)^2 * (P_1\,(1 - P_1) + P_2\,(1 - P_2))\,/(P_2 - P_1)^2]$

n = required minimum sample size per survey round

D = design effect (assumed in the following equations to be the *default* value of 2)

P_1 = the estimated level of an indicator measured as a proportion at the time of the first survey

P_2 = the *expected* level of the indicator, either at some future date or for the project area, such that the quantity $(P_2 - P_1)$ is the size of the magnitude of change it is desirable to detect

Z_α = the Z-score corresponding to the desirable degree of confidence needed to conclude that an observed change of size $(P_2 - P_1)$ would not have occurred by chance (α - the level of statistical significance), and

Z_β = the z-score corresponding to the desired degree of confidence to be certain of detecting a change of size $(P_2 - P_1)$ if one occurred (β -statistical power).

In our case, we assume an increase of 10 percentage points in the essential survey indicators. We assume further that at the time of the first survey, about 50 percent of households had access to financial support—in this case, $P_1 = .50$ and $P_2 = .60$. Using standard parameters of a 95 percent level of significance (α) and 80 percent power (β), $Z_\alpha = 1.645$ and $Z_\beta = 0.840$ are chosen. Inserting these values in the above formula yields the following result:

$n = 2\,[(1.645 + 0.840)^2 * ((.5)\,(.5) + (.6)\,(.4))] / (.6 - .5)^2$

$= 2\,[(6.175 * 0.49) / .10^2]$

$= 2\,[(3.02575) / .01] = 2\,(302.575) = 605.15,$

or 606 households per survey round.

For WEWE, the sample was adjusted to 646 for nonresponse.

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