



Scaling Up Early Childhood Development in Zambia Right to Care Zambia Final Endline Assessment Report

[Contract/Agreement] Number: 72061119FA00001

Sponsoring USAID office: Health Office

Development objective: Health Office Development Objective 3

Milestone Number: 29

Milestone Due: December 31st, 2021

Table of Contents

1. Executive Summary	5
Introduction	5
Outcome Evaluation Objectives	5
Evaluation Design & Methods	5
Results & Conclusions	6
2. Introduction	7
3. Intervention Description	8
a. Community-based Parenting Groups	8
b. Zambian Folklore Children's Book	9
c. Logic Model	9
4. Evaluation questions	11
a. Outcome Evaluation Questions	11
5. Evaluation Design & Methods	12
a. Overall Study Design	12
b. Study Sites	12
c. Endline Data Collection Methods	13
d. Cluster Eligibility and Randomization to Study Arm	14
e. Eligibility Criteria	15
f. Sampling Methods	15
g. Data Collection, Management, and Storage	15
h. Sample Size	16
i. Measures	16
j. Data Analysis	17
k. Study Approvals and Permission	18
6. Findings for objective 1	19
a. Study Profile & Sample Characteristics	19
b. Evaluation Questions 1 & 2	24
c. Evaluation Question 3	26
7. Findings for objective 2	30
a. IDELA Sample Characteristics	30
b. Evaluation Question 4	31
c. Evaluation Question 5	32
8. Discussion	34
a. Key Findings for Objective 1: To assess the outcomes and effects of the intervention on early childhood development outcomes (as assessed through the index children)	34

b. Key Findings for Objective 2: To describe and document the degree to which the Government-supported Zambian Folklore Children’s Book affects child development (as assessed through the older siblings)	35
9. Conclusion	36
10. References	36
11. Annexes	38
a. Endline Household Survey Instrument	38
b. Endline In-Depth Interview Instrument	38

List of Abbreviations

CBPG	Community-Based Parenting Group
CREDI	Caregiver Reported Early Childhood Development Instrument
BUSPH	Boston University School of Public Health
BU IRB	Boston University Institutional Review Board
DHS	Demographic Health Survey
ECD	Early Childhood Development
GCC	Grand Challenges Canada
HFCA	Health Facility Catchment Areas
IDI	In-Depth Interview
NHRA	National Health Research Authority
RHC	Rural Health Centre
RTC-Z	Right to Care-Zambia
SMAGs	Safe Motherhood Action Groups
SUpErCDZ	Scaling Up Early Childhood Development in Zambia
UNZABREC	University of Zambia Biomedical Research Ethics Committee
USAID	United States Agency for International Development

1. EXECUTIVE SUMMARY

Introduction

Poor nutrition, delays in treatment of acute infections, untreated chronic infections, and lack of stimulating activity during childhood contribute to deficits in Early Childhood Development (ECD), including deficits in fine motor, verbal, and math skills. Early childhood interventions are critical to offset the negative impacts of early adversity and to ensure children can reach their developmental potential. Teaching parents play-based activities to stimulate children and providing nutrition supplements for children have been shown to improve physical growth and cognitive and motor development and delivering these interventions as a joint package holds great promise. Community-based Parenting Groups (CBPG) have shown beneficial impacts in some settings, and may be an effective, low-cost platform for delivering interventions to improve ECD at scale.

Through the Scaling Up Early Childhood Development in Zambia (SUpErCDZ) project, Right to Care Zambia (RTC-Z) in partnership with Boston University School of Public Health (BUSPH) and the Swiss Tropical and Public Health Institute (Swiss TPH) delivered a previously piloted ECD curriculum through a CBPG intervention at scale in rural Zambia. The CBPG curriculum was designed to be theatre- and interaction-based with lessons on nutrition, stimulation, play, cognitive development, and child illness appropriate to the age range of the children in each group. Groups were run within rural villages, facilitated by selected group participants, and supervised by community health volunteers.

Additionally, RTC-Z distributed the *Zambian Folklore Children's Book* targeted at increasing pre-grade reading comprehension and school readiness in rural Zambia. The *Zambian Folklore Children's Book* contains 22 Zambian folklore stories with culturally relevant illustrations and an annex designed to support the reader, offering creative ideas to better engage and interact with the child while reading.

Through a nested, cluster-randomized controlled design, an outcome evaluation was conducted to determine the effects of the CBPG and *Zambian Folklore Children's Book* interventions on the physical, cognitive, and motor development of young children, as well as the emergent literacy of slightly older children, for each intervention separately and when combined.

Outcome Evaluation Objectives

The aims of this study were:

Objective 1: To assess the outcomes and effects of the intervention on early childhood development outcomes (as assessed through the index children)

Objective 2: To describe and document the degree to which the Government-supported *Zambian Folklore Children's Book* affects child development (as assessed through the older siblings)

Evaluation Design & Methods

To estimate the effect of the parenting groups on key indicators of child development, we conducted a **prospective longitudinal study** using a **cluster-randomized controlled design**, with clustering and randomization at the health facility zonal level. We collected data at pre- and post-intervention timepoints. The intervention was implemented in 10 health facilities catchment areas (HFCAs) that had

previously received a maternity waiting home intervention in Southern and Eastern Provinces Zambia. Seventy-five zonal clusters were randomized to the parenting group treatment and control arms using a co-variate constrained randomization process to ensure balance in the characteristics of the zones and populations. A second covariate-constrained randomization process was run to sub-randomize each zonal cluster into the book treatment and control study arms. Within the 75 study zones, villages were randomly selected for inclusion in the study with probability for inclusion in the study proportionate to population size. Eligible households (with children 0-5 months of age at baseline) were approached in random order for participation in the study until village targets were met.

Baseline and endline tools assessed sample characteristics, child physical growth (index and older siblings), child development (index and older siblings), caregiver-child interactions, child health and nutrition, caregiver mental health and social support.

We estimated the impact of the intervention on the primary outcomes of interest using an intention-to-treat approach. The primary independent variable of interest is assignment to the intervention. We measured impact on two primary outcomes: 1) Child linear growth (height-for-age z-scores and stunting); and 2) Malawi Development Assessment Tool z-scores overall and for each sub-domain: gross motor, fine motor and performance, language and hearing, and social. For older children in the households, International Development and Early Learning Assessment (IDELA) tool z-scores were calculated overall and for each sub-domain: motor, literacy, numeracy, and social emotional.

Results & Conclusions

We observed no differences in characteristics of the households, caregivers, or index children between control and treatment groups. A final sample of 934 index children was reached at endline, (515 and 419 intervention and control respectively). Though the evaluation showed that the intervention had no significant impact on the odds of stunting (aOR 1.37 [95% CI 0.94 to 1.98]; $p=0.102$) nor on height-for-age z-scores ($\beta = -0.99$ [95% CI -0.27, 0.09]; $p=0.326$), the intervention had significant positive effects in all intermediary and many secondary outcomes for the index child including caregiver-child interactions ($\beta = -0.59$ [95% CI 0.26 to 0.91]; $p<0.001$), on child diet diversity ($\beta = -0.25$ [95% CI 0.05 to 0.44]; $p<0.012$) and on caregiver mental health.

Among the older siblings, 852 (383 and 469 book treatment and control respectively) were sampled at endline data collection. Analysis showed a modest impact of the *Zambian Folktales Children's Book* on the overall IDELA z-scores ($\beta = 0.11$ [95% CI -0.01 to 0.23]; $p<0.061$) of older children and on their social-emotional z-scores ($\beta = 0.11$ [95% CI 0.00 to 0.23]; $p<0.053$) after controlling for child age, child sex, caregiver age, and household wealth. There was no significant impact on motor, literacy, or numeracy domains of the IDELA, though results are positive and trending toward significance.

The CBPG intervention had a positive spillover effect on older sibling IDELA scores ($\beta = 0.12$ [95% CI 0.01 to 0.24]; $p<0.039$). Most notably, older siblings in the CBPG treatment group had improved numeracy ($\beta = 0.13$ [95% CI 0.02 to 0.25]; $p<0.022$) compared to the control group.

Additional analysis of endline data could further explain these results.

2. INTRODUCTION

Poor nutrition, delays in treatment of acute infections, untreated chronic infections, and lack of stimulating activity during childhood contribute to deficits in Early Childhood Development (ECD), including deficits in fine motor, verbal, and math skills¹. According to the latest estimates, 249 million (43%) children in low- and middle-income countries are at risk of poor development today¹, and 37% of children aged 3 to 4 years have deficits in cognitive or social-emotional development². Besides the near-term negative impact of these deficits on child development, there is increasing recognition that health and nutrition during the earliest years of life are key determinants of later life outcomes, including success in academic and job performance³.

Impaired child development, in terms of both cognition and linear growth, continues to limit the capacity of Zambian children to reach their full developmental potential. Nationwide, 35% children under age 5 are stunted (range, 29-46% by province; 29% in Southern Province and 34% in Eastern Province)¹ and 17% are severely stunted (14% in Southern Province and 17% in Eastern Province)⁴. In addition to a high burden of stunting and other forms of malnutrition (e.g., vitamin A and zinc deficiency), access to early education is limited in Zambia with only 32% children receiving early childhood care by age 6². There are ongoing efforts to address the country's burden of malnutrition, most notably through the Scaling Up Nutrition funding mechanism⁵. Moreover, several ongoing efforts are underway to increase access to early childhood care and education. However, none of these are being done at scale, and, besides the intervention package developed for this project, no programs have been rigorously tested or evaluated.

Early childhood interventions are critical to offset the negative impacts of early adversity and to ensure children can reach their developmental potential. Teaching parents play-based activities to stimulate children and providing nutrition supplements for children have been shown to improve physical growth and cognitive and motor development, and delivering these interventions as a joint package holds great promise⁶⁻⁸. Providing parents with the knowledge, motivation, and tools that they can use to interact with their children, including toys and books, may increase psychosocial stimulation and ultimately improve child development outcomes. Moreover, home-based reading with parents and children has been shown to improve reading fluency scores for kindergarten and Grade 1 children⁹. However, as highlighted in a recently published review of ECD interventions, the best methods for delivering these interventions effectively and efficiently in early childhood in resource-limited settings like Zambia remain unclear, limiting their large-scale uptake¹⁰. Community-based Parenting Groups (CBPG) have shown beneficial impacts in some settings, and may be an effective, low-cost platform for delivering interventions to improve ECD at scale¹¹⁻¹⁷.

Through the Scaling Up Early Childhood Development in Zambia (SUPErCDZ) project, Right to Care Zambia (RTC-Z) in partnership with Boston University School of Public Health (BUSPH) and the Swiss Tropical and Public Health Institute (Swiss TPHI) delivered a previously piloted ECD curriculum through a CBPG intervention at scale in rural Zambia. Additionally, RTC-Z distributed the Zambian Folklore Children's Book targeted at increasing pre-grade reading comprehension and school readiness in rural Zambia.

Through a nested, cluster-randomized design, an outcome evaluation was conducted to determine the effects of the CBPG and Zambian Folklore Children's Book interventions on the physical, cognitive, and motor development of young children, as well as the emergent literacy of slightly older children, for each intervention separately and when combined.

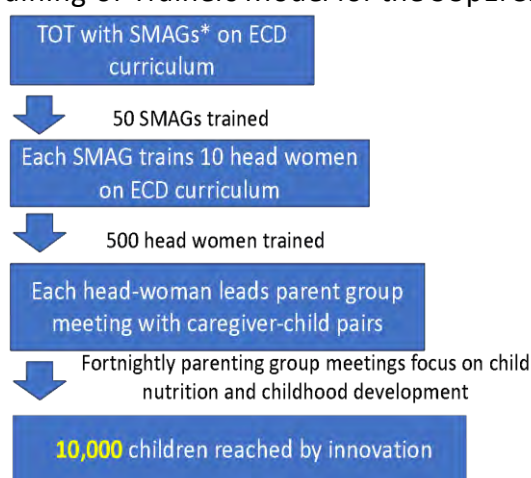
3. INTERVENTION DESCRIPTION

a. Community-based Parenting Groups

The intervention assessed in this study is an ECD curriculum delivered through CBPGs at scale in rural Zambia. The curriculum was designed to be theatre- and interaction-based with lessons on nutrition, stimulation, play, cognitive development, and child illness appropriate to the age range of the children in each group. Groups were run within villages in the intervention zones by a locally selected “head mother.” The groups were facilitated twice monthly, with separate groups for the primary caregivers of children aged 0-11 months, 12-23 months, 24-42 months, and 42-60 months.

This project implemented a validated ECD curriculum to caregiver-child pairs through the community-based parenting intervention using a trainer of trainers (TOT) model (Figure 1). The activity trained community health volunteers, largely made up of Safe Motherhood Action Group (SMAG) members, on the full ECD curriculum. Each SMAG member in turn trained and supervised the cadre of head mothers for their zone. SMAGs trained the head mothers every six weeks on the components of the curriculum delivered to caregiver-child pairs during fortnightly parenting group meetings. The SMAG members provided the head mothers with resources according to the planned meetings on a regular basis. Since SMAGs are well known within their communities, integrating them into the implementation of the project was important for adoption and continuation of the intervention long-term.

Figure 1: Training-of-Trainers Model for the SUPeRCDZ Program



Guided by the Information-Motivation-Behavior Skills Model (IMB Model)¹⁸, the CBPG curriculum aimed to provide parents of young children with: 1) information about the benefits of proper nutrition, stimulation, play, and reading for children’s development; 2) methods to use local resources to create nutritious meals and toys for children; and 3) the motivation to do so. The IMB Model demonstrates that information and motivation (personal and social) lead to obtaining behavior skills and are critical determinants in achieving health behavior change; one without the other is insufficient and have a much lower likelihood of change.

To implement a sustainable intervention, the project was designed: 1) based on evidence from a CBPG intervention piloted in rural Zambia; 2) to be delivered through evidence-based MWH and SMAG platforms, both integrated into the existing health systems at the health facility level with overall oversight

provided by health facility staff; and 3) to utilize participatory methods to engage key stakeholders in the project design and implementation.

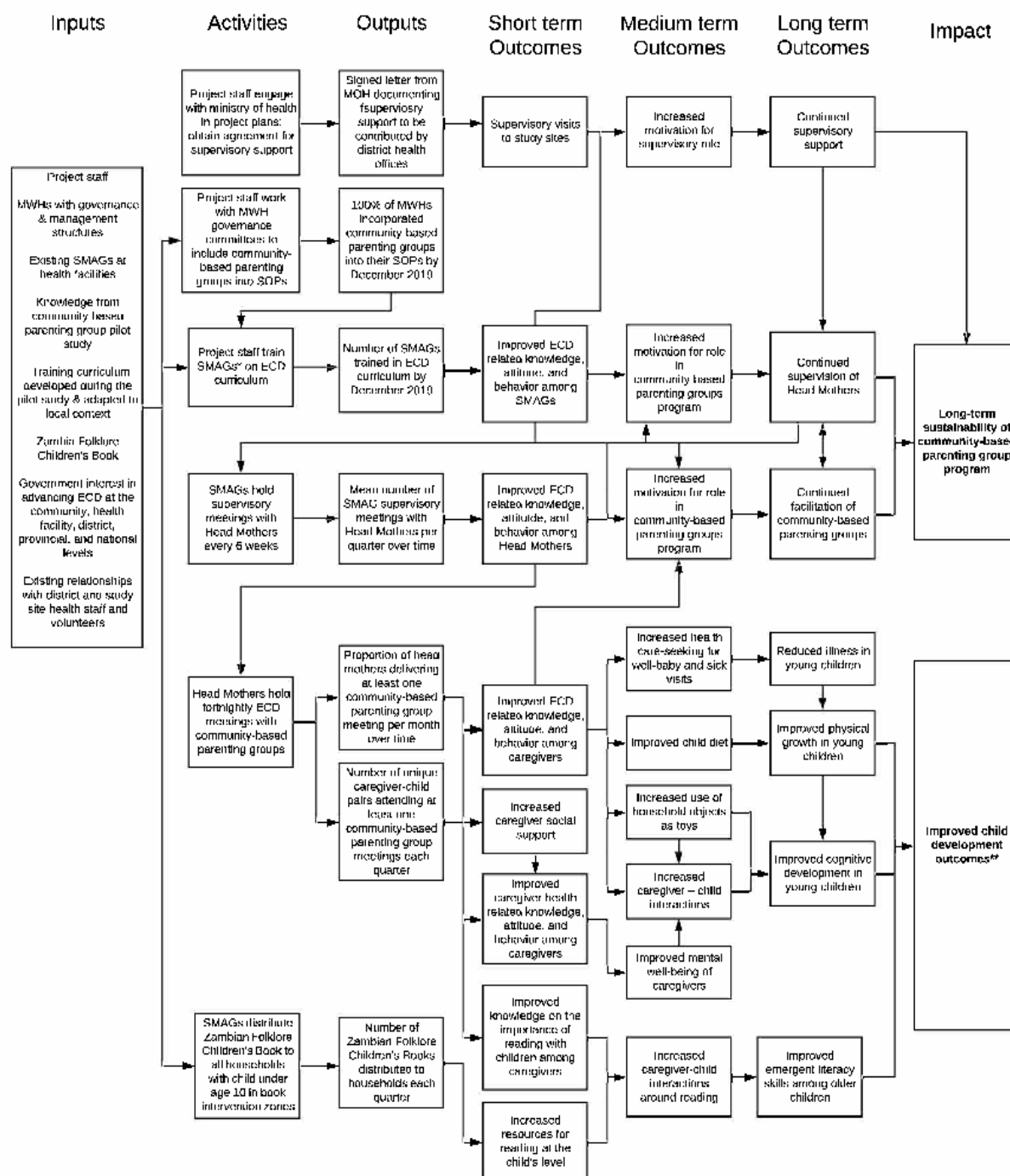
b. Zambian Folklore Children's Book

Within the overarching CBPG study, RTC-Z distributed the Zambian Folklore Children's Book, a children's book developed by Zambian psychology and ECD experts in collaboration with USAID. The children's book contains 22 Zambian folklore stories with culturally relevant illustrations and an annex designed to support the reader, offering creative ideas to better engage and interact with the child while reading. Book distribution was conducted February – August 2020. The book was distributed by SMAGs to all households with a child aged 9 and under within the book intervention zones in RTC-Z project health facility catchment areas, and by health facility staff in health facility catchment areas not part of the RTC project. Recipients of the book were encouraged to read to children in the households. Reading by older siblings was also encouraged. The book was developed for household use (non-curriculum reading) with the aim of increasing caregiver-child interactions, stimulating pre-grade children and ultimately improving children's cognitive development.

c. Logic Model

The logic model describing the CBPG and Zambian Folklore Children's Book interventions is presented in Figure 2 below. The model includes the activities, outputs, and outcomes for both target (caregivers of young children) and non-target (project staff, MOH, SMAGs, health mothers) individuals involved in the program.

Figure 2. Logic model describing the CBPG and Zambian Folklore Children's Book interventions



* SMAGs will be selected from zones randomly assigned to the intervention arm of the study; selection will be facilitated by health facility staff knowledgeable in their activity and commitment levels. Other health volunteers working in the intervention zones will be engaged if there are insufficient numbers of active SMAGs

**Improved early child development outcomes will be measured through rates of stunting, wasting, and underweight, and BSID-III scores among young children (aged 0-5 months at baseline, 24-29 months at endline); IDELA and EGRA scores among older children (aged 3-6 years at baseline, 5-8 years at endline)

4. EVALUATION QUESTIONS

a. Outcome Evaluation Questions

The aims of this study were (1) to understand the outcomes and effects of the parenting groups on child development outcomes when delivered at scale and (2) to understand the effects of the *Zambian Folklore Children's Book* on child development and school readiness outcomes. Below are the specific objectives for the study and the relevant evaluation questions:

Objective 1: To assess the outcomes and effects of the intervention on early childhood development outcomes (as assessed through the index children)

- 1) What was the effect of the intervention on child linear growth of children as measured by height-for-age z-scores?
- 2) What was the effect of the intervention on cognitive and language development in children as measured by the MDAT?
- 3) What was the effect of the intervention on key intermediate outcomes: caregiver-child interactions and child diet diversity?

Objective 2: To describe and document the degree to which the Government-supported *Zambian Folklore Children's Book* affects child development (as assessed through the older siblings)

- 1) How did the delivery of the *Zambian Folklore Children's Book* change caregiver-child and child-child interactions within households?
- 2) How did the *Zambian Folklore Children's Book* affect the cognitive development and school readiness of children within the household?
- 3) What were the perceptions of *Zambian Folklore Children's Book* and cultural preferences for other children's books in rural Zambia?

5. EVALUATION DESIGN & METHODS

a. Overall Study Design

To estimate the effect of the parenting groups on key indicators of child development, we conducted a **prospective longitudinal study** using a **cluster-randomized controlled trial**, with clustering and randomization at the health facility zonal level. We collected data at pre- and post-intervention timepoints.

b. Study Sites

The intervention was implemented in 10 health facilities catchment areas (HFCAs) that had previously received a maternity waiting home intervention in Southern and Eastern Provinces Zambia (Figure 3 and Table 1).

Figure 3. Map of study sites in Southern and Eastern Provinces, Zambia

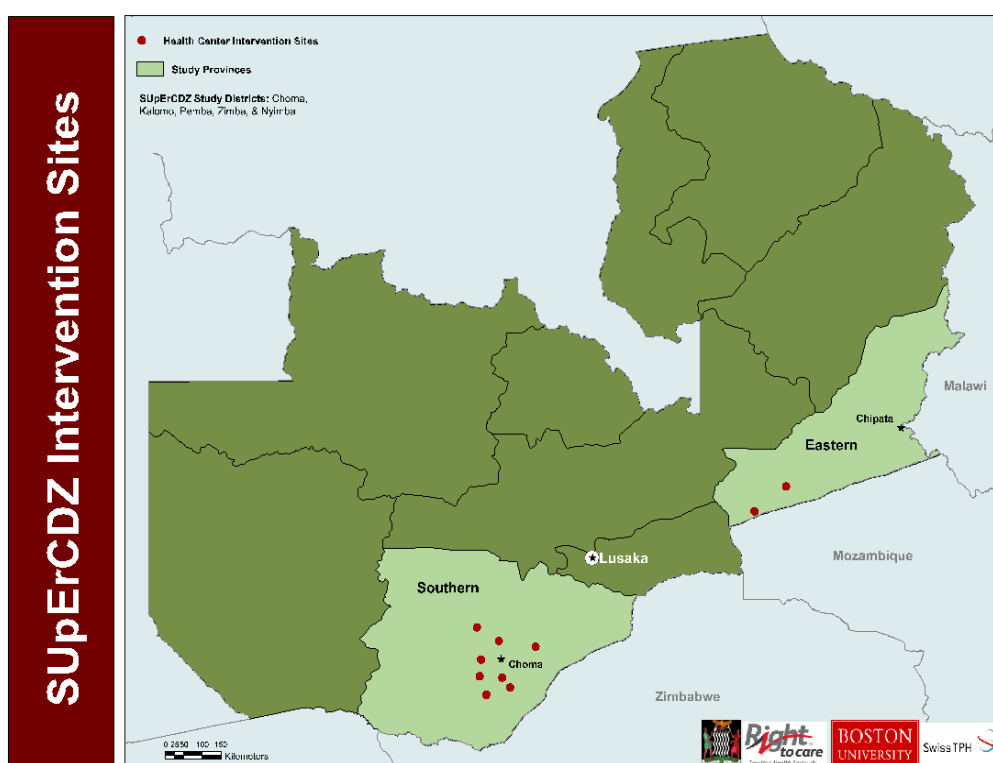


Table 1: SUPeRCDZ study sites in Southern and Eastern Provinces, Zambia

Province	District	Facility name
Eastern	Nyimba	Kacholola
Eastern	Nyimba	Mkopeka
Southern	Choma	Masuku
Southern	Choma	Mbabala
Southern	Choma	Simakutu
Southern	Kalomo	Siachitema
Southern	Kalomo	Mukwela
Southern	Kalomo	Kanchele
Southern	Kalomo	Chilala
Southern	Pemba	Jembo

c. Endline Data Collection Methods

Using mixed methods, data were collected at baseline from two main sources: a quantitative household survey among primary caregivers of children aged 0-5 months and a qualitative in-depth interview (IDI) with a sub-set of surveyed households. The household survey measured all constructs in Table 2.

Table 2. Household survey instrument topics for the baseline and endline evaluations

Household Survey Instrument Components	
a)	Basic demographics of household, caregiver, and index child
b)	Household member characteristics and socioeconomic status
c)	Schooling and early education programs of all children in household
d)	Index child birthweight, vaccinations, and clinic visits (extracted from child health card)
e)	Index child nutrition and diet diversity
f)	Recent illness and healthcare seeking for index child
g)	Age-relevant questions of the Caregiver Reported Early Childhood Development Instrument (CREDi)
h)	Availability of toys, books, and other reading material at home
i)	Time spent by caregivers playing with the child
j)	Time spent by caregivers reading to the child
k)	Caregiver perspectives on early child development activities
l)	Caregiver depression using the Self Reporting Questionnaire 20-item (SRQ-20)
m)	Caregiver social support
n)	Caregiver experiences with intimate partner violence*
o)	Caregiver participation in CBPGs, other social groups, and other ECD programs in the community
p)	Caregiver perspectives on curriculum content and skills development*
q)	COVID-19 perceptions and behaviors*

* Assessed at endline only

Ten percent of the sampled households were randomly selected to participate in an IDI. The interview guide was developed to expand on and gain in-depth information on the main evaluation constructs in the household survey. The interview with the primary caregiver elicited information on caregiver-child

interactions, stimulation, nutrition, and health-seeking behavior, barriers and facilitators to core aspects of ECD, as well as perspectives on each intervention.

d. Cluster Eligibility and Randomization to Study Arm

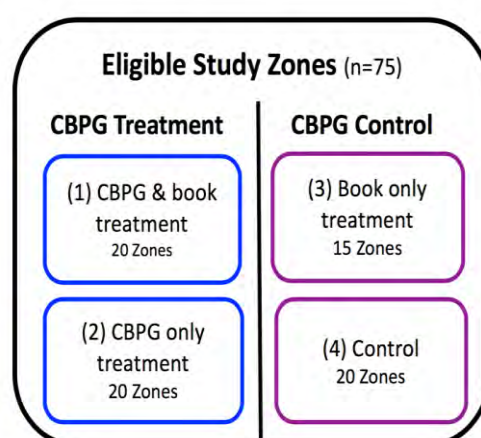
The catchment areas around the ten study health facilities were pre-subdivided by the health system into 79 zones. The following inclusion criteria was used to identify zones eligible for inclusion:

- At least one village has 4 or more children aged 0-5 months; or
- At least one group of villages whose centers are within 3km and combined have 4 or more children aged 0-5 months.

Seventy-five (75) zones were identified as eligible for inclusion in the study based on their estimated number of children aged 0-5 months¹. The 75 zonal clusters were then randomized - meaning each had equal probability of being assigned to the treatment or control arms for the CBPG intervention - using a co-variate constrained randomization process to ensure balance in the characteristics of the zones and populations¹⁹. The randomization was conducted in SAS® v9.4 and covariates included zone population size, number of villages in the zone, average village distance to the health facility, and average birthweight of babies born at the health facility between January 2016 and July 2018. When health facilities had an odd number of zones, the majority were randomized into the treatment arm to ensure the implementation goal of reaching 10,000 children with CBPGs could be met.

A second covariate-constrained randomization process was run to sub-randomize each zonal cluster into the book treatment and control study arms. When the health facility had an odd number of zones, the odd zone had a 50% chance of being randomized into either study arm. After both randomization procedures were run, each zonal cluster fell into one of four study arms: 1) CBPG and book treatment (20 clusters); 2) CBPG treatment only (20 clusters); 3) book treatment only (15 clusters); 4) pure control (20 clusters). CBPGs will be constituted in all zones randomized to the CBPG treatment arm (Figure 4). Control zones implemented the current standard of care which includes any ECD programs or initiatives that the government or other implementing partners may be offering in the study areas. Additionally, some CBPG control zones also implemented the book program.

Figure 4: Study arms with numbers of assigned zones



¹ The number of children aged 0-5 months was estimated as 2.0% of the village population, as collected from village headmen in mid-2019, based on the 2013/2014 Zambia Demographic and Health Survey household population figures for Southern and Eastern Province.

e. Eligibility Criteria

Caregiver-child dyads recruited into the study outcomes cohort met the following eligibility criteria:

- Children aged 0-5 months at baseline in the catchment areas of the ten selected health facilities in Southern and Eastern Provinces will be eligible to participate
- Child's primary caregiver must be 15 years or older
- Child's primary caregiver must be a female (because the participants in the women's group may feel uncomfortable discussing certain issues if a man is present)²

Within the eligible households, all available children between the ages of 3-6 years at baseline were assessed for school readiness and early learning using the International Development and Early Learning Assessment (IDELA) tool.

f. Sampling Methods

To ensure a sample that was representative of the intervention target population was selected, multi-stage random sampling procedures were employed. Within the 75 study zones, villages were randomly selected for inclusion in the study with probability for inclusion in the study proportionate to population size. Within the selected villages, all households with children aged 0-5 months and women in their third trimester of pregnancy were listed by local community health volunteers. Eligible households were approached in random order for participation in the study until village targets were met. If there was more than one caregiver-child dyad in a household, the electronic data capture software (SurveyCTO Collect Software) randomly selected the dyad to be surveyed. Approximately 10% of households were randomly selected to participate in an IDI in addition to the household survey.

On average, 15 villages were sampled per zone with approximately 3 respondents per village. In some cases, there were insufficient villages to meet the sample, so all the villages in the catchment area were selected. While we targeted 16 households per zone, due to the varying population sizes of the zones, those with much larger populations were oversampled.

g. Data Collection, Management, and Storage

A local team of enumerators literate in the appropriate local language(s) and in English was trained in research ethics and human subjects' protection, quantitative research methods, sampling methods, and the household survey instrument at baseline and again at endline. Written informed consent was obtained from each respondent. Informed consent and household surveys were completed in the local languages of respondent – Chitonga or Chinyanja. Survey data were captured on encrypted tablets using SurveyCTO Collect Software (Dobility, Inc, Cambridge, MA, USA). Survey data were uploaded nightly to a secure server administered by SurveyCTO and downloaded onto password-protected computers.

² This is anecdotal information. From conversations with the communities during the formative phase, there are very few, if any, male caregivers within the communities. If a man is left as a widower or his wife is not able to take care of her children for any reason, female relatives typically take on the responsibility of taking care of his children. Through qualitative data collection however, we are asking the communities about ways to get men involved with caregiving responsibilities. With this information, we plan to develop a strategy targeted at men which we will implement during the SUPeRCDZ project.

A subset of data collectors with previous experience in qualitative data collection were trained in interview techniques and the IDI instrument. IDIs took an additional 47 minutes to complete on average. IDIs were audio recorded, translated into English, and transcribed using Microsoft® Word.

h. Sample Size

The baseline target sample was 1,200 caregiver-child dyads and the actual sample was 1,108. After accounting for the clustered sampling design (intra-class correlation coefficient = 0.05; Design Effect = 1.55 with 12 children per cluster at endline), and assuming an alpha of .05, we have 80% power to detect a minimum of a 0.25 standard deviation (SD) improvement in height-for-age Z score (HAZ) over a 24-month intervention period, assuming an attrition rate of 20% (households enrolled at baseline were visited at endline). The study profile presented on page 19 presents the study sample at endline. After determining endline attrition and higher-than-expected ICCs, the study was powered to detect a 0.33 SD difference in standardized developmental outcomes with 80% power, and an effect size of 0.39 SD with power 90%.

i. Measures

Sample Characteristics

For this outcome evaluation, the key demographic variables of the index child, primary caregiver, and household were collected at baseline. Wealth quintiles were constructed based on a short series of household asset questions taken from the 2013/2014 Zambian Demographic and Health Survey (DHS). Dependency ratios were calculated as a total of the household members under 18 divided by the total number of adults aged 18 to 64 years. Distance from village to assigned rural health center was calculated using the GPS coordinates of the geographic center of the village (as identified by a senior community member) to the assigned rural health center by most direct route via pathway and road networks. Distance was calculated using ArcGIS® Online (ESRI, Redlands, CA, USA).

Child Physical Growth

The height, weight, and mid-upper arm circumference were collected using a height board, scale, and MUAC tape at baseline and endline, respectively. Child height-for-age z-scores, weight-for-age z-scores, and weight-for-height z-scores are normalized to WHO standards²⁰. Underweight is defined as weight-for-age z-score < -2²⁰. Wasting is defined as weight-for-height z-score < -2²⁰.

Childhood Development

Early childhood development was assessed in the index children at baseline and endline using the CREDI. The CREDI was created in 2017 to measure the motor, cognitive, language and social emotional skills of children under three years²¹, and has been tested and validated in 16 low, middle, and high income countries^{21,22}. The CREDI contains 109 items, which are scored as '1' if the caregiver reports that the child has achieved the milestone by the time of the interview, and '0' otherwise. The responses to these 109 items are used in an item-response theory-based algorithm to compute overall development scores, as well as scores in the motor, language, cognitive and socio-emotional domain²³.

Additionally, at endline only early childhood development was assessed in the index children using the Malawi Development Assessment Tool (MDAT), a culturally relevant developmental assessment tool created for use in low-resource, rural African settings.²⁴ The MDAT was created in 2010 to measure gross motor, fine motor, language, and social emotional skills in children zero to six years of age using 136 items, a combination of direct observation of the child and caregiver report.²⁴

Early learning and development in older siblings were assessed at baseline and endline using the IDELA. The IDELA was created by Save the Children to measure four domains—motor, literacy, numeracy, and

social emotional—in children 3.5 to 6 years of age. It has been tested and validated in several low- and middle-income countries²⁵. The IDELA includes 102 items across the four domains, including recognition of self and location, identification of numbers and letters, drawing a person, completing a simple puzzle, counting, and hopping multiple times, among others. Prior to administration, we adapted the IDELA slightly to the rural Zambian context based on similar adaptations made for a recent assessment in Malawi.

Caregiver-Child Interactions

Caregiver-child interactions were assessed at endline using the Multiple Indicator Cluster Survey (MICS) abbreviated home stimulation questionnaire²⁶. This questionnaire collects information on six broad activities household members aged 15 or older can do with children: reading books to child or looking at picture books; telling stories; singing songs to or with children; taking the child outside the home; playing with the child; and naming, counting or drawing things. The MICS stimulation score (ranging from 0-6) captures the total number of activities household members report to have engaged in during the 3 days preceding the survey.

Child Health and Nutrition

Key variables of child health, including birthweight, disabilities, and immunizations received were extracted from the child's Under-5 Card. Birthweight and disabilities were extracted at baseline. Immunizations were extracted at baseline and endline. For the children without a card, the primary caregiver provided this information. Immunizations received were compared to the schedule for immunizations by the Zambian Ministry of Health, to determine if the child was fully immunized for their age. Based on DHS questions²⁷, caregiver health care seeking behaviors for children were assessed by asking the caregiver to report on where if at all they sought treatment if the child had been ill in the previous two weeks with symptoms of fever, diarrhea, or difficulty breathing.

Caregiver mental health and social support

Caregiver mental well-being and presence of depression were assessed at baseline and endline using the 20-item WHO Self-Reporting Questionnaire (SRQ-20)²⁸. Responses are scored as 1 or 0 and added together. Caregiver SRQ z-scores are normalized within the study population. Lower SRQ scores and z-scores indicates better mental health. An SRQ score of greater than 7 indicates possible depression in the respondent, but is not a clinical diagnosis and is not intended as such.

Social support for the caregiver was assessed using the Multidimensional Scale of Perceived Social Support²⁹. Caregivers self-reported their level of agreement (Likert scale: very strongly disagree to very strongly agree) with 12 statements that address different sources of support, such as family and friends.

j. Data Analysis

Results presented in this report were analyzed using a dataset cleaned as of 20 December 2021. The dataset may require additional cleaning which may result in a change to the numbers. We do not expect any additional cleaning will significantly alter the core findings.

Quantitative Data

All quantitative cleaning was conducted in SAS version 9.4 (SAS Institute, Cary, NC, USA) while the primary analyses were conducted in Stata version 17 (StataCorp, College Station, TX, USA). First, descriptive characteristics for the index child, caregiver, and household were calculated for the full study sample and each CBPG study arm. Proportions, means, standard deviations (SD), medians, and inter-quartile ranges (IQR) were calculated. We compared participant characteristics across study arms at baseline to assess

balance Chi-squared test of association was used for proportions and ANOVAs for means and standard deviations, and Wald's Rank test for medians and IQR; all tests were clustered by zones.

The primary independent variable of interest is assignment to the intervention. Impact on two primary outcomes: 1) Child linear growth (HAZ and stunting); and 2) MDAT z-scores overall and for each sub-domain: gross motor, fine motor and performance, language and hearing, and social was measured.

the impact of the intervention on the primary outcomes of interest was estimated using an intention-to-treat approach. A set of mixed-effects models with cluster-level random effects and robust standard errors will be fit to estimate unadjusted and adjusted impacts. Adjusted models included the following control variables to increase precision: stratification variables, child age (in months), child gender, height-for-age z-score measured at baseline, baseline score of early childhood development as measured by the Caregiver Reported Early Childhood Development instruments (CREDi), caregiver age, caregiver education, and household wealth.

IDELA scores were calculated for older siblings assessed during endline. First, data were cleaned and all items with missing values were coded as '0'. Next, percentage correct scores were calculated for each subtest by summing total items achieved and dividing by the total score possible for that subtest. Next, four domain scores were calculated by averaging subtest percentage correct scores within each domain. Finally, overall IDELA score was calculated by averaging the four domain scores. A set of mixed-effects models with cluster-level random effects, household random effects, and robust standard errors will be fit to estimate unadjusted and adjusted impacts. Adjusted models included the following control variables to increase precision: child age at endline; child sex; caregiver age; and household wealth quintile.

Qualitative Data

All qualitative data were coded and analyzed in NVivo version 12© (Doncaster, Australia). A mixed inductive and deductive approach was used³⁰; codes were identified *a priori* according to the evaluation questions and IDI guide. Additional codes were included as new themes emerged. We ran a Matrix Coding query and conducted a content analysis³¹ to compare topics discussed in the treatment and control groups and to facilitate interpretation of results.

Stratified by study arm, data will be triangulated with quantitative household survey data. The 54 of the 108 total IDIs (50%) coded for this report were randomly selected from every study HFCA to ensure each HFCA was represented in the qualitative data. If final analysis using the full sample shows different results, the difference will be highlighted in the end of activity report.

k. Study Approvals and Permission

Ethical approvals were obtained from the Boston University Medical Campus institutional review board and the University of Zambia Biomedical Research Ethics Committee. Official governmental approval was granted by the National Health Research Authority, which is responsible for oversight of all research conducted in Zambia. Additional approvals were granted by the Ministry of Health at the National, Provincial, and District levels, as well as the Ministry of Community Development and Ministry of Agriculture. The study was explained to the traditional chiefs overseeing the local areas, who all provided their endorsement. Prior to baseline data collection and the start of implementation, project staff visited all villages within the study catchment areas (both treatment and control zones) to introduce the program and the study to the local health authorities and village-level traditional leaders to ensure the study goals and procedures were acceptable to the local communities and to reduce mistrust of data collectors.

6. FINDINGS FOR OBJECTIVE 1

Objective 1: To assess the outcomes and effects of the intervention on early childhood development outcomes (as assessed through the index children)

a. Study Profile & Sample Characteristics

KEY MESSAGES: SAMPLE CHARACTERISTICS OF HOUSEHOLDS, CAREGIVERS, & INDEX CHILDREN
A final sample of 934 index children was reached at endline; 419 children in the control group and 515 in the treatment group, for a follow-up rate of 85.5% and 83.3% at 2-year follow-up, respectively.
The study population is generally remote and poor with limited access to improved water sources, improved toilet facilities, or electricity, consistent with the characteristics of the rural populations of Southern and Eastern Provinces, Zambia, according to the Zambian DHS.

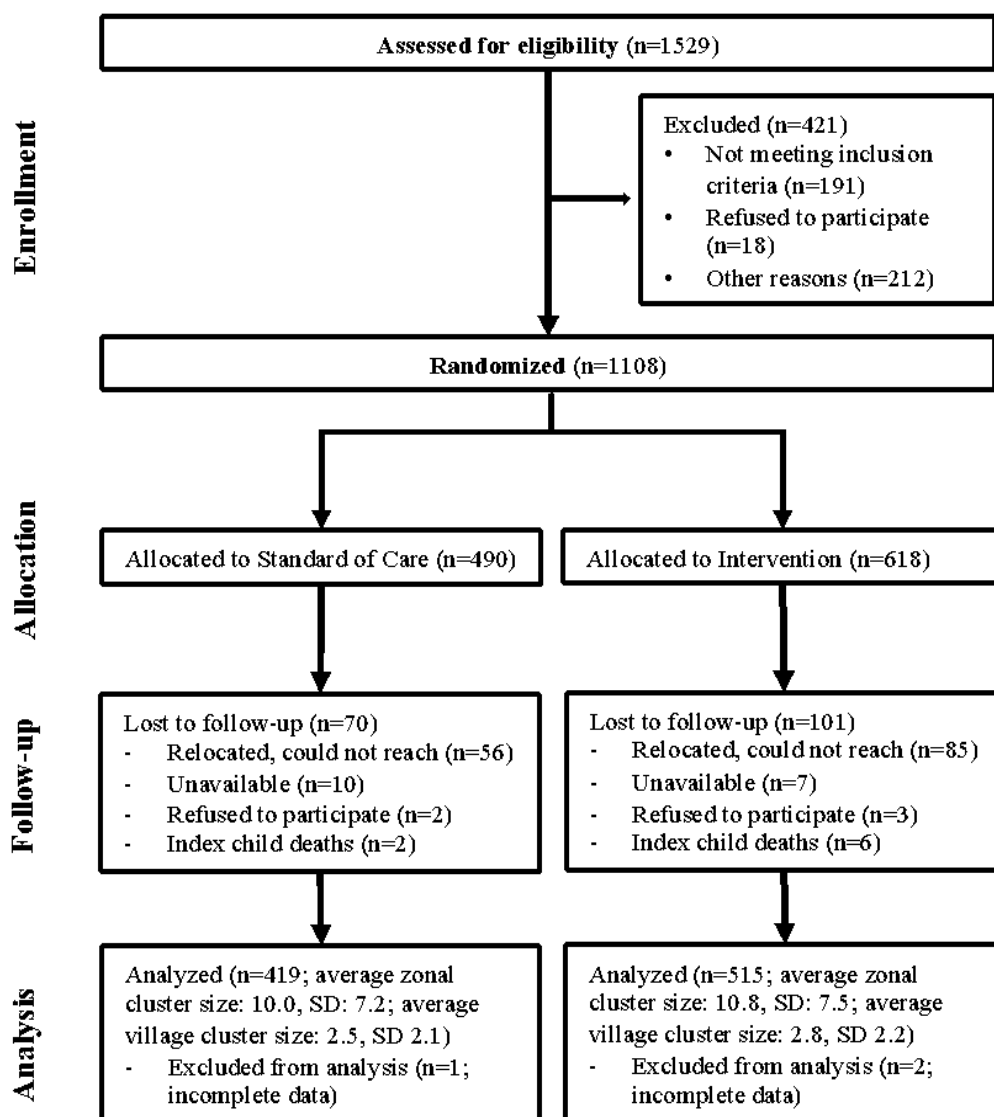
At baseline, 1,529 households were approached for participation in the study (Figure 5). In total, 1,108 infants (index child) aged 0-5 months old were enrolled in the study at baseline and their primary caregiver completed a household survey for an 82.8% response rate. Among the total baseline sample, 44.2% (n=490) were allocated to the control arm (standard of care), while 55.8% (n=618) were allocated to the treatment (intervention) arm of the study.

At endline two years later, 70 (14.3%) control and 101 (16.3%) treatment index children could not be followed up due to relocation of the household, unavailable households, death of the index child (Table 3), and refusals to participate. Due to incomplete data, one and two control and treatment households, respectively, were excluded from the analysis. We analyzed a final sample of 934 index children, 44.9% (n=419) control and 55.1% (n=515) treatment for a response rate of 85.5% and 83.3% at 2-year follow-up, respectively.

Table 3: Cause of death for index children during endline observation as reported by household HFCA	Event
Mkopeka	Child, born 28/6/2019, died December 2019 due to "lack of breastfed milk." The mother was sick and not producing as much milk and the child died. No positive covid test at time of death. No further description could be ascertained from the respondent.
Kacholola	Child, born 6/6/2019, died on approximately March 2020 due to pneumonia/respiratory illness. The child first had a fever then difficulty breathing. No positive covid test at time of death.

Kacholola	Child died at 4 months old. He was not eating and refused to be breastfed for a week. Was only taking water for a week before he died. No positive COVID-19 test at time of death.
Kacholola	Child died at 18 months old of spina bifida. No positive COVID-19 test at time of death.
Kacholola	Index child deceased. Details not provided
Mbabala	Child, born 24/04/2019, died at 19 months of age (November 2020). Child drowned in a bucket of water in the kitchen while caregiver stepped out of the room.
Kanchele	Child died at 8 months old of diarrhoea. No positive COVID-19 test at time of death.
Chilala	Index child died at 8 months of pneumonia or other respiratory illness. No positive COVID test at time of death.
Siachitema	Index child deceased. Details not provided

Figure 5. Preliminary results: study profile of SUPErCDZ outcome evaluation cohort



As shown in our Outcome Evaluation Baseline Analytic Report, **there was no differences observed in characteristics of the households, caregivers, or index children between control and treatment groups.** The households followed up at endline had a median of approximately 6 members and were on average

8km (SD 5.0) away from their assigned rural health center (RHC). Almost one-third had an unimproved water source, while nearly three-quarters had an unimproved toilet facility and a house with earth or sand floors. Nearly all had no electricity (94%) and used charcoal or wood as their cooking fuel (100%). These findings are consistent with the characteristics of the remote, rural population of Southern and Eastern Provinces, Zambia, according to the Zambia DHS⁴.

The primary caregivers of the index children were on average 26 years old at baseline and three-quarters of the caregivers were married or cohabiting. The majority (72%) of caregivers had completed primary school and are considered literate. Over one-third could not read any words in the sentences provided. Approximately 11% of caregivers were over 60 years of age at baseline, disabled, or seriously ill. Caregivers had an average mental health score of 2.8 out of 20.

Table 4. Preliminary results: baseline characteristics of study households and caregivers followed up at endline, stratified by study arm

	Control (N=419)	Treatment (N=515)
Household characteristics at baseline		
Household wealth quintile ^a , mean (SD)	3.0 (1.5)	3.0 (1.4)
Number of children under 5, mean (SD)	1.9 (0.82)	1.9 (0.81)
Dependency ratio ^b , mean (SD)	1.6 (0.8)	1.7 (0.9)
Household size (persons), median (IQR)	6.0 (5.0, 9.0)	6.0 (5.0, 8.0)
Distance from village to assigned rural health center (km) ^c , mean (SD)	7.7 (4.2)	8.0 (5.5)
Non-improved water source ^d , n (%)	124 (29.4)	155 (29.7)
Non-improved toilet ^e , n (%)	280 (66.5)	389 (74.7)
No electricity, n (%)	394 (93.6)	494 (94.8)
Charcoal or wood cooking fuel, n (%)	420 (99.8)	521 (100.0)
Caregiver characteristics at baseline		
Female ^f , n (%)	419 (99.5)	520 (99.8)
Age (years), mean (SD)	25.6 (7.3)	25.8 (7.5)
Married/cohabiting, n (%)	327 (77.7)	400 (76.8)
Completed primary school, n (%)	304 (72.2)	338 (64.9)
Literacy ^g , n (%)		
<i>Could not read at all</i>	152 (36.1)	193 (37.0)
<i>Able to read only part of a sentence</i>	53 (12.6)	54 (10.4)
<i>Able to read a whole sentence</i>	214 (50.8)	274 (52.6)
Caregiver over 60 years, disabled, or very ill, n (%)	48 (11.4)	60 (11.5)
Mental health (SRQ score) ^h , mean (SD)	2.8 (2.6)	2.8 (2.7)
^a Wealth quintiles were constructed based on a short series of household asset questions taken from the 2013/2014 Zambia Demographic and Health Survey (DHS) ^b Dependency ratios were calculated as a total of the household members under 18 divided by the total number of adults aged 18 to 64 years. ^c Distance measured from village geographic center (as identified by community member) to assigned rural health center by most direct route via pathway and road networks; calculated using ArcGIS® Online. ^d Non-improved water source: unprotected dug well, unprotected spring, tanker truck, cart with small tank, surface water ^e Non-improved toilet: pit latrine without slab/open pit, bucket toilet, hanging toilet/latrine, no facility/bush/field ^f All caregivers interviewed were female; only female primary caregivers were invited to participate in the community-based parenting groups based on pilot study findings. ^g Literacy was assessed at endline by asking the respondent to read as much as they could of one of four sentences in the language of their choice. The 2018 Zambia Demographic and Health literacy card was used. Two (0.48%) respondents were blind or visually impaired so their literacy level could not be assessed. ^h Caregiver mental health was assessed at using the 20-item World Health Organization Self-Reporting Questionnaire (SRQ-20)		

Baseline characteristics and outcomes measured for the index children followed at endline are presented in Table 5. Approximately 50% of the index children followed up at endline were female. The average age of the children at baseline was approximately 2.5 months (SD 1.7) and they weighed 3.1 kilograms (SD 0.6) at birth. Almost all babies in the sample (91.8%) were delivered at a health facility or hospital and over a three-quarters were exclusively breastfed at baseline.

Children in the control and treatment arms also had similar rates of stunting, underweight, and wasting, as well as similar rates of cognitive development, as measured using the CREDI. Lastly, children at baseline were reported to have similar rates of diarrhea, fever, and cough in the 2 weeks prior to the household survey being conducted.

Table 5. Preliminary results: characteristics of study index children followed up at endline, stratified by study arm

	Control (N=419)	Treatment (N=515)
<i>Index child characteristics at baseline</i>		
Female, n (%)	212 (50.4)	276 (53.1)
Age (months) at enrollment, mean (SD)	2.4 (1.7)	2.5 (1.7)
Birthweight (kg), mean (SD)	3.1 (0.58)	3.1 (0.57)
Low birthweight (<2.5 kg), n (%)	45 (10.7)	47 (9.0)
Birth at health facility or hospital, n (%)	379 (90.0)	484 (92.9)
Exclusively breastfed at time of assessment, n (%)	339 (80.5)	437 (83.9)
<i>Index child physical characteristics at baseline</i>		
Height-for-age (z-scores) ^a , mean (SD)	-0.95 (1.7)	-0.94 (1.9)
Weight-for-age (z-scores) ^a , mean (SD)	0.24 (1.4)	0.34 (1.4)
Weight-for-height (z-scores) ^a , mean (SD)	1.2 (1.8)	1.3 (1.8)
Stunting ^b , n (%)	104 (24.7)	136 (26.1)
Underweight ^c , n (%)	26 (6.2)	28 (5.4)
Wasting ^d , n (%)	16 (3.8)	24 (4.6)
<i>Index child cognitive characteristics at baseline</i>		
Motor development (z-scores) ^e , mean (SD)	-0.07 (1.1)	-0.05 (1.1)
Cognitive development (z-scores) ^e , mean (SD)	-0.20 (1.1)	-0.20 (1.1)
Language development (z-scores) ^e , mean (SD)	-0.59 (0.77)	-0.63 (0.68)
Socioemotional development (z-scores) ^e , mean (SD)	-0.03 (1.1)	-0.03 (1.1)
<i>Index child health characteristics at baseline</i>		
Diarrhea in previous 2 weeks, n (%)	79 (18.8)	85 (16.3)
Fever in previous 2 weeks, n (%)	92 (21.9)	118 (22.6)
Cough in previous 2 weeks, n (%)	20 (4.8)	20 (3.8)
^a Child height-for-age z-score, weight-for-age z-score, and weight-for-height z-score are normalized to WHO standards ^b Stunting is defined as height-for-age z-score < -2 ^c Underweight is defined as weight-for-age z-score < -2 ^d Wasting is defined as weight-for-height z-score < -2 ^e Motor, cognitive, language, and socioemotional development indicators were assessed using the Caregiver Reported Early Development Index (CREDI). Z-scores are normalized within the study population.		

b. Evaluation Questions 1 & 2

What was the effect of the intervention on child linear growth of children as measured by height-for-age z-scores?

What was the effect of the intervention on cognitive and language development in children as measured by the MDAT?

KEY MESSAGES: EVALUATION QUESTIONS 1 & 2

- Preliminary results suggest the intervention had no significant impact on the odds of stunting or height-for-age z scores two years after implementation.
- Preliminary results suggest the intervention had no significant impact on cognitive and language development as measured by the MDAT, two years after implementation.
- Results are preliminary and must be interpreted with caution; a more detailed analysis is currently underway.

After controlling for a set of baseline characteristics (Table 6), preliminary results suggest the intervention had no significant impact on the odds of stunting (aOR 1.37 [95% CI 0.94 to 1.98]; $p=0.102$) nor on height-for-age z-scores ($\beta = -0.99$ [95% CI -0.27, 0.09]; $p=0.326$). While no significant impact was observed on the MDAT overall score or subdomains, a significant impact was observed in the overall CREDI score ($\beta = 0.14$ [95% CI 0.01, 0.27]; $p=0.029$) as well as in the sub-domains of motor and language. Results are preliminary; not all control variables have been accounted for. A more in-depth analysis is currently underway.

Table 6. Preliminary results: primary outcomes for index children at endline, stratified by study arm

	n (%) or mean (SD) at endline		ICC	Unadjusted ^c		Adjusted ^d	
	Control	Treatment		OR or β (95% CI)	p-value	OR or β (95% CI)	p-value
Height-for-age z-scores ^a , mean (SD)	-1.55 (1.04)	-1.67 (1.12)	0.03	-0.11 (-0.29, 0.08)	0.259	-0.09 (-0.27, 0.09)	0.326
Stunting ^b , n (%)	129 (33.5)	183 (39.6)	<0.01	1.42 (0.99, 2.02)	0.054	1.37 (0.94, 1.98)	0.102
MDAT “development adjusted z-scores”, mean (SD)							
Gross Motor	1.51 (1.23)	1.53 (1.33)	0.25	-0.06 (-0.23, 0.11)	0.499	-0.04 (-0.20, 0.13)	0.651
Fine Motor	0.94 (1.10)	0.96 (1.47)	0.23	0.02 (-0.14, 0.17)	0.837	0.02 (-0.13, 0.17)	0.810
Language	0.97 (1.48)	0.89 (1.64)	0.30	0.10 (-0.10, 0.29)	0.341	0.10 (-0.09, 0.28)	0.300
Social-emotional	1.25 (1.02)	1.35 (1.06)	0.36	0.09 (-0.04, 0.22)	0.182	0.08 (-0.04, 0.21)	0.200
Overall	1.43 (1.22)	1.49 (1.47)	0.32	0.11 (-0.08, 0.29)	0.260	0.11 (-0.09, 0.30)	0.282
CREDI z-scores, mean (SD)							
Cognitive	-0.47 (0.94)	-0.29 (0.96)	0.24	0.12 (-0.01, 0.26)	0.080	0.11 (-0.03, 0.24)	0.115
Motor	-0.46 (0.95)	-0.17 (0.95)	0.26	0.17 (-0.01, 0.35)	0.060	0.16 (-0.01, 0.34)	0.065
Language	-0.20 (0.69)	-0.10 (0.78)	0.20	0.12 (0.02, 0.22)	0.020	0.12 (0.02, 0.21)	0.019
Social-emotional	-0.27 (0.97)	-0.06 (0.98)	0.24	0.14 (0.00, 0.28)	0.056	0.12 (-0.02, 0.26)	0.101
Overall	-0.28 (0.90)	-0.13 (0.94)	0.20	0.15 (0.02, 0.29)	0.025	0.14 (0.01, 0.27)	0.029
^a Child height-for-age z-score are normalized to WHO standards. ^b Stunting is defined as height-for-age z-score < -2. ^c Unadjusted models control for the stratifying variables used in the randomization procedure (health facility catchment area fixed effects; health zone population size; health zone average birthweight); and endline assessor fixed effects. ^d Adjusted models control for the following additional variables: child age at endline; child sex; child height-for-age z-score at baseline; child CREDI overall z-score at baseline; caregiver age and education; and household wealth quintile.							

c. Evaluation Question 3

What was the effect of the intervention on key intermediate outcomes: caregiver-child interactions and child diet diversity?

KEY MESSAGES: EVALUATION QUESTION 3

- Preliminary results suggest the intervention had significant effects on all intermediary and secondary outcomes for the index children, including increases in caregiver-child interactions and child diet diversity in the treatment group compared to the control group
- Preliminary results suggest caregivers reported better mental health and increased social support scores in the treatment group compared to the control group
- Preliminary analysis of the qualitative data corroborate quantitative data; respondents mentioned the importance of nutrients to help the child grow strong and to protect them from illness and the importance of taking children to the clinic when they are unwell.

Quantitative Results

Two years after implementation, preliminary findings suggest the intervention had significant positive effects on all intermediary and many secondary outcomes for the index children (Table 7). After controlling for potential confounders, the preliminary findings suggest the intervention had a significant positive impact on caregiver-child interactions ($\beta = -0.59$ [95% CI 0.26 to 0.91]; $p < 0.001$), on child diet diversity ($\beta = -0.25$ [95% CI 0.05 to 0.44]; $p < 0.012$) and on caregiver mental health. Additionally, the treatment group had higher odds of having attended well baby visits ($p = 0.051$) and of having toys in the house ($p < 0.001$).

Table 7. Preliminary results: intermediary and secondary outcomes for index children at endline, stratified by study arm

	n (%) or mean (SD) at endline		ICC	Unadjusted ^h		Adjusted ⁱ	
	Control	Treatment		OR or β (95% CI)	p-value	OR or β (95% CI)	p-value
Intermediary Outcomes							
Caregiver-child interaction score ^a , mean (SD)	3.05 (1.74)	3.66 (1.71)	0.24	0.61 (0.29, 0.92)	<0.001	0.59 (0.26, 0.91)	<0.001
Child diet diversity score ^b , mean (SD)	3.41 (1.32)	4.10 (1.48)	0.26	0.28 (0.08, 0.48)	0.006	0.25 (0.05, 0.44)	0.012
Caregiver mental health symptom score ^c , mean (SD)	4.83 (4.64)	4.69 (5.04)	0.22	-0.91 (-1.53, -0.29)	0.004	-0.90 (-1.52, -0.29)	0.004
Caregiver social support score ^d , mean (SD)	68.70 (15.24)	72.64 (13.81)	0.18	2.58 (0.17, 4.99)	0.036	2.36 (-0.06, 4.79)	0.056
Secondary Outcomes							
Up to date on age appropriate vaccines ^e , n (%)	279 (74.0)	352 (74.9)	0.13	1.09 (0.69, 1.74)	0.705	1.08 (0.68, 1.71)	0.745
Vitamin A supplementation, n (%)	269 (81.5)	372 (87.1)	0.23	1.55 (0.81, 2.98)	0.184	1.59 (0.80, 3.16)	0.185
Well-baby visits attended ^f , mean (SD)	15.41 (7.79)	18.30 (7.72)	0.34	1.77 (0.03, 3.51)	0.047	1.65 (-0.10, 3.31)	0.051
Children’s toys in household ^g , mean (SD)	0.76 (1.19)	1.38 (1.72)	0.17	0.44 (0.23, 0.66)	<0.001	0.40 (0.20, 0.60)	<0.001
Slept under a bed net prior night, n (%)	201 (48.3)	236 (46.1)	0.17	0.94 (0.64, 1.38)	0.748	0.92 (0.63, 1.35)	0.687
^a Caregiver-child interaction was assessed using the Multiple Indicator Cluster Survey (MICS). Activities with child could be performed by the primary caregiver, the father, or any other individual at least 15 years of age.							
^b Based on Demographic and Health Survey methodology							
^c Caregiver mental health was assessed using the World Health Organization Self-Reported Questionnaire (WHO SQR). Lower SRQ score indicates better mental health.							
^d Caregiver social support assess using the Multidimensional Scale of Perceived Social Support (MSPSS). Questions asked about social support from a significant other, family, and friends.							
^e Immunizations received based on child’s under-5 card or reported by primary caregiver. Immunizations received compared to Zambian Ministry of Health immunization schedule appropriate for child’s age.							
^f Well-baby visits measured by caregiver report and corroborated through review of the Under-5 Clinic Card							
^g Includes store-bought and homemade toys.							
^h Unadjusted models control for the stratifying variables used in the randomization procedure (health facility catchment area fixed effects; health zone population size; health zone average birthweight); and endline assessor fixed effects.							
ⁱ Adjusted models control for the following variables: child age at endline; child sex; child twin status; and household wealth quintile							

Qualitative Results

Participants in the control and treatment groups were asked to elaborate on their nutrition and healthcare seeking behaviors regarding the index children during the qualitative IDIs (Table 8). When asked about good nutrition practices, the majority of respondents from both treatment and control groups discussed giving young children porridge with groundnuts, with some respondents from both groups also discussing the addition of vegetables. While some control respondents discussed the importance of children eating nutritious foods to grow well, **in the treatment group in particular, many respondents mentioned the importance of a “balanced diet” with a variety of nutrients to help the child grow strong and to protect them from illness.** Some treatment respondents criticized their community members who do not feed their children enough throughout the day or do not give their children diverse foods.

When asked about good healthcare seeking practices, **the majority of respondents from both treatment and control groups discussed taking their child to the clinic promptly whenever the child was not feeling well**, with some mentioning the need to bring the child when they have an elevated temperature. A few control respondents mentioned the importance of taking the child to the clinic prior to searching for herbal remedies.

Treatment respondents were also asked about the usefulness of the CBPGs. Respondents widely described the groups being helpful, with many mentioning that they learned good childcaring practices from participating in the groups.

Table 8. Preliminary results: endline qualitative IDI responses for primary caregivers of index children, stratified by study arm

Themes	Control	Treatment
Nutrition Practices	1. Good nutrition practices: serving children porridge or nshima with groundnuts; adding vegetables or relish, such as okra; ensuring children eat nutrients to grow well 2. Nutritious foods mentioned included: oranges, bananas, carrots, eggs, milk, fish/kapenta, beans, biscuits, soup (cabbage and beef)	1. Good nutrition practices: serving children porridge with groundnuts; adding vegetables; importance of a balanced diet with a variety of nutrients to help children grow strong and/or protect them from illness 2. Bad nutrition practices: criticized community members who do not feed their children enough throughout the day or do not give their children diverse foods 3. Nutritious foods mentioned included: pumpkins, sweet potatoes, eggs, fish/kapenta, milk, bananas, beans, nshima with vegetables
Healthcare Seeking Practices	1. Good healthcare seeking practices: take child to clinic promptly whenever they are feeling sick; take to the clinic when they have an elevated temperature; take child to clinic prior to searching for herbal remedies	1. Good healthcare seeking practices: take child to clinic promptly whenever they are feeling sick; take to the clinic when they have an elevated temperature
Usefulness of Groups	Not applicable	1. Groups are helpful: caregivers learned good childcaring practices

Illustrative Quotes

Feeding Practices

- a. "In the past we just knew to cook Nshima for them as long as she has eaten. Only a little porridge was cooked. Again you cook Nshima in the evening. Same food over and over. So after lessons we learnt even porridge was good for the child when you add pounded groundnuts." – Primary caregiver, female, treatment group
- b. "What makes us different is that others would prepare porridge for the child with plain mealie meal, with salt and serves the child but that is not the case with me, I add cooking oil and vegetables. That way the porridge is rich, vegetable have vitamin A, sugar has energy and ground nuts has energy." – Primary caregiver, female, treatment group
- c. "Good nutrition is that porridge which has groundnut powder and sardines, or if you want even veggies. Those things are good to put for the child. Because they are the ones which have nutrition, and they make the child to grow properly." – Primary caregiver, female, control group
- d. "In the morning, you can cook porridge for her, there is nothing I am putting. Then again in the afternoon, when I cook nshima for her, she is eating plain relish. Then again in the evening, she eats okra, then in the

night she just sleeps she doesn't even eat, then again in the morning when she wakes up, I give her leftovers from yesterday." – Primary caregiver, female, control group

Healthcare Seeking Practices

- e. "I take her if her temperature is high and for the under-five clinic, I take her every month." – Primary caregiver, female, treatment group
- f. "There are certain diseases that do not raise the body temperature so if a child looks powerless in a certain way. Sometimes she starts to cry frequently then you will know that she is not feeling well and you will start walking to the clinic even if the body temperature is normal." – Primary caregiver, female, control group
- g. "So we are supposed to hurry, when you feel the way you feel to rush to the clinic so that they quickly protect you so that the child does not get a bad life, it should have a good life." – Primary caregiver, female, control group

Usefulness of CBPGs

- h. "They just put more effort in caring for children and you see the change in their growth." – Primary caregiver, female, treatment group
- i. "What is most helpful to them is the motivation of wanting the child to be very intelligent all the time." – Primary caregiver, female, treatment group
- j. "According to the education that you gave us and that we also educated our children have really improved our lives and also our wellbeing than before." – Primary caregiver, female, treatment group

7. FINDINGS FOR OBJECTIVE 2

Objective 2: To describe and document the degree to which the government-supported *Zambian Folklore Children's Book* effects child development outcomes (as assessed through the older siblings)

a. IDELA Sample Characteristics

Among all households followed up at endline, 890 children were found within the appropriate age ranges (5-8 years of age) within 643 households sampled. Among them, 26 (3.0%) children were unavailable for assessment due to: being away from the household (n=23, 88.5%), having a disability that precluded participation (n=2, 7.8%), or other reason (n=3, 3.8%). After assenting, 10 (1.2%) children refused to engage with the interviewer. Overall, the 852 children between five and eight years of age were assessed at endline using the IDELA for a response rate of 95.7% among eligible children. Among the 852 older siblings, 383 (45.0%) and 469 (55.0%) children were sampled in the book control and treatment zones, respectively (Table 9).

Balance was achieved between the book control and treatment groups among the older sibling characteristics at endline and their associated household characteristics at baseline. At endline, children were on average 6.5 years of age, approximately 50% were female, and they had one year of early education. Less than a third of children were currently enrolled in primary school, which generally starts in Grade 1 at age 7.

Households where these children lived at baseline had a median of 6 members, with a mean dependency ratio of 1.6, and approximately 1.8 children under the age of 5. They had less than one children's book each in the household on average and approximately 4 books total in the household.

Table 9. Preliminary results: older sibling characteristics at endline for the IDELA sample with their associated baseline household characteristics, stratified by study arm

	Control	Treatment
<i>Child Characteristics at Endline</i>	N = 383	N = 469
Age (years), mean (SD)	6.5 (1.3)	6.4 (1.3)
Female, n (%)	195 (50.9)	230 (49.0)
Years of early education, mean (SD)	1.1 (0.99)	0.96 (0.80)
Currently in primary school, n (%)	113 (29.5)	122 (26.0)
<i>Household Characteristics at Baseline</i>	N = 279	N = 345
Household wealth quintile ^a , mean (SD)	3.1 (1.5)	3.0 (1.4)
Dependency ratio ^b , mean (SD)	1.6 (1.0)	1.7 (0.93)
Household size (persons) ^c , median (IQR)	6.0 (5, 9)	6.0 (5, 8)
Number of children under 5, mean (SD)	1.8 (0.85)	1.9 (0.79)
Children's books in household, mean (SD)	0.69 (1.6)	0.78 (2.3)
Total books in household, mean (SD)	3.8 (6.3)	4.7 (7.1)
^a Wealth quintiles were constructed based on a short series of household asset questions taken from the 2013/2014 Zambian Demographic and Health Survey (DHS)		
^b Dependency ratios were calculated as a total of the household members under 18 divided by the total number of adults aged 18 to 64 years.		

b. Evaluation Question 4

6. What is the status of the older children's cognitive development as measured by the International Development and Early Learning Assessment (IDELA)?

KEY MESSAGES: EVALUATION QUESTION 4

- Preliminary findings suggest the community-based parenting group intervention had a significant positive effect on sibling IDELA scores when controlling for key confounders.
- Preliminary findings from the Zambian Folktales Children's Book intervention suggest a modest impact in the overall z-score and the social-emotional z-scores in the book intervention arm.
- Results are preliminary and must be interpreted with caution; a more detailed analysis is currently underway.

Preliminary findings suggest the CBPG intervention had a significant positive effect on sibling IDELA scores when controlling for child age, child sex, caregiver age, and household wealth ($\beta = 0.12$ [95% CI 0.01 to 0.24]; $p < 0.039$). Most notably, the CBPG treatment group had improved numeracy compared to the standard of care ($\beta = 0.13$ [95% CI 0.02 to 0.25]; $p < 0.022$). Motor, literacy, and social-emotional domains alone were not impacted among older siblings in the CBPG intervention arm.

Preliminary findings from the Zambian Folktales Children's Book intervention suggest a modest impact on the overall z-scores ($\beta = 0.11$ [95% CI -0.01 to 0.23]; $p < 0.061$) and social-emotional z-scores ($\beta = 0.11$ [95% CI 0.00 to 0.23]; $p < 0.053$) in the book treatment arm. Preliminary analysis suggests that there was no significant impact on motor, literacy, or numeracy domains of the IDELA, though results are positive and trending toward significance. These results are preliminary; not all control variables have been accounted for, nor have children's IDELA z-scores at baseline. A complete analysis is underway.

Table 10. Preliminary results: primary outcomes for older siblings at endline, stratified by study arm

	Community-Based Parenting Groups				Book Distribution			
	Unadjusted ^a		Adjusted ^b		Unadjusted ^a		Adjusted ^b	
	OR or β (95% CI)	p-value	OR or β (95% CI)	p-value	OR or β (95% CI)	p-value	OR or β (95% CI)	p-value
IDELA z-scores of older siblings^a, mean (SD)								
Motor	0.03 (-0.08, 0.15)	0.581	0.08 (-0.04, 0.20)	0.166	0.09 (-0.04, 0.23)	0.177	0.08 (-0.04, 0.20)	0.174
Literacy	0.03 (-0.10, 0.17)	0.648	0.07 (-0.06, 0.21)	0.292	0.10 (-0.06, 0.26)	0.237	0.10 (-0.04, 0.23)	0.157
Numeracy	0.07 (-0.05, 0.20)	0.250	0.13 (0.02, 0.25)	0.022	0.11 (-0.03, 0.25)	0.125	0.09 (-0.03, 0.21)	0.123
Social emotional	0.06 (-0.05, 0.19)	0.280	0.11 (0.00, 0.23)	0.060	0.13 (0.00, 0.25)	0.044	0.11 (0.00, 0.23)	0.053
Overall	0.05 (-0.07, 0.18)	0.384	0.12 (0.01, 0.24)	0.039	0.12 (-0.02, 0.26)	0.091	0.11 (-0.01, 0.23)	0.061
^a Unadjusted models control for the stratifying variables used in the randomization procedure (health facility catchment area fixed effects; health zone population size; health zone average birthweight); and endline assessor fixed effects.								
^b Adjusted models control for the following additional variables: child age at endline; child sex; caregiver age; and household wealth quintile.								

c. Evaluation Question 5

5. How does the **Zambian Folktales Children's Book** effect caregiver-child and child-child interactions within the household?

KEY MESSAGES: EVALUATION QUESTION 5
● Preliminary results suggest that most respondents in the book treatment arm reported consistently making the time to read with the young children in their households from the Zambian Folktales Children's Book.
● According to preliminary results, when asked whether they had difficulties making the time to read due to competing priorities, most respondents stated that they did not have trouble finding time to read.
● According to preliminary results, when asked about the usefulness of the book, most respondents described the book as being helpful in preparing their children for school.

Respondents in the book treatment arm were asked to describe their experiences so far with the **Zambian Folktales Children's Book**. The majority of respondents reported consistently making the time to read with the young children in their households. They describe reading as having become a common practice in their home and that different families will find different times throughout the day to read with the children – such as just after eating lunch or before bed. Several respondents also mentioned that other family members in the household, such as older children, are excited to read the book themselves and to the younger children.

When asked whether they had difficulties making the time to read due to competing priorities, the majority of respondents stated that they did not have trouble finding time to read. Two respondents discussed some challenges with finding the time to read to young children due to competing priorities, with one stating that when they personally do not have time to read to the children, the children's grandmother will read to them.

When asked about the usefulness of the book, the majority of respondents described the book as being helpful in preparing their children for school. Several respondents stated that the children's book is helping children to learn reading and writing, while others described it as helping young children learn vocabulary and to identify animals from the drawings in the book.

Table 11. Preliminary results: endline qualitative IDI responses regarding *Zambian Folktales Children’s Book* among respondents in the book treatment arm

Themes	Treatment
Incorporation Into Home Life	1. Reading as a common practice: consistently making the time to read to children in the household; reading has become a common practice in their home; other family members, such as older children, are also excited to read the book themselves and to younger children
Competing Priorities	1. No issue finding time to read
School Preparedness	1. Book helps prepare children for school: helps children learn reading and writing; helps children learn vocabulary and to identify animals
<i>Illustrative Quotes</i>	
a. “The stories which are inside which drives you to be reading more and more.” – Primary caregiver, female, book treatment group b. “Even when I am not available, her older siblings read the book for her. Sometimes on her own she gets the book and starts calling my name so that I read the book for her. She will be like, ‘Mum read for me that part where people are eating something bitter’. Once I start reading, she will be smiling and very excited. When the friends come, she insists they read for her as well. There is a lot of goodness and knowledge in this book.” – Primary caregiver, female, book treatment group c. “The book has helped us because there are a lot of things that we learn it is not just me. There are many who can learn as we stay in this family, what we need to do.” – Primary caregiver, female, book treatment group d. “This book helps to prepare children for school, if you continue teaching the child even at their time of enrollment, they can be well informed already on some subject especially with reading.” – Primary caregiver, female, book treatment group e. “It helps very much because the child will know what is in the book and the child will become intelligent if you teach them how to read and tell stories. Even at school when the teacher will be asking questions the child will be smart.” – Primary caregiver, female, book treatment group f. “In reading the book, there is no challenge. Anytime you want to read, you can read. Sometimes just after eating lunch, you get the book and start reading. Even at night before you go to bed, you just get the book and start reading.” – Primary caregiver, female, book treatment group	

8. DISCUSSION

This report details the key quantitative and qualitative findings from the endline evaluation of the SUPeRCDZ project, implemented by RTC-Z in partnership with BUSPH and Swiss TPHI. Using a cluster-randomized controlled design, in 2019 we enrolled a cohort of 1,108 children aged 0-5 months from unique households and followed them prospectively over a two year period. We were able to follow-up 934 (84.3%) of the children enrolled at baseline two years later in 2021. We sought to determine differences in the primary, intermediary, and secondary outcomes between the control and treatment groups. At endline we also enrolled a sub-cohort of 852 older siblings within the same households to assess the impact of delivering the Zambia Folklores Children's Book intervention on school readiness.

a. Key Findings for Objective 1: To assess the outcomes and effects of the intervention on early childhood development outcomes (as assessed through the index children)

There were no statistically significant differences between the control and treatment groups at baseline regarding characteristics of the index children, primary caregivers, or households. Additionally, there were no differences between the groups in the child's physical development as measured by height-for-age z-scores, cognitive development as measured by the CREDI, child-caregiver interactions, or caregiver mental health status at baseline. At endline, we were able to successfully follow 934 index children, with 15.4% loss to follow-up for the study sample.

Preliminary findings of our intention-to-treat analysis at endline suggest no significant impact of the intervention on our primary outcomes of stunting or cognitive development scores. However, significant impacts was observed in our key intermediary and secondary outcomes including child dietary diversity and caregiver-child interactions, both important behavioral indicators on the theoretical pathway to improved development. Data cleaning and analysis is ongoing to ensure that all control variables are captured and accounted for in our findings.

Because the study was randomized at the zonal level, some contamination was anticipated, meaning that members in the control group may have attended parenting group meetings or heard lessons from friends or relatives that had attended. It is also possible that people in the treatment zones did not attend lessons. Therefore, with continued analysis, the effect of the intervention on those that participated in it (not just living in zones randomized to the intervention) will be examined by looking both at self-report from the impact data, but also by critically examining our process data and attendance records. This analysis will help better understand and interpret the impact findings, identify predictors of participation at the individual level, and understand the dose delivered and received at the individual level. These are all important implementation science analyses critical for understanding in a more nuanced manner if the intervention worked and if so, how to better deliver it.

b. Key Findings for Objective 2: To describe and document the degree to which the Government-supported Zambia Folklores Children’s Book affects child development (as assessed through the older siblings)

At endline a cohort of 852 older siblings was enrolled between the ages of five and eight to assess the impact of delivering the Zambia Folklores book on school readiness. Overall, there were no statistically significant differences in endline child characteristics and baseline household characteristics between the control and treatment groups.

Preliminary findings suggest that the community-based parenting group intervention had a significant positive impact on siblings’ IDELA z-scores. The Zambia Folktales Book intervention had a modest impact on the social-emotional domain of the IDELA and had no impact on the other domains or overall assessment score. We have not yet controlled for children’s scores at baseline, and plan to control for other relevant covariates as we continue analysis.

As noted previously, we intend to examine the effect of the intervention on the treatment group by comparing those that participated in it to those who did not. We plan to use attendance records to triangulate self-reported attendance to parenting groups to understand the treatment received. We also intend to triangulate self-reported book receipt with distribution records. Some individuals in the control group report receiving a book from a friend, family member, or other member of the community, thus receiving the intervention.

Study Strengths and Limitations

This study employed a rigorous design for a two-intervention, four-arm cluster-randomized controlled trial following a cohort of children prospectively over a two-year period. This design allowed for assessment of two different ages of children within the same households to determine the effect of two separate interventions targeted at different age-groups: a parenting group intervention targeted at children 0-5 years of age, and a culturally appropriate children’s book intervention targeted at children before entering Grade 1. Our zonal randomization procedures to study arm (control vs. treatment), combined with the multi-stage random sampling procedures employed at baseline ensured that the cohort of households enrolled into the study were balanced on all potential confounders (see Baseline Report for further information). Additionally, extensive household, caregiver, and child-level data to measure primary, intermediary, and secondary outcomes were collected at baseline and endline. Lastly, an extensive mixed methods process evaluation was conducted to understand implementation fidelity, barriers and facilitators to implementation, and community and implementer perception and adoption of the program. These data are not reported on here, but their results have been distributed in previous reports.

While strong in design, a few limitations to this study remain. Due to the unforeseen and ongoing global COVID-19 pandemic, there were multiple instances of intervention interruption to adhere to Ministry of Health guidelines. At multiple timepoints, national guidelines restricted any gatherings, including parenting groups established through this intervention. However, this only delayed program implementation slightly. When restrictions were lifted, parenting groups resumed meetings, gathering more frequently if needed to cover all curriculum lessons. Additionally, to ensure confidence, safety, and continued participation in the program among group participants, measures were instituted during parenting groups to prevent transmission of COVID-19, including use of handwashing stations and hand sanitizer, meeting outdoors or in well-ventilated spaces, mask wearing, and change of any touch-based activities to no longer require touch.

To increase participant safety during endline data collection and reduce the possibility of transmitting COVID-19 to these dispersed rural communities, data collections were limited to specific geographic areas (assigned specific health facility zones) for the duration of their activities. This may have contributed to the higher-than-

expected ICCs for the main outcome indicators. However, these higher ICCs were likely partially driven by high population correlations generally for these indicators. Additionally, assessor fixed effects were controlled for in the regression models, and the ICCs did not substantially affect the power of the study.

9. CONCLUSION

The preliminary results suggest: (1) no significant impact of the CBPG intervention on primary outcomes stunting and cognitive development, but they do suggest significant impact on all intermediary and many secondary outcomes including child dietary diversity, caregiver-child interactions, and caregiver mental health; (2) modest impact of the Zambian Folktales Book intervention on social-emotional domain of the IDELA with no impact on the other domains or overall assessment scores.

10. REFERENCES

1. Lu C, Black MM, Richter LM. Risk of poor development in young children in low-income and middle-income countries: an estimation and analysis at the global, regional, and country level. *Lancet Glob Heal* [Internet] 2016 [cited 2019 May 2];4(12):916–22. Available from: www.thelancet.com/lancetgh
2. McCoy DC, Peet ED, Ezzati M, et al. Early Childhood Developmental Status in Low-and Middle-Income Countries: National, Regional, and Global Prevalence Estimates Using Predictive Modeling. *PLoS Med* [Internet] 2016 [cited 2019 May 2];13(6). Available from: www.grandchallenges.ca/saving-brains/
3. Walker SP, Wachs TD, Grantham-Mcgregor S, et al. Inequality in early childhood: risk and protective factors for early child development. *Lancet* [Internet] 2011 [cited 2019 May 2];378:1325–38. Available from: www.thelancet.com
4. Central Statistical Office (CSO) [Zambia], Ministry of Health (MOH) [Zambia], ICF International. Zambia Demographic and Health Survey 2013-14 [Internet]. Rockville, Maryland, USA: 2015. Available from: <https://www.dhsprogram.com/pubs/pdf/fr304/fr304.pdf>
5. SUN Movement. The Scaling Up Nutrition (SUN) Movement Annual Progress Report 2018 [Internet]. Geneva: 2018 [cited 2019 May 3]. Available from: https://scalingupnutrition.org/wp-content/themes/elision/pdf/SUNPR-2018/SUN_Report_EN_2018.pdf
6. Hess SY, Abbeddou S, Jimenez EY, Somé JW, Vosti SA, Ouédraogo ZP. Small-Quantity Lipid-Based Nutrient Supplements, Regardless of Their Zinc Content, Increase Growth and Reduce the Prevalence of Stunting and Wasting in Young Burkinabe Children: A Cluster-Randomized Trial. *PLoS One* [Internet] 2015 [cited 2019 May 2];10(3):122242. Available from: <http://dx.doi.org/10.6084/m9.figshare.1301239>
7. Grantham-McGregor S., Powell C., Walker S., Himes J. Nutritional supplementation, psychosocial stimulation, and mental development of stunted children: the Jamaican Study. *Lancet* [Internet] 1991 [cited 2019 May 2];338(8758):1–5. Available from: <https://www.sciencedirect.com/science/article/pii/0140673691900016?via%3Dihub>
8. Powell C, Baker-Henningham H, Walker S, Gernay J, Grantham-Mcgregor S. Feasibility of integrating early stimulation into primary care for undernourished Jamaican children: cluster randomised controlled trial. *BMJ* [Internet] 2004 [cited 2019 May 2];329(7457):89. Available from: <http://www.bmj.com/>
9. Silinskas, Gintautas; Lerkkanen M-K, Tolvanena, Asko; Niemi, Pekka; Poikkeus, Anna-Maija; Nurmi J-E. The frequency of parents' reading-related activities at home and children's reading skills during kindergarten and Grade 1. *J Appl Dev Psychol* 2012;33(6):302–10.
10. Aboud FE, Yousafzai AK. Global Health and Development in Early Childhood. *Annu Rev Psychol* [Internet] 2015 [cited 2019 May 2];66:433–57. Available from: www.un.org/millenniumgoals/pdf/report-2013/mdg-report-2013-english.pdf
11. Yousafzai AK, Rasheed MA, Rizvi A, Armstrong R, Qar Z, Bhutta A. Effect of integrated responsive

- stimulation and nutrition interventions in the Lady Health Worker programme in Pakistan on child development, growth, and health outcomes: a cluster-randomised factorial effectiveness trial. *Lancet* [Internet] 2014 [cited 2019 May 2];384. Available from: <http://dx.doi.org/10.1016/>
12. Lewycka S, Mwansambo C, Rosato M, et al. Effect of women's groups and volunteer peer counselling on rates of mortality, morbidity, and health behaviours in mothers and children in rural Malawi (MaiMwana): a factorial, cluster-randomised controlled trial [Internet]. 2013 [cited 2019 May 2]. Available from: www.maimwana.malawi.net/
 13. Prost A, Colbourn T, Seward N, et al. Women's groups practising participatory learning and action to improve maternal and newborn health in low-resource settings: a systematic review and meta-analysis [Internet]. 2013 [cited 2019 May 2]. Available from: www.thelancet.com
 14. Aboud FE, Singla DR, Borisova I. Effectiveness of a parenting program in Bangladesh to address early childhood health, growth and development. *Soc Sci Med* [Internet] 2013 [cited 2019 May 2];97:250–8. Available from: <http://dx.doi.org/10.1016/j.socscimed.2013.06.020>
 15. Boivin MJ, Bangirana P, Nakasujja N, et al. A Year-Long Caregiver Training Program to Improve Neurocognition in Preschool Ugandan HIV-Exposed Children. *J Dev Behav Pediatr* [Internet] 2013 [cited 2019 May 2];34(4):269–78. Available from: <http://ucobac.org/cms/>
 16. Bass JK, Nakasujja N, Familiar-Lopez I, et al. Association of caregiver quality of care with neurocognitive outcomes in HIV-affected children aged 2-5 years in Uganda. *AIDS Care* [Internet] 2016 [cited 2019 May 2];28(S1):76–83. Available from: <http://dx.doi.org/10.1080/09540121.2016.1146215>
 17. Singla DR, Kumbakumba E, Aboud FE. Effects of a parenting intervention to address maternal psychological wellbeing and child development and growth in rural Uganda: a community-based, cluster-randomised trial. *Lancet Glob Heal* [Internet] 2015 [cited 2019 May 2];3:e458–69. Available from: www.thelancet.com/lancetgh
 18. Fisher WA, Fisher JD, Harman J. The Information-Motivation-Behavioral Skills Model: A General Social Psychological Approach to Understanding and Promoting Health Behavior [Internet]. In: Suls J, Wallston KA, editors. *Social Psychological Foundations of Health and Illness*. Malden, MA, USA: Blackwell Publishing Ltd; 2003 [cited 2019 Jul 15]. p. 82–106. Available from: <http://doi.wiley.com/10.1002/9780470753552.ch4>
 19. Ivers NM, Halperin IJ, Barnsley J, et al. Allocation techniques for balance at baseline in cluster randomized trials: a methodological review. *Trials* 2012;13:1–9.
 20. World Health Organization. *WHO Child Growth Standards: Methods & Development*. Geneva, Switzerland: 2006.
 21. McCoy DC, Sudfeld CR, Bellinger DC, et al. Development and validation of an early childhood development scale for use in low-resourced settings. *Popul Health Metr* [Internet] 2017 [cited 2020 Jan 31];15(1):3. Available from: <http://pophealthmetrics.biomedcentral.com/articles/10.1186/s12963-017-0122-8>
 22. McCoy DC, Waldman M, Field Team C, Fink G. Measuring early childhood development at a global scale: Evidence from the Caregiver-Reported Early Development Instruments. *Early Child Res Q* [Internet] 2018 [cited 2020 Jan 31];45:58–68. Available from: <https://doi.org/10.1016/j.ecresq.2018.05.002>
 23. Waldman M, McCoy DC, Fink G. Validation of Motor, Cognitive, Language, and Socio-emotional Subscales using the Caregiver Reported Early Development Instruments: An Application of Multidimensional Item Factor Analysis. Under Rev
 24. Gladstone M, Lancaster GA, Umar E, Nyirenda M, Kayira E, van den Broek NR, et al. (2010) The Malawi Developmental Assessment Tool (MDAT): The Creation, Validation, and Reliability of a Tool to Assess Child Development in Rural African Settings. *PLoS Med* 7(5): e1000273. <https://doi.org/10.1371/journal.pmed.1000273>
 25. Halpin PF, Wolf S, Yoshikawa H, et al. Measuring early learning and development across cultures: Invariance of the IDELA across five countries. *Dev Psychol* 2019;55(1):23–37.
 26. McCoy DC, Salhi C, Yoshikawa H, Black M, Britto P, Fink G. Home- and center-based learning opportunities for preschoolers in low- and middle-income countries. *Child Youth Serv Rev* 2018;88:44–56.
 27. [Zambia] Central Statistical Office (CSO), [Zambia] Ministry of Health (MOH), ICF International. *Zambia Demographic and Health Survey 2018: Key Indicators*. Rockville, Maryland, USA: 2019.
 28. Beusenbergh M, Orley J. *A user's guide to the Self Reporting Questionnaire (SRQ)*. Geneva, Switzerland: World Health Organization, Division of Mental Health; 1994.
 29. Zimet GD, Dahlem NW, Zimet SG, Farley GK. The Multidimensional Scale of Perceived Social Support. *J*

- Pers Assess 1988;52(1):30–41.
30. Gale NK, Heath G, Cameron E, Rashid S, Redwood S. Using the framework method for the analysis of qualitative data in multi-disciplinary health research. *BMC Med Res Methodol* [Internet] 2013 [cited 2018 Sep 12];13(1):117. Available from: <http://bmcmmedresmethodol.biomedcentral.com/articles/10.1186/1471-2288-13-117>
 31. Vaismoradi M, Turunen H, Bondas T. Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nurs Health Sci* [Internet] 2013 [cited 2018 May 24];15(3):398–405. Available from: <http://doi.wiley.com/10.1111/nhs.12048>

11. ANNEXES

- a. Endline Household Survey Instrument**
- b. Endline In-Depth Interview Instrument**

Instrument ID:

The SUpERCDZ Project

Endline Impact Evaluation – Household Survey **ENGLISH**

Target Audience: Caregiver or guardian of child 24 to approximately 29 months old, enrolled in the baseline impact cohort. Caregiver must be currently ≥ 15 years of age and must have lived within the study catchment areas at baseline.

Data Collector Name: _____

Data Collector ID: _____

Today's Date (DDMMYYYY):

--	--	--	--	--	--	--	--

INSTRUCTIONS: Ensure you and any adult participant are wearing a face mask, that it is worn correctly (covering both nose and mouth), and that you are practicing social distance (at least 1 meter apart from any other person). Children are not required to wear masks.

Introduction to Household

INTERVIEWER: “Your household is being approached because we are following up on a survey that you or someone in this household participated in about two years ago when a child in the household was between 0-5 months of age. At the time, you or someone in this household enrolled in our research study to learn about knowledge and practices related to early childhood development within your community and understand if parenting groups are helpful. This is the follow-up visit we discussed then. We are asking you to voluntarily give us some more information on the child and household.

We will first confirm that you or someone in your household are enrolled in the study and that you or they had previously given informed consent. Are you willing to answer a few short questions to confirm your household previously participated in this study? If we confirm, you will then have the choice to continue with a longer survey either now or at a time that is more convenient for you.

Saying yes to this screening does not mean you have to continue your participation in the study. If you have any questions, please ask them now or at any time you can contact Miss Thandiwe Ngoma at +260-211-253515.”

CONFIRMATORY SCREEN

INSTRUCTIONS: For the confirmatory screen questions below, if you are using SurveyCTO on tablets, the names should be pulled from a preloaded database. If you are using a paper list, find the names of the household head, caregiver, and index child associated with the UID for this household. You must ensure you are at the correct household and interviewing the correct caregiver before proceeding with the survey.

SS0	Please enter the UID for this household that you are attempting to contact today				
SS0a	Have you been notified by the SMAG or someone else in the village that this household has shifted outside of the current zone?	YES (1) NO (0)		If (0), skip to SS1	
SS0b	Are the following individuals still part of the HH in this new location?	HH HEAD CAREGIVER INDEX CHILD	If index child selected, skip to SS2b If index child not selected, ask SMAG where index child now resides. Restart new form when index child is identified and provide new household member information.		
SS1	Is this the household of <i>[HH head name]</i> ?	YES, STILL HEAD OF HOUSEHOLD (1) YES, NO LONGER HEAD OF HOUSEHOLD (2) NO (0)		If (1), skip to SS2	
SS1a	What is the name of the current household head?				
SS2	Is <i>[index child name]</i> born in <i>[month and year of DOB]</i> currently part of this household? <i>If possible confirm DOB from child's Clinic Card. Confirm UID on child's Clinic Card matches what you have.</i>	YES (1) NO, NEVER PART OF HOUSEHOLD (2) NO, SHIFTED (3) NO, CHILD DECEASED (4)		If (1) or (2), skip to SS3. If (3), go to SS2a If (4) skip to SS2f	
SS2a	When did this stop being where <i>[index child name]</i> stayed?	WITHIN THE LAST MONTH (1) WITHIN THE LAST 6 MONTHS (2) WITHIN THE LAST 12 MONTHS (3) WITHIN THE LAST 24 MONTHS (4) OTHER (SPECIFY) (5) _____ DON'T KNOW (96)			
SS2b	Where does <i>[index child name]</i> stay (now)? <i>If within a study district, ask for HFCA, zone, and village name.</i> <i>If outside of study district, ask for province, district, and village name.</i>				
SS2c	What is the name of the household head where <i>[index child name]</i> (now) stays?				
SS2d	Would you be willing to give me the contact details for someone in the household where the child (now) stays?				Continue to question SS3
SS2e	When did <i>[index child name]</i> die?	WITHIN THE LAST MONTH (1) WITHIN THE LAST 6 MONTHS (2) WITHIN THE LAST 12 MONTHS (3)			

		WITHIN THE LAST 24 MONTHS (4) OTHER (SPECIFY) (5) _____ DON'T KNOW (96)	
SS2h	How old was <i>[index child name]</i> when s/he died? <i>Include age in months</i>	MONTHS	
SS2i	What did <i>[index child name]</i> die from?	ASPHYXIA (SUFFOCATION) (1) PNEUMONIA/RESPIRATORY ILLNESS (2) COVID-19/CORONAVIRUS DISEASE (3) SEPSIS (BLOOD INFECTION) (4) DIARRHEA (5) HYPOTHERMIA (TOO COLD) (6) MALARIA (7) ACCIDENT (8) OTHER (SPECIFY) (9) _____ DON'T KNOW (96)	
SS2j	Did <i>[index child name]</i> have a positive COVID-19 test before s/he died?	YES (1) NO (0) DON'T KNOW (96)	
SS3	Is <i>[caregiver name]</i> still the primary caregiver for <i>[index child name]</i> ?	YES, STILL PRIMARY CAREGIVER (1) NO, PRIMARY CAREGIVER CHANGED (0)	If (1) skip to SS4 If (0) go to SS3a
SS3a	What is the name of the primary caregiver for <i>[index child name]</i> ?		
SS3b	When did <i>[new caregiver name]</i> become the primary caregiver for <i>[index child name]</i> ?	WITHIN THE LAST MONTH (1) WITHIN THE LAST 6 MONTHS (2) WITHIN THE LAST 12 MONTHS (3) WITHIN THE LAST 24 MONTHS (4) OTHER (SPECIFY) (5) _____ DON'T KNOW (96)	If (1) ask to speak with <i>[cargiver name]</i> . If (2), (3), or (4), ask to speak with <i>[new caregiver name]</i>
SS3c	Is <i>[caregiver name]</i> available to speak with me?	YES (1) NO (0)	If (1) continue to SS3d with <i>[caregiver name]</i> . If (0) skip to SS4 with <i>[new caregiver name]</i>
SS3d	May I please to speak with <i>[caregiver name]</i> ? INSTRUCTIONS: re-read Introduction to Household Survey above to the current caregiver of the index child.		
SS4	You are eligible to participate in a longer survey. Would you be willing to learn more through informed consent?	YES (1) NO (0)	If (0), skip to SS5
PROCEED WITH CONFIRMING INFORMED CONSENT. PLACE A UNIQUE ID STICKER ON THE CONSENT/ASSENT FORM FOR STUDY RECORDS. INSTRUCTIONS: Make sure to obtain consent (or assent and guardian consent if the caregiver is 15, 16 or 17 years old) from the caregiver, including a signature. If the caregiver is not able to sign, please have the caregiver provide a thumbprint.			
SS5	Was consent granted?	YES (1) NO (0)	If consent was granted, skip to Module A. If consent was NOT granted, ask to reschedule to a more convenient time.

SS6	Would you consider scheduling a more convenient time for us to return to conduct the survey?	YES (1) NO (0)	If (1), reschedule household visit. If (0), continue to SS7.
SS7	If the caregiver has refused to participate in the study and will not reschedule for a more convenient time, please provide the reason why. <i>Select all that apply</i>	NOT INTERESTED (1) HUSBAND NOT AVAILABLE TO PROVIDE PERMISSION (2) DOES NOT HAVE THE TIME (3) UNWILLING BECAUSE OF ANTHROPOMETRY (4) OTHER, SPECIFY (5): _____	If consent was not given, thank the caregiver and end the survey. Do not continue with the rest of the survey.

CONTINUE ONLY IF CONSENT FROM THE CAREGIVER WAS CONFIRMED.

If the participant withdraws from the study at any point, go to question J4 and then enter the reason for withdrawal. Then finalize the work as completed and report the withdrawal to your field coordinator.

MODULE A. LOCATION

INSTRUCTIONS: Complete this section before administering the rest of the survey.

NO.	FIELD	POTENTIAL RESPONSES					
A0	Is this household still located in <i>[village]</i> in <i>[zone]</i> ?	YES (1) NO (0)					
A1	Province	EASTERN (1) SOUTHERN (2)					
A2	District	CHOMA (1) KALOMO (2) PEMBA (3) NYIMBA (4)					
A3	Health Facility Catchment Area	CHOMA DISTRICT MASUKU MISSION (05) MBABALA (06) SIMAKUTU (10) KALOMO DISTRICT CHILALA HC (01) KANCHELE HC (04) MUKWELA HC (08) SIACHITEMA HC (09) PEMBA DISTRICT JEMBO (02) NYIMBA DISTRICT KACHOLOLA RHC (03) MKOPEKA RHC (07)					
A4	Health Facility Zone	CHILALA (01) CHIKANTA (01) HANZEMBWE (02) KAMINYA (03) LUKWATA (04) MOONDE (05) MUFUMBILA (06) MWAPANA (07) MWEEBO (08) NANYEMU (09) SICHIMBWALI (10) STATIC (11) JEMBO (02) BULANDA (12) JALILA (13) JEMBO (14) MAAMBO (15) MICHELO (16) KACHOLOLA (03) CHINYATI (17) KALIUTA (18) KAMILEMBO (19) MAILESI (20) MALILANGWE (21) MOMBE (22) MWANSANIKA (23) MWENGELELE (24) SIVILI (25) TANZYA (26) KANCHELE (04) CHAWILA (27) CHINTAMBA A (28) CHINTAMBA B (29) KALA FARMS (30) KALIDA (31) KALUNDU (32) KANCHELE (33) MABELE (34) MWIITA (35) ZIBANGA (36) MASUKU MISSION (05) CHIPANGA (37) CHUULU (38) MATEMENA (39) MAYAKAYAKA (40) MBULUMWIINGA (41) MUCHENJE (42) SIAMAKANDO (43) SIKAKWA (44) SIKANCHALI (45) SINGUWA (46) MBABALA (06) CENTRAL (47) CHISIKILI (48) HALUMBA (49) KABUMBWE (50) KASAMU (51) MANDAL (52) MAUBWE (53) ROSS (54) MKOPEKA (07) CHOWA (55) KAKWEBE (56) KAPAKASA (57) LUPALA (58) MILLIASI (59) MKOPEKA (60) MTAUSI (61) VIZIMUMBA (62) MUKWELA (08) CONTINENTAL (63) MILDERTON (64) MUKAZIWA (65) MUKWELA (66) SAMONA (67) SOUTH HILL (68) SIACHITEMA (09) CHIBOMBOMA (69) KALISOWE (70) KAPONDO (71) KATETE (72) KATUNDULU (73) NJEZYA (74) SIACHITEMA (75) SIAMABELE (76) SIMBUNJI (77) SIMAKUTU (10) MUCHINDU (78) MWANACHILENGA (79) PATASI (80) SIAMALUBA (81) SIANDIBUBI (82)					
A5	Village name						
INSTRUCTIONS: Take the GPS coordinates twice using your tablet.							
GPS COORDINATES, TAKE 1							
A6	Latitude (decimal degrees format)						
A7	Longitude (decimal degrees format)						
GPS COORDINATES, TAKE 2							
A8	Latitude (decimal degrees format)						
A9	Longitude (decimal degrees format)						
A10	Start time of interview (24:00 format)	<table border="1"> <tr> <td></td> <td></td> <td>:</td> <td></td> <td></td> </tr> </table>			:		
		:					

MODULE B. HOUSEHOLD ENUMERATION

INTERVIEWER: “I am now going to ask you some basic information about you and the members of your household. For the purposes of the following questions, let us define a household as a group of related or unrelated people who usually live together on a premise, acknowledge the same person as the head of the household, and who have a common cooking and eating arrangement.”

NO.	QUESTION	POTENTIAL RESPONSES	SKIP
B1	What is your current role in the household?	HOUSEHOLD HEAD (1) ACTING AS HOUSEHOLD HEAD WHILE HE/SHE IS AWAY/UNAVAILABLE (2) NOT HOUSEHOLD HEAD (3)	If (1), skip to B4.
B2	What is your relationship with the head of the household? <i>The household head is my _____.</i>	SPOUSE (1) FATHER/MOTHER (2) GRANDFATHER/GRANDMOTHER (3) SON/DAUGHTER (4) UNCLE/AUNTIE (5) OTHER, SPECIFY (6): _____	
B3	Sex of current household head?	MALE (0) FEMALE (1)	

INSTRUCTIONS: Only complete B4 through B9 below if SS3 = (0), i.e. the primary caregiver of the index child has changed since baseline.

B4	Sex of current respondent	MALE (0) FEMALE (1)	
B5	How old were you at your last birthday? <i>Unit of response in years.</i>		
B6	Have you ever attended school?	YES (1) NO (0) DON'T KNOW (96)	If (0) or (96), skip to B8
B7	What is the highest grade you completed? <i>Write grade level (i.e. 03 for grade 3). If <1 year completed, write down 00. If >12 years completed, write down 13.</i>	 DON'T KNOW (96)	
B8	What is your religion?	CATHOLIC (1) PROTESTANT (2) SEVENTH DAY ADVENTIST (3) PENTECOSTAL (4) OTHER (SPECIFY) (5): _____ NO RELIGION (6)	
B9	What tribe do you belong to?	TONGA (1) NSENKA (2) NGONI (3) CHEWA (4) BEMBA (5) OTHER (SPECIFY) (6): _____	

INSTRUCTIONS: Complete B10 through B25 for all respondents.

B10	What is your marital status?	MARRIED/COHABITING (1) DIVORCED (2) SEPARATED (3) WIDOWED (4) NEVER MARRIED (5)	
-----	------------------------------	---	--

For the next question, I will ask you to try to read as much of a sentence as you are able to. Some people will be able to read all or part of the sentence, others won't be able to read any of it. It is okay if you are unable to read it. Please do not feel embarrassed. Please try to read whatever you are able to. You can choose which of the four sentences you would like to try to read.

B11	I would like you to read one of these sentences to me. <i>Show literacy card to respondent. Respondent can choose any sentence to read. If respondent cannot read one whole sentence, probe with: Can you read any part of the sentence to me?</i>	CANNOT READ AT ALL (1) ABLE TO READ ONLY PART OF THE SENTENCE (2) ABLE TO READ WHOLE SENTENCE (3) NO CARD WITH REQUIRED LANGUAGE (4) BLIND/VISUALLY IMPAIRED (5)	
B12	How many times have you been pregnant?		
B13	How many live births have you had?		
B14	For how many children under 18 years of age are you currently the primary caregiver?		
B15	Have you been very sick for at least 3 months in the last 12 months that you were too sick to work or do normal activities? <i>Note: These do not have to be consecutive or continuous months.</i>	YES (1) NO (0)	If (0) skip to B17
B16	Did this illness prevent you from providing adequate care to [name]?	YES (1) NO (0)	
B17	Do you have any disability? <i>Select all that apply</i>	NO (0) BLINDNESS/VISUAL IMPAIRMENT (1) HEARING LOSS/HEARING IMPAIRMENT (2) ABNORMAL LIMB (3) CLEFT LIP/PALATE (4) HEART DEFECT (5) NEURAL TUBE DEFECT (E.G. SPINA BIFIDA, ETC) (6) EPILEPSY/SEIZURES (7) DOWN SYNDROME OR OTHER DEVELOPMENTAL PROBLEM (8) MENTAL ILLNESS (9) OTHER (SPECIFY) (10): _____ REFUSED TO ANSWER (11) DON'T KNOW (96)	If (0) skip to B19
B18	Does this disability prevent you from providing adequate care to [name]?	YES (1) NO (0)	
B19	How many boys and girls under the age of 5 usually live in your household? <i>Include children who are in boarding school at the moment. If none, write down 00.</i>	BOYS GIRLS	
B20	How many boys and girls between 5 and 17 years of age usually live in your household? Include yourself if applicable. <i>Include children who are in boarding school at the moment. If none, write down 00.</i>	BOYS GIRLS	
B21	How many men and women 18 years or older usually live in your household? Include yourself if applicable.	MEN WOMEN	
B22	Count and record the total number (B19 to B21) of household members.		

B23	Confirm with respondent: There are a total of <i>[number]</i> people in your household, is that correct?	YES (1) NO (0)	
-----	--	-------------------	--

INTERVIEWER: “Now I am going to ask some additional questions about the children who are 17 years of age and under (ages 0-17) in your household. I will also ask to look at each child’s Under-5 card if they are available.”

INSTRUCTIONS: Start with column A – list all the children 17 years of age and under in the household. Start with the index baby randomly selected before. Then complete the rest of the columns. Follow the skips as relevant.

B24	A	B	C	D	E	F	G	H	I	J	K	L
			Age				Early Childhood Education					
	Name First Name & Surname	Sex MALE (0) FEMALE (1)	Month and year of birth (MM/YYYY) <i>When possible, extract from Child’s Clinic Card</i>	Age in months <i>For children under 2 years only</i> <i>Write 00 if child less than 1 month Skip to F</i>	Age in years <i>For children 2 to 17 years of age</i> <i>Skip to G</i>	What is the birthweight for [name]? <i>For children under 2 years of age, ask to see the child’s clinic card.</i>	Has [name] ever attended formal care (early nursing or education programs) prior to entering school (Grade 1)? YES, NURSERY SCHOOL (1) YES, COMMUNITY SCHOOL (2) NO PRE-GRADE EDUCATION (0) DON’T KNOW (96) <i>IF (0) or (96), skip to column M</i>	What is the name of the early nursing or education programs [name] attends/ attended? <i>List all attended</i>	At what age did [name] begin formal care (early nursing or education programs)? <i>If <1 year, write 00. If don’t know, write 96.</i>	How many years of formal care (early nursing or education programs) did [name] attend? <i>If <1 year, write 00</i>	How many hours per week did [name] attend formal care (early nursing or education programs)? <i>If <1 hour, write 00</i>	Is [name] currently attending early nursing or education programs? YES (1) NO (0) DON’T KNOW (96) <i>Only to be asked for children <8 years</i>
1 (Index)												
2												
3												
4												
5												
6												
7												
8												
9												

B24	A (same as above)	M	N	O	P	Q	R	S	T	U
		Schooling (Skip for children <7 years)					Nutrition Program Participation			
	Name <i>First Name & Surname</i>	Has <i>[name]</i> ever attended school? YES (1) NO (0) IF NO (0), skip to column R	What is the name of the school <i>[name]</i> attends/attended? <i>List all attended</i>	At what age did <i>[name]</i> begin attending school?	What is the highest grade <i>[name]</i> completed? <i>Write 03 for grade 3. If <1 year completed, write 00.</i>	Is <i>[name]</i> currently in school? YES (1) NO (0) DON'T KNOW (96)	In the last 7 days, was <i>[name]</i> given micronutrient powders, pills, sprinkles, or syrup? YES (1) NO (0) DON'T KNOW (96)	In the last 7 days, was <i>[name]</i> given ready to use therapeutic food, such as Plumpy'nut? YES (1) NO (0) DON'T KNOW (96)	Are you the primary caregiver to <i>[name]</i> ? YES (1) NO (0)	How long has <i>[name]</i> been a usual member of this household? < 1 MONTH (1) 1 TO 6 MONTHS (2) 7 TO 12 MONTHS (3) MORE THAN 12 MONTHS (4) DON'T KNOW (96)
1 (Index)										
2										
3										
4										
5										
6										
7										
8										
9										

INSTRUCTIONS: For B25, look at question B24 (household roster) above. Copy the names of all children aged 0-9 in the household in the tables below.

INTERVIEWER: "I have a few additional questions about the children in the household aged 0 to 9 years old."

B25	A	B	C	D	E	F
	Name <i>First Name & Surname</i>	On a typical day (24-hour period), how much time does <i>[name]</i> spend using any electronic screen device (i.e. smart phone, tablet, video game), or watch television, or movies/videos on the internet? <i>Please record this as accurately as you can to the nearest minute</i>	How many hours of sleep does <i>[name]</i> get in a typical 24-hour day (including naps)?	On a scale of 1 to 7, with the higher number indicating higher quality, how would you rate the quality of this child's sleep? <i>1 indicates very difficult to settle, wakes many times during the night for prolonged periods and is very restless (tosses and turns, throw off bedclothes) while 7 indicate settles and drifts off to sleep within a few minutes, sleeps right through the night, and has a very sound, deep sleep. Write 96 for don't know.</i>	On an average DAY (24 hour period) in the past week, how much time did <i>[name]</i> spend in a variety of physical activities, spread throughout the day? <i>E.g. playing, running, walking, swimming, etc.</i>	On an average DAY (24 hour period) in the past week, how much time did <i>[name]</i> spend in energetic play that causes him/her to "huff and puff" and increases his/her heart rate? <i>This would be part of the total time spent in a variety of activities that you just mentioned</i>
1 (Index)		Hours Minutes	Hours Minutes		Hours Minutes	Hours Minutes
2		Hours Minutes	Hours Minutes		Hours Minutes	Hours Minutes
3		Hours Minutes	Hours Minutes		Hours Minutes	Hours Minutes
4		Hours Minutes	Hours Minutes		Hours Minutes	Hours Minutes
5		Hours Minutes	Hours Minutes		Hours Minutes	Hours Minutes
6		Hours Minutes	Hours Minutes		Hours Minutes	Hours Minutes

MODULE C. HOUSEHOLD ASSETS

INTERVIEWER: “Now let’s discuss some information about your house and things you own.”

NO.	QUESTION	POTENTIAL RESPONSES	SKIP	
C1	Does the household have any soap in the house now for handwashing?	YES (1) NO (0) DON'T KNOW (96)		
C2	Did all pregnant women sleep under a mosquito net last night?	YES (1) NO, BUT SOME DID (2) NO, NONE DID (3) N/A, NO PREGNANT WOMEN IN HOUSEHOLD (97) DON'T KNOW (96)		
C3	Did all children <5 years of age sleep under a mosquito net last night?	YES (1) NO, BUT SOME DID (2) NO, NONE DID (3) N/A, NO CHILDREN <5 YEARS IN HOUSEHOLD (97) DON'T KNOW (96)		
C4	In the past 30 days was there ever no food to eat of any kind in your house because of lack of resources to get food?	YES, THERE WERE DAYS WITHOUT FOOD (1) NO, WE ALWAYS HAD FOOD (0)	If (0), skip to C6	
C5	<i>If Yes to C4, how often did this happen in the past 30 days?</i>	RARELY (1-2) (1) SOMETIMES (3-10) (2) OFTEN (11+) (3) DON'T KNOW (96)		
C6	In the past 30 days did you or any household member go to sleep at night hungry because there was not enough food?	YES (1) NO (0) DON'T KNOW (96)	If (0), skip to C8	
C7	<i>If Yes to C6, how often did this happen in the past 30 days?</i>	RARELY (1-2) (1) SOMETIMES (3-10) (2) OFTEN (11+) (3) DON'T KNOW (96)		
C8	Does your household have any of the following? <i>Note: item must be functioning usually</i>	YES (1)	NO (0)	DON'T KNOW (96)
	A ELECTRICITY	☐	☐	☐
	B MOSQUITO NET	☐	☐	☐
	C TELEVISION	☐	☐	☐
	D MOBILE PHONE	☐	☐	☐
	E BICYCLE	☐	☐	☐
	F MOTORCYCLE/MOTOR SCOOTER	☐	☐	☐
	G ANIMAL-DRAWN CART	☐	☐	☐
	H CAR/TRUCK	☐	☐	☐

NO.	QUESTION	POTENTIAL RESPONSES	SKIP
C9	If your household wanted to borrow money from a bank or other formal financial service provider, would your household be able to borrow money? <i>Note: not including friends or relatives</i>	NO (0) PROBABLY NOT (1) PROBABLY YES (2) DEFINITELY YES (3) DON'T KNOW (96)	

MODULE D. CHILD HEALTH AND NUTRITION (INDEX CHILD)

INSTRUCTIONS: Use the Under-5 Card to answer questions D1 through D11. If the caregiver is not able to provide the Under-5 card, choose 'No' for D1, but get as much information from the primary caregiver regardless. Start with the first section on the card "CHILD PARTICULARS" and follow through the other card sections.

INTERVIEWER: "Now I'm going to ask you some questions about [index child name]. Do you have [index child name]'s Under-5 Card (clinic card) that I may look at?"

NO.	QUESTION	POTENTIAL RESPONSES	SKIP				
D1	Interviewer: Are you able to look at the child's Under-5 (Clinic) Card?	YES (1) NO (0)					
D2	What was [name]'s place of birth?	HEALTH FACILITY/HEALTH POST (1) HOSPITAL (2) YOUR HOME (3) ANOTHER'S HOME (4) ON THE WAY TO A FACILITY/ON THE ROAD (5) OTHER (SPECIFY) (6) _____					
D3	What was [name]'s birth weight? <i>Note: Choose unit of measurement</i>	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table> Grams (1) Kilograms (2)					
D4	At time of birth, was the following present? <i>Based on Under-5 card tick box</i>	YES (1) <i>Ticked on Under-5 Card and/or caregiver response</i>	NO (0) <i>Not ticked on Under-5 Card and/or caregiver response</i>	DON'T KNOW (96) <i>No card/missing/caregiver doesn't know</i>			
	A Birth weight less than 2.5 kgs	☐	☐	☐			
D5	Has [name] received any deworming treatments?	YES, 1 treatment (1) YES, 2 treatments (2) YES, more than 2 treatments (3) NO (0)					

INSTRUCTIONS: If available, use the Under-5 card to confirm the vaccines received and mark below. If card is unavailable, ask mother which vaccines the child has received. **For our purposes it does not matter if the child received the vaccine late.**

D6	Did [name] receive:	RECEIVED <i>On under-5 card or caregiver response</i>	NOT RECEIVED <i>Not on under-5 card or caregiver response</i>	DON'T KNOW (96) <i>No card/missing/caregiver doesn't know</i>
	A BCG (TB Vaccine)	☐	☐	☐
	B Polio (OPV-0) (Oral Polio Vaccine)	☐	☐	☐
	C Polio (OPV-1)	☐	☐	☐
	D Polio (OPV-2)	☐	☐	☐
	E Polio (OPV-3)	☐	☐	☐
	F Polio (OPV-4)	☐	☐	☐
	G Pneumococcal (PCV-1) (Pneumonia Vaccine)	☐	☐	☐
	H Pneumococcal (PCV-2)	☐	☐	☐
	I Pneumococcal (PCV-3)	☐	☐	☐
	J DPT-HepB-Hib-1 (Diphtheria, Pertussis, Tetanus, Hepatitis B, Haemophilus influenzae type b)	☐	☐	☐
	K DPT-HepB-Hib-2	☐	☐	☐
	L DPT-HepB-Hib-3	☐	☐	☐

	M	Measles 1	☐	☐	☐																															
	N	Measles 2	☐	☐	☐																															
	O	Rotavirus-1	☐	☐	☐																															
	P	Rotavirus-2	☐	☐	☐																															
NO.	QUESTION		POTENTIAL RESPONSES			SKIP																														
D7	Did [name] receive any vitamin A supplementation?		YES (1) NO (0) NO CARD/MISSING/CAREGIVER DOESN'T KNOW (96)			If (0) or (96), skip to D10																														
D8	If yes, how many times did [name] receive vitamin A supplementation? <i>Count the number of dates entered for Vitamin A supplementation on the clinic card. If NO CARD OR MISSING FROM CARD, AND CAREGIVER DOESN'T KNOW, record 96.</i>					If (00) or (96), skip to D10																														
D9	Based on the number provided in D8, include the associated dates: <i>Use the date format: dd/mm/yy</i>		1. 2. 3. 4. 5. <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 16.6%; height: 30px;"></td><td style="width: 16.6%; height: 30px;"></td><td style="width: 16.6%; height: 30px;"></td><td style="width: 16.6%; height: 30px;"></td><td style="width: 16.6%; height: 30px;"></td><td style="width: 16.6%; height: 30px;"></td></tr> <tr><td style="height: 30px;"></td><td style="height: 30px;"></td><td style="height: 30px;"></td><td style="height: 30px;"></td><td style="height: 30px;"></td><td style="height: 30px;"></td></tr> <tr><td style="height: 30px;"></td><td style="height: 30px;"></td><td style="height: 30px;"></td><td style="height: 30px;"></td><td style="height: 30px;"></td><td style="height: 30px;"></td></tr> <tr><td style="height: 30px;"></td><td style="height: 30px;"></td><td style="height: 30px;"></td><td style="height: 30px;"></td><td style="height: 30px;"></td><td style="height: 30px;"></td></tr> <tr><td style="height: 30px;"></td><td style="height: 30px;"></td><td style="height: 30px;"></td><td style="height: 30px;"></td><td style="height: 30px;"></td><td style="height: 30px;"></td></tr> </table>																																	
D10	Approximately how many times have you brought [name] to the clinic for a well-baby check-up? This includes for vaccines and growth monitoring but does not include visits when [name] was ill.																																			
D11	Instructions: Count the number of growth monitoring entries on child's clinic card and record the number.					If no card available, skip to D12																														
INSTRUCTIONS: Ask the next set of questions to the primary caregiver. No more questions require the Under-5 card. INTERVIEWER: "I would now like to ask you about whether [name]'s relatives are currently alive. These may be hard for you. Please take your time to respond and we can pause at any time."																																				
NO.	QUESTION		POTENTIAL RESPONSES			SKIP																														
D12	What is your relationship to [name]? <i>I am [name]'s _____.</i>		MOTHER (BIOLOGICAL) (1) GRANDMOTHER (2) AUNTIE (3) SISTER (4) COUSIN (5) FAMILY FRIEND/NEIGHBOR (6) OTHER (SPECIFY) (7) _____			If (1), skip to D16																														
D13	Is [name]'s mother currently alive?		YES (1) NO (0) DON'T KNOW (96)			If (1) or (96), skip to D16																														
D14	If no, when did she die?		ON DAY OF CHILD'S BIRTH (1) WITHIN 1 MONTH AFTER CHILD'S BIRTH (2)																																	

		WITHIN THE LAST 12 MONTHS AFTER CHILD'S BIRTH (3) WITHIN 24 MONTHS AFTER CHILD'S BIRTH (4) OTHER (SPECIFY) (5) _____ DON'T KNOW (96)	
D15	What was her cause of death? <i>If illness, probe for type of illness and positive COVID-19 test before death; record.</i>	ILLNESS (SPECIFY) (1) _____ ACCIDENT (2) ACT OF VIOLENCE (3) OTHER (SPECIFY) (4) _____	
D16	Is [name]'s father currently alive?	YES (1) NO (0) DON'T KNOW (96)	If (1) or (96), skip to D19
D17	If no, when did he die?	BEFORE DAY OF CHILD'S BIRTH (1) WITHIN THE LAST 12 MONTHS AFTER CHILD'S BIRTH (2) WITHIN 24 MONTHS AFTER CHILD'S BIRTH (3) OTHER (SPECIFY) (4) _____ DON'T KNOW (96)	
D18	What was his cause of death? <i>If illness, probe for type of illness and positive COVID-19 test before death; record.</i>	ILLNESS (SPECIFY) (1) _____ ACCIDENT (2) ACT OF VIOLENCE (3) OTHER (SPECIFY) (4) _____	

INTERVIEWER: "I would now like to ask you some questions about [name's] nutrition and eating."

NO.	QUESTION	POTENTIAL RESPONSES	SKIP
D19	Was [name] ever breastfed?	YES (1) NO (0) DON'T KNOW (96)	If (0) or (96), skip to D25
D20	How long after birth was [name] first put to the breast? <i>If less than 1 hour, record '00' hours; if less than 24 hours, record hours; otherwise, record days. If not applicable, record '97;' If don't know, record '96.'</i>	Hours Days	
D21	In the first three days after delivery, was [name] given anything to drink other than breast milk? (ie: water, cooking oil, formula, etc)	YES (1) NO (0) DON'T KNOW (96)	
D22	Is [name] still breastfeeding?	YES (1) NO (0) DON'T KNOW (96)	
D23	How old was [name] when you first gave him/her water or other liquids? <i>If child <1 month old, write 00. If don't know, write 96.</i>	Months	
D24	How old was [name] when you first gave him/her porridge, fruits, or other food? <i>If child <1 month old, write 00. If don't know, write 96.</i>	Months	

INSTRUCTIONS: Read the questions below. Read the list of liquids to the caregiver one by one and mark yes, no, or don't know, ACCORDINGLY.

INTERVIEWER: "Next I would like to ask you questions about liquids or foods that [name] may have had yesterday during the day or night. "

D25	Did [name] have any item from list?	YES (1)	NO (0) / DON'T KNOW
	A Plain water?	☐	☐
	B Juice or juice drinks?	☐	☐

C	Clear broth?	☐	☐
D	Milk such as tinned, powdered, or fresh animal milk?	☐	☐
E	Infant formula?	☐	☐
F	Any other liquids?	☐	☐
G	Light/thin porridge?	☐	☐
H	Yogurt or sour milk?	☐	☐
I	Any Provita, Delight, Cerelac, Soya Porridge?	☐	☐
J	Bread, rice, noodles, porridge, nshima or other foods made from grains?	☐	☐
K	Pumpkin (not including leaves), carrots, squash or sweet potatoes that are yellow or orange inside?	☐	☐
L	White potatoes, yams, cassava, or any other foods made from roots?	☐	☐
M	Any dark green, leafy vegetables, cassava leaves, rape, sweet potato leaves, or spinach?	☐	☐
N	Ripe mangoes, paw paw, apricot, or watermelon?	☐	☐
O	Any other fruits or vegetables?	☐	☐
P	Liver, kidney, heart or other organ meats?	☐	☐
Q	Any meat such as beef, pork, lamb, goat, chicken, duck, field mice, or soya pieces?	☐	☐
R	Eggs?	☐	☐
S	Fresh or dried fish or shellfish?	☐	☐
T	Any foods made from beans, peas, lentils, groundnuts, or other nuts?	☐	☐
U	Cheese or other food made from milk?	☐	☐
V	Any caterpillars, other insects or other small protein foods?	☐	☐
W	Any other solid, semi-solid, or soft food?	☐	☐
X	Oil, vegetable oil, or butter (including food made with it)?	☐	☐

INTERVIEWER: "I will now ask you questions regarding health services [name] may have recently received."			
NO.	QUESTION	POTENTIAL RESPONSES	SKIP
D26	Has [name] had fever in the past two weeks ?	YES (1) NO (0) DON'T KNOW (96)	If (0) or (96), skip to D30
D27	If Yes to D26: Did you take [name] anywhere to address the fever?	YES (1) NO (0) DON'T KNOW (96)	If (1), continue to D28 If (0), skip to D29 If (96), skip to D30
D28	If Yes to D27: Where did you first take [name] for care?	HEALTH FACILITY/HEALTH POST (1) HOSPITAL (2) COMMUNITY HEALTH WORKER/SMAG (3) PHARMACY (4) TRADITIONAL HEALER (5) OTHER (SPECIFY) (6): _____	Skip to D30
D29	If No to D27: Why did you not seek care for [name]? Select all that apply	NO MONEY (1) NO TIME (2) DIDN'T THINK IT WAS SEVERE (3) DIDN'T KNOW WHERE TO GO (4) OTHER (SPECIFY) (5) _____	

D30	Has <i>[name]</i> had diarrhea in the past two weeks ?	YES (1) NO (0) DON'T KNOW (96)	If (0) or (96), skip to D35
D31	How was child fed/breastfed during the diarrhea?	MUCH LESS THAN USUAL (1) SOMEWHAT LESS (2) ABOUT THE SAME (3) MORE THAN USUAL (4)	
D32	Did you take <i>[name]</i> anywhere to address the diarrhea?	YES (1) NO (0) DON'T KNOW (96)	If (1), continue to D33 If (0), skip to D34 If (96), skip to D35
D33	<i>If Yes to D32:</i> Where did you first take <i>[name]</i> for care?	HEALTH FACILITY/HEALTH POST (1) HOSPITAL (2) COMMUNITY HEALTH WORKER/SMAG (3) PHARMACY (4) TRADITIONAL HEALER (5) OTHER (SPECIFY) (6): _____	
D34	<i>If No to D32:</i> Why did you not seek care for <i>[name]</i> ? <i>Select all that apply</i>	NO MONEY (1) NO TIME (2) DIDN'T THINK IT WAS SEVERE (3) DIDN'T KNOW WHERE TO GO (4) OTHER (SPECIFY) (5) _____	
D35	Has <i>[name]</i> had difficulty breathing and/or cough in the past two weeks ?	YES (1) NO (0) DON'T KNOW (96)	If (0) or (96), skip to D39
D36	<i>If Yes to D35:</i> Did you take <i>[name]</i> anywhere to address the difficulty breathing/cough?	YES (1) NO (0) DON'T KNOW (96)	If (1), continue to D37 If (0), skip to D38 If (96), skip to D39
D37	<i>If Yes to D36:</i> Where did you first take <i>[name]</i> for care?	HEALTH FACILITY/HEALTH POST (1) HOSPITAL (2) COMMUNITY HEALTH WORKER/SMAG (3) PHARMACY (4) TRADITIONAL HEALER (5) OTHER (SPECIFY) (6): _____	Skip to D39
D38	<i>If No to D36:</i> Why did you not seek care for <i>[name]</i> ? <i>Select all that apply</i>	NO MONEY (1) NO TIME (2) DIDN'T THINK IT WAS SEVERE (3) DIDN'T KNOW WHERE TO GO (4) OTHER (SPECIFY) (5) _____	
D39	Did <i>[name]</i> sleep under a bed net last night?	YES (1) NO (0) DON'T KNOW (96)	

MODULE E. CHILD DEVELOPMENT & STIMULATION (INDEX CHILD)

INSTRUCTIONS: If caregiver provides 5 “NO” responses in a row in the list below, skip to E2 (next table).

INTERVIEWER: “Now I am going to ask you about the types of thing [name] is currently able to do. Please answer “YES” or “NO” to these questions. If you are unsure, you can also answer by saying “DON’T KNOW.” Please keep in mind that children learn and grow at different rates, so it is fine if [name] can’t yet do these things. Some of these skills children only achieve at older ages. If there is any question you feel uncomfortable answering, please let me know and we can move to the next question.”

E1	Please respond to the following questions about what [name] is currently able to do:	YES (1)	NO (0)	DON'T KNOW (96)
A	Can the child sit or play on his/her own for at least 20 minutes?	☐	☐	☐
B	Can the child walk several steps on his/her own, without holding on or receiving support? <i>Show illustration</i>	☐	☐	☐
C	Can the child bend down to the ground and stand up again without falling and without holding onto a person or object? <i>Show illustration</i>	☐	☐	☐
D	Does the child ask you for help using signs or words when he/she cannot do something on his/her own (e.g., to reach an object up high)?	☐	☐	☐
E	Does the child try to repeat sounds or words said by other people?	☐	☐	☐
F	Can the child climb onto an object such as a chair or bench? <i>Show illustration</i>	☐	☐	☐
G	Can the child figure out how to turn a spoon or object if you give it to him/her the wrong way around?	☐	☐	☐
H	Does the child stop at least briefly when told “no” or “stop that”?	☐	☐	☐
I	Can the child kick a ball or other round object forward using his/her foot? <i>Show illustration</i>	☐	☐	☐
J	Can the child point to a person or object when asked (e.g., “Where is mama?” or “Where is the ball?”)?	☐	☐	☐
K	Can the child drink from a cup (without a lid) on his/her own without spilling? <i>Show illustration</i>	☐	☐	☐
L	Does the child imitate animal or other sounds (e.g., “vroom” for a car, “moo” for a cow)?	☐	☐	☐
M	Can the child run more than a few steps without falling or bumping into objects? <i>Show illustration</i>	☐	☐	☐
N	Can the child draw a line or shape on paper with a pen or crayon, or in the dirt with a stick? <i>Show illustration</i>	☐	☐	☐
O	Can the child answer simple questions (e.g., “Do you want water?”) by saying “yes” or “no”, rather than nodding?	☐	☐	☐

P	Can the child stack three or more small objects (e.g., blocks, cups, bottle caps) on top of each other? <i>Show illustration</i>	☐	☐	☐
Q	Does the child imitate others' behaviors (e.g., washing hands or dishes)?	☐	☐	☐
R	Does the child sometimes share things (e.g., food, toys) with others without being told?	☐	☐	☐
S	Can the child follow orders or instructions that have more than one part (e.g., "Go get water and go to bed")?	☐	☐	☐
T	Can the child say five or more separate words (e.g., names like "Mama" or objects like "ball")?	☐	☐	☐
U	Is the child kind to younger children (e.g., speaks to them nicely and touches them gently)?	☐	☐	☐
V	Can the child walk on an uneven surface (e.g., a bumpy or steep road) without falling? <i>Show illustration</i>	☐	☐	☐
W	Does the child listen to someone telling a story with interest?	☐	☐	☐
X	Can the child ask for something (e.g., food, water) by name when he/she wants it?	☐	☐	☐
Y	Does the child involve others in play (i.e., play interactive games with other children)?	☐	☐	☐
Z	Can the child correctly name at least one family member other than mom and dad (e.g., name of brother, sister, aunt, uncle)?	☐	☐	☐
AA	Does the child play by pretending objects are something else (e.g., imagining a bottle is a doll, a stone is a car, or a spoon is an airplane)?	☐	☐	☐
AB	Does the child show sympathy or look concerned when others are hurt or sad?	☐	☐	☐
AC	Can the child walk backwards? <i>Show illustration</i>	☐	☐	☐
AD	Does the child show curiosity to learn new things (e.g., by asking questions or exploring a new area)?	☐	☐	☐
AE	Can the child feed him/herself using a spoon or other utensil without spilling? <i>Show illustration</i>	☐	☐	☐
AF	Can the child concentrate on one task (e.g., playing with friends, eating meal) for 20 minutes?	☐	☐	☐
AG	Does the child know the names of at least two body parts (e.g., arm, eye, or nose)?	☐	☐	☐
AH	If you show the child an object he/she knows well (e.g., a cup or animal), can he/she consistently name it?	☐	☐	☐
AI	Can the child speak using short sentences of two words that go together (e.g., "Mama go" or "Dada eat")?	☐	☐	☐
AJ	Can the child use a tool (e.g., a stick or spoon) to reach objects that are far away?	☐	☐	☐

AK	Can the child indicate when he/she needs to go to the toilet?	☐	☐	☐
AL	Can the child say ten or more separate words (e.g., names like "Mama" or objects like "ball")?	☐	☐	☐
AM	Can the child remove an item of clothing (e.g., take off his/her shirt)?	☐	☐	☐
AN	Can the child tell you when he/she is tired or hungry?	☐	☐	☐
AO	Does the child usually finish an activity he/she enjoys (e.g., a game or book)?	☐	☐	☐
AP	Can the child easily switch back and forth between activities (e.g., go back to a game after being interrupted)?	☐	☐	☐
AQ	Can the child sing a short song or repeat parts of a rhyme from memory by him/herself?	☐	☐	☐
AR	Can the child jump with both feet leaving the ground?	☐	☐	☐
AS	Can the child speak using sentences of three or more words that go together (e.g., "I want water" or "The house is big")?	☐	☐	☐
AT	Can the child whisper?	☐	☐	☐
AU	Does the child greet neighbors or other people he/she knows without being told (e.g., by saying hello or gesturing hello)?	☐	☐	☐
AV	Can the child unscrew the lid from a bottle or jar?	☐	☐	☐
AW	Can the child correctly ask questions using any of the words "what," "which," "where," or "who"?	☐	☐	☐
AX	Can the child correctly use any of the words "I," "you," "she," or "he" (e.g., "I go to store," or "He eats rice")?	☐	☐	☐
AY	Does the child pronounce most of his/her words correctly?	☐	☐	☐
AZ	Can the child count up to five objects (e.g., fingers, people)?	☐	☐	☐
BA	Does the child ask about familiar people other than parents when they are not there (e.g., "Where is the neighbor")?	☐	☐	☐
BB	If you show the child two objects or people of different size, can he/she tell you which one is the big one and which is the small one?	☐	☐	☐
BC	Can the child stand on one foot for several seconds without holding on to a person or object (e.g., wall or furniture)?	☐	☐	☐
BD	Can the child identify at least one color (e.g., red, blue, yellow)?	☐	☐	☐
BE	Does the child regularly use describing words such as "fast," "short," "hot," "fat," or "beautiful" correctly?	☐	☐	☐
BF	If you point to an object, can the child correctly use the words "on," "in," or "under" to describe where it is (e.g., "The cup is on the table" instead of "The cup is in the table.")	☐	☐	☐

BG	Can the child explain in words what common objects like a cup or chair are used for?	☐	☐	☐
BH	Can the child dress him/herself (e.g., put on his/her pants and shirt without help)?	☐	☐	☐
BI	Does the child ask "why" questions (e.g., "Why are you tall?")?	☐	☐	☐
BJ	If you ask the child to give you three objects (e.g., stones, beans), does the child give you the correct amount?	☐	☐	☐
BK	Does the child usually put objects or toys back where they belong after using them?	☐	☐	☐
BL	Does the child frequently act impulsively or without thinking (e.g., running into the street without looking)?	☐	☐	☐
BM	Does the child sometimes save things like candy or new toys for the future?	☐	☐	☐
BN	Can the child say what others like or dislike (e.g., "Mama doesn't like fruit," "Papa likes football")?	☐	☐	☐
BO	Can the child fasten and unfasten buttons without help?	☐	☐	☐
BP	Can the child talk about things that will happen in the future using correct language (e.g., "Tomorrow he will attend school" or "Next week we will go to the market")?	☐	☐	☐
BQ	Can the child talk about things that have happened in the past using correct language (e.g., "Yesterday I played with my friend" or "Last week she went to the market")?	☐	☐	☐
BR	Does the child know the names of any letters (e.g., A, B,C)?	☐	☐	☐

INTERVIEWER: "We are interested in knowing the kinds of things you and your children do in the home on a regular basis. I'm going to ask you questions about you and [name]."

NO.	QUESTION	POTENTIAL RESPONSES		SKIP
E2	How many children's toys are there in your household in total? <i>Toys can be store-bought or homemade. Store-bought means anything purchased outside of the house. This can be a wire car purchased from a market, not only factory made toys.</i>			If 0, skip to E2
E3	Are the toys store-bought or homemade?	PRIMARILY STORE BOUGHT (1) HALF STORE BOUGHT/HALF HOMEMADE (2) PRIMARILY HOMEMADE (3) DON'T KNOW (96)		
E4	Children play with a lot of different things. What kinds of things do you have that children play with?	YES (1)	NO (0)	DON'T KNOW (96)
	A. Toys made by an adult	☐	☐	☐
	B. Household objects	☐	☐	☐
	C. Materials from outside the house (e.g. sticks, rocks, animals, shells, leaves, etc)	☐	☐	☐
	D. Toys that make music	☐	☐	☐
	E. Toys for building things	☐	☐	☐

	F. Things for drawing and writing	☐	☐	☐
	G. Things for moving a lot, like balls, rattles, bat, hopping rope	☐	☐	☐
	H. Toys for pretending like dolls, sticks for animals, pretend cups, plates	☐	☐	☐
	I. Other thing child plays with SPECIFY: _____	☐	☐	☐

E5	In the past 3 days, did you or any household member engage in any of the following activities with [name]? <i>Select all that apply</i>	YES, MOTHER (1)	YES, FATHER (2)	YES, OLDER SIBLING 15+ YEARS (3)	YES, SOMEONE ELSE 15+ YEARS (4)	YES, SOMEONE ELSE LESS THAN 15 YEARS (5)	NO ONE (6)
	A Read books or looked at picture books with [name]? ☐	☐	☐	☐	☐	☐	☐
	B Told stories to [name]? ☐	☐	☐	☐	☐	☐	☐
	C Sang songs to or with [name], including lullabies? ☐	☐	☐	☐	☐	☐	☐
	D Took [name] outside the home, compound, yard, or enclosure? ☐	☐	☐	☐	☐	☐	☐
	E Played with [name]? ☐	☐	☐	☐	☐	☐	☐
	F Named, counted, or drew things to or with [name]? ☐	☐	☐	☐	☐	☐	☐

E6	In the past 7 days, on how many days did you or any other adult family member do the following with [name]? <i>If no one did this activity in the past 7 days, record 00. If the caregiver doesn't know, record 96.</i>		
	A Read books or looked at picture books with [name]?		Days
	B Told stories to [name]?		Days
	C Sang songs to or with [name], including lullabies?		Days
	D Took [name] outside the home, compound, yard, or enclosure?		Days
	E Played with [name]?		Days
	F Named, counted, or drew things to or with [name]?		Days

INTERVIEWER: "I am interested in knowing more about the books you have in your household. Would you please collect all of the books (including children's school books) in the household for me to look at briefly?"

INSTRUCTIONS: Answer the following questions based on the books you were provided

NO.	QUESTION	POTENTIAL RESPONSES	SKIP
E7	About how many children's books or picture books do you have for [name]?	NONE (1) 1-2 BOOKS (2) 3-5 BOOKS (3) 6-9 BOOKS (4) 10-19 BOOKS (5) 20 OR MORE BOOKS (6)	

E8	How many other books are there in the household? <i>e.g school books, adult-focused books, bibles and other religious books</i>	NONE (1) 1-2 BOOKS (2) 3-5 BOOKS (3) 6-9 BOOKS (4) 10-19 BOOKS (5) 20 OR MORE BOOKS (6)	
E9	Do you know about the Zambian Folktales Children's Book? <i>Check to see if the children's book is included in the ones provided</i>	YES (1) NO (0) DON'T KNOW (96)	If (0) or (96) skip to Module F
E10	Did you ever receive a copy of the Zambian Folktales Children's Book?	YES (1) NO (0) DON'T KNOW (96)	If (0) or (96) skip to Module F
E11	If yes to E10, how many copies did you receive?		
E12	If yes to E10, who did you receive the book(s) from? <i>If more than one copy, select all that apply</i>	COMMUNITY-BASED VOLUNTEER (E.G. SMAG, CHW, ETC) (1) HEAD MOTHER/FATHER IMPLEMENTING THE PARENTING GROUPS (2) FAMILY MEMBER (3) NEIGHBOR/FRIEND (4) DON'T KNOW (96)	
E13	Do you still have (at least one) copy of the book in the house today?	YES (1) NO (0) DON'T KNOW (96)	IF (1) GO TO E14, IF (0) OR (96) SKIP TO E15
E14	What condition is the book currently in?	INTACT AND USABLE (1) TORN, MISSING PAGES, OR SLIGHTLY DAMAGED (2) SIGNIFICANTLY DAMAGED/UNREADABLE (3) OTHER (SPECIFY) (4) _____ DON'T KNOW (96)	SKIP TO E16
E15	If No to E13, what happened to the copy of the book you received?	SEVERELY DAMAGED (1) LOST/STOLEN (2) LENT TO OTHER HOUSEHOLD (3) OTHER (SPECIFY) (4) _____ DON'T KNOW (96)	SKIP TO E17

E16	In the past 3 days, did you or any household member engage in any of the following activities with any children under 10? <i>Select all that apply</i>	YES, MOTHER (1)	YES, FATHER (2)	YES, OLDER SIBLING 15+ YEARS (3)	YES, SOMEONE ELSE 15+ YEARS (4)	YES, SOMEONE ELSE LESS THAN 15 YEARS (5)	NO ONE (6)
A	Read from the Zambian Folktales Children's Book?	☐	☐	☐	☐	☐	☐
B	Looked at pictures from the Zambian Folktales Children's Book?	☐	☐	☐	☐	☐	☐
C	Sang songs from the Zambian Folktales Children's Book?	☐	☐	☐	☐	☐	☐
D	Told stories from the Zambian Folktales Children's Book?	☐	☐	☐	☐	☐	☐
NO.	QUESTION	POTENTIAL RESPONSES					
E17	How is the book primarily used in this household?	NO ONE READS (1)					

	Select all that apply <i>If the household no longer has the book, ask how the book was primarily used when they had it.</i>	I READ TO MY CHILD(REN) (2) MY HUSBAND/PARTNER READS TO MY CHILD(REN) (3) ANOTHER ADULT IN THE HOUSEHOLD READS TO MY CHILD(REN) (4) MULTIPLE READ TOGETHER AS A GROUP WITH THE CHILD(REN) (5) NEIGHBORS/FRIENDS/FAMILY OUTSIDE THE HOUSEHOLD READ TO MY CHILD(REN) (6) OLDER CHILD(REN) READ THE BOOK TO YOUNGER CHILD(REN) (7) YOUNG CHILD(REN) LOOK AT THE PICTURES TOGETHER (8) MY CHILD(REN) LOOKS AT THE PICTURES ALONE (9) OTHER (SPECIFY) (10) _____			
E18	To what degree do you agree or disagree with the following statements about the <i>Zambian Folktales Children's Book</i> ?	DISAGREE COMPLETELY (1)	DISAGREE A LITTLE BIT (2)	AGREE A LITTLE BIT (3)	AGREE COMPLETELY (4)
A	The stories are engaging to the child(ren) and adults in my household	☐	☐	☐	☐
B	My child(ren) learn a lot of good things from the stories	☐	☐	☐	☐
C	I like that the stories have morals and teach life lessons	☐	☐	☐	☐
D	The stories in the book remind me of ones my ancestors told	☐	☐	☐	☐
E	I have read the stories to my child(ren) multiple times	☐	☐	☐	☐
F	The instructions and questions at the back of the book are useful	☐	☐	☐	☐
G	I could easily understand the language used in the books	☐	☐	☐	☐
H	My child(ren) like the pictures in the book	☐	☐	☐	☐
I	My child(ren) have shown more interest in reading since the book arrived	☐	☐	☐	☐
J	My child(ren) have been read to more frequently since the book arrived	☐	☐	☐	☐
K	The exterior of the book is easily torn and worn out	☐	☐	☐	☐
L	My book is still in good condition even if we use it very often	☐	☐	☐	☐
M	I would like a more durable book cover	☐	☐	☐	☐
N	I find it difficult to find time to read to my child(ren)	☐	☐	☐	☐
O	Even if I had a busy schedule, I would create time to read the stories with my children	☐	☐	☐	☐
P	Those who are unable to read have difficulties using this book with their children	☐	☐	☐	☐
Q	I would buy a book like this if I saw it in a shop	☐	☐	☐	☐
R	I would recommend this book to another caregiver	☐	☐	☐	☐

NO.	QUESTION	POTENTIAL RESPONSES	SKIP
-----	----------	---------------------	------

E19	Do you have ideas for other folk tales or stories to include in the <i>Zambian Folk Tales Children's Book</i> ?	YES (1) NO (0)	IF (0) SKIP TO MODULE F
E20	Could you please provide the name of the folk tale(s) or story(ies) and/or a brief description?		

MODULE F. CAREGIVER PERSPECTIVES & WELLBEING

INTERVIEWER: *"This next section asks about your perspectives and opinions as a caregiver. I am going to ask you whether you agree or disagree with some statements about looking after young children. There are no right or wrong answers, we just want to know what you think or feel. You can also ask me to repeat the statements."*

INSTRUCTIONS: WHILE ALL OTHER SCALES IN THIS INSTRUMENT BEGIN WITH THE NEGATIVE (DISAGREE), BE AWARE THAT THIS SCALE BEGINS WITH THE POSITIVE (AGREE). PLEASE READ IT TO THE RESPONDENT THE WAY IT IS WRITTEN.

F1	To what degree do you agree or disagree with the following statements?	AGREE COMPLETELY (1)	AGREE A LITTLE BIT (2)	DISAGREE A LITTLE BIT (3)	DISAGREE COMPLETELY (4)
A	Too much love and attention will spoil a child.	☐	☐	☐	☐
B	A parent needs to spank or beat young children when they are rude or they will grow up to be bad.	☐	☐	☐	☐
C	It is important that a busy mother spend plenty time talking with her little baby.	☐	☐	☐	☐
D	It is not necessary / important for parents to look at picture books with children less than 2 years old.	☐	☐	☐	☐
E	The best way to get a child to behave is to praise him/her when s/he is good.	☐	☐	☐	☐
F	It is important that a busy mother should spend plenty time playing with her young child.	☐	☐	☐	☐
G	There is no need to give toys to children less than 1 year old.	☐	☐	☐	☐
H	A time for play is important for young children.	☐	☐	☐	☐
I	Singing and chatting with your baby will help him/her learn.	☐	☐	☐	☐
J	Children should not be given crayons until they are ready to learn to write.	☐	☐	☐	☐
K	Young children should not be held when they cry because this will make them want to be held all the time.	☐	☐	☐	☐

L	How a parent behaves with her child when s/he is young affects how well s/he will learn in school.	☐	☐	☐	☐
M	It is important that I do all of my chores and work before playing, singing or interaction with my children.	☐	☐	☐	☐
N	The way my child feels (sad, happy, withdrawn) should not matter to me as a parent if I am providing food for his physical growth	☐	☐	☐	☐
O	A parent can stimulate speech development in their children by talking and reading to/with them.	☐	☐	☐	☐
P	Hygiene is part of ensuring I have healthy children	☐	☐	☐	☐

INTERVIEWER: "Now I would like to ask a few questions about how you are feeling. The following questions are related to certain pains and problems that may have bothered you in the past 30 days. If you think this question applies to you and you had the described problem in the past 30 days, answer YES. If the question does not apply to you and you did not have the problem in the past 30 days, answer NO. Do not discuss these questions with me. If you are unsure about what to answer just give the best answer you can."

F2 In the past 30 days...		YES (1)	NO (0)	REFUSED TO ANSWER (98)
A	Have you had headaches often?	☐	☐	☐
B	Have you had a poor appetite?	☐	☐	☐
C	Have you slept badly?	☐	☐	☐
D	Have you been easily frightened?	☐	☐	☐
E	Have your hands shaken?	☐	☐	☐
F	Have you felt nervous, tense, or worried?	☐	☐	☐
G	Have you had poor digestion?	☐	☐	☐
H	Have you had trouble thinking clearly?	☐	☐	☐
I	Have you felt unhappy?	☐	☐	☐
J	Have you cried more than usual?	☐	☐	☐
K	Have you found it difficult to enjoy your daily activities?	☐	☐	☐
L	Have you found it difficult to make decisions?	☐	☐	☐
M	Has your daily work suffered?	☐	☐	☐
N	Have you felt unable to play a useful role?	☐	☐	☐
O	Have you lost interest in things?	☐	☐	☐
P	Have you felt that you are a worthless person?	☐	☐	☐
Q	Has the thought of ending your life been on your mind?	☐	☐	☐

R	Have you felt tired all the time?	☐	☐	☐
S	Have you had uncomfortable feelings in your stomach?	☐	☐	☐
T	Have you been easily tired?	☐	☐	☐

INTERVIEWER: *"We are interested in how you feel about the following statements."*

F3	How to you feel about the following statements?	VERY STRONGLY DISAGREE (1)	STRONGLY DISAGREE (2)	MIDLY DISAGREE (3)	NEUTRAL (4)	MIDLY AGREE (5)	STRONGLY AGREE (6)	VERY STRONGLY AGREE (7)
A	There is a special person who is around when I am in need	☐	☐	☐	☐	☐	☐	☐
B	There is a special person with whom I can share my joys and sorrows.	☐	☐	☐	☐	☐	☐	☐
C	My family really tries to help me.	☐	☐	☐	☐	☐	☐	☐
D	I get the emotional help and support I need from my family.	☐	☐	☐	☐	☐	☐	☐
E	I have a special person who is a real source of comfort to me.	☐	☐	☐	☐	☐	☐	☐
F	My friends really try to help me.	☐	☐	☐	☐	☐	☐	☐
G	I can count on my friends when things go wrong.	☐	☐	☐	☐	☐	☐	☐
H	I can talk about my problems with my family.	☐	☐	☐	☐	☐	☐	☐
I	I have friends with whom I can share my joys and sorrows.	☐	☐	☐	☐	☐	☐	☐
J	There is a special person in my life who cares about my feelings	☐	☐	☐	☐	☐	☐	☐
K	My family is willing to help me make decisions.	☐	☐	☐	☐	☐	☐	☐
L	I can talk about my problems with my friends.	☐	☐	☐	☐	☐	☐	☐

INTERVIEWER: “For the following questions, please respond only if you feel comfortable doing so. I will be asking about your HIV status, current use of antiretroviral therapies (ART), and disclosure of HIV status”

NO.	QUESTION	POTENTIAL RESPONSES	SKIP
F4	What is your current HIV status?	NEGATIVE (0) POSITIVE (1) DON'T KNOW (96) PREFER NOT TO ANSWER (98)	If (0), (96), or (98), skip to Module G
F5	Are you currently using ART?	YES (1) NO (0) DON'T KNOW (96) PREFER NOT TO ANSWER (98)	
F6	Have you disclosed your current status to any of the following? <i>Select all that apply</i>	HUSBAND/PARTNER (1) FAMILY MEMBER (2) RELIGIOUS LEADER (3) FRIEND (4) OTHER (SPECIFY) (5) _____	

Module G: Group Participation & Perspectives

INTERVIEWER: “This next section asks about your participation and perspectives on community groups. There are no right or wrong answers, we just want to know what you do and perceive.”

NO.	QUESTION	POTENTIAL RESPONSES	SKIP
G1	Have you ever attended a parenting group about child care? <i>Probe to ensure we do not miss caregivers who have attended the community-based parenting groups</i>	YES (1) NO (0) DON'T KNOW (96)	If (1), skip to G4
G2	Has [name] ever been brought to a parenting group about child care by another individual?	YES (1) NO (0) DON'T KNOW (96)	If (0) or (96) skip to Module H
G3	Who has brought [name] to a parenting group about child care? <i>Answer the question in relation to [name], meaning [name]'s _____.</i>	PARENT (1) GRANDPARENT (2) AUNTIE/UNCLE (3) OTHER RELATIVE/HOUSEHOLD MEMBER (4) OTHER (SPECIFY) (5) _____	Skip to Module H
G4	<i>If Yes to G1, what village does the parenting group usually meet in?</i>		
G5	<i>If Yes to G4, what is the name of the head mother who usually runs the parenting group?</i>		
G6	Are you currently attending this group (i.e. have attended within the last 2 months)?	YES (1) NO (0)	
G7	How often does the group meet per month?	< 1 TIME PER MONTH (1) 1 TIME PER MONTH (2) 2-3 TIMES PER MONTH (3) 4 TIMES PER MONTH (4) 5+ TIMES PER MONTH (5)	
G8	How often do you attend the group?	EVERY TIME IT MEETS (1) MOST TIMES IT MEETS (2) ABOUT HALF THE TIME (3) ONLY RARELY (4)	

G9	What is your main challenge in attending the group? Select only one	DISTANCE OR TRANSPORT (1) BUSY WITH CHILDREN (2) BUSY WITH WORK/CHORES (3) HUSBAND/OTHERS DO NOT ALLOW (4) OTHER [SPECIFY] (5) _____ NONE (6)	
----	--	--	--

INTERVIEWER: “We are interested in how you feel about the following statements.”						
G10	How to you feel about the following statements?	STRONGLY DISAGREE (1)	DISAGREE (2)	NEUTRAL (3)	AGREE (4)	STRONGLY AGREE (5)
A	The activities in each parenting group lesson were relevant to the subject of the day	☐	☐	☐	☐	☐
B	The information in the parenting group lessons was relevant to my family and me	☐	☐	☐	☐	☐
C	The games, activities, and short plays in the lessons helped me to understand the material	☐	☐	☐	☐	☐
D	It is okay to have a male lead the parenting groups	☐	☐	☐	☐	☐
E	It is okay to have men learn together with women in parenting groups	☐	☐	☐	☐	☐
F	The information in the lessons was culturally appropriate.	☐	☐	☐	☐	☐
G	I could easily understand the language the head mother used during the parenting group lessons	☐	☐	☐	☐	☐
H	I would prefer if the lessons were also conducted in another language	☐	☐	☐	☐	☐
I	The information provided during the lessons was too difficult/complicated	☐	☐	☐	☐	☐
J	The meeting time for the parenting group lessons was convenient for me	☐	☐	☐	☐	☐
K	The location for our parenting group meetings was convenient for me	☐	☐	☐	☐	☐
L	I would like to continue attending parenting group meetings	☐	☐	☐	☐	☐
M	I would encourage other people to join parenting group meetings	☐	☐	☐	☐	☐
N	I missed parenting group meetings because they did not seem as valuable as other things	☐	☐	☐	☐	☐
O	I helped select the head mother who taught us during the parenting group meetings	☐	☐	☐	☐	☐
P	The head mother(s) who taught our parenting group meetings was knowledgeable	☐	☐	☐	☐	☐
Q	The head mother(s) encouraged us to participate during parenting group meetings	☐	☐	☐	☐	☐

R	The head mother(s) asked us questions during parenting group meetings	☐	☐	☐	☐	☐
S	The head mother seemed to enjoy teaching the parenting groups	☐	☐	☐	☐	☐
T	I feel prepared to provide my child with highly nutritious meals from none to low cost	☐	☐	☐	☐	☐
U	I feel prepared to make toys for my child using readily available materials	☐	☐	☐	☐	☐
V	I feel prepared to make simple clothes for my child	☐	☐	☐	☐	☐
W	I regularly completed the tasks I was given at parenting group meetings such as the village of dreams homework	☐	☐	☐	☐	☐
X	I have learned new ways of raising my child from the parenting group meetings	☐	☐	☐	☐	☐
Y	The parenting group lessons reminded me of the knowledge I already knew	☐	☐	☐	☐	☐
Z	I have become more attentive to my child's well-being because of attending the parenting groups	☐	☐	☐	☐	☐
AA	I have learned new ways of cooking from parenting groups	☐	☐	☐	☐	☐
AB	I enjoyed the songs and games played during the parenting group lessons	☐	☐	☐	☐	☐
AC	My husband/partner has attended one or more parenting group meetings	☐	☐	☐	☐	☐
AD	I have made new friends through this group	☐	☐	☐	☐	☐
AE	I enjoy spending the group time with other women who also have young children	☐	☐	☐	☐	☐
AF	I felt supported by the other caregivers in the parenting group	☐	☐	☐	☐	☐
AG	I spend time with other caregivers from the parenting group outside of the parenting group meeting times	☐	☐	☐	☐	☐
AH	In general I am satisfied with the parenting groups	☐	☐	☐	☐	☐
AI	If given the opportunity, I would continue attending the parenting groups	☐	☐	☐	☐	☐

NO.	QUESTION	POTENTIAL RESPONSES	SKIP
G11	I found the length of each parenting group meeting to be:	TOO SHORT (1) IDEAL (2) TOO LONG (3)	
G12	I found the number of times a month the parenting groups met to be:	TOO FEW (1) IDEAL (2) TOO MANY (3)	

G13	The three most useful skills I developed during the parenting group meetings include: <i>Read the options to the respondent and have then select their top three choices.</i>	SING TO MY CHILD (1) PLAY GAMES WITH MY CHILD (2) READ TO MY CHILD (3) COOK NUTRITIOUS FOOD FOR MY CHILD (4) MAKES CLOTHES FROM AVAILABLE MATERIALS (5) MAKE TOYS FROM AVAILABLE MATERIALS (6) IDENTIFY SIGNS OF ILLNESS IN MY CHILD (7) OTHER (SPECIFY) (8) _____	
-----	---	--	--

Module H: COVID-19-related Behaviors

INTERVIEWER: “This next section asks about your perspectives and behaviors related to COVID-19. There are no right or wrong answers, we just want to know what you do and perceive.”

NO.	QUESTION	POTENTIAL RESPONSES	SKIP			
H1	In your opinion, what is your risk of catching COVID-19 disease? Select one	VERY LOW (1) LOW (2) MODERATE (3) HIGH (4) VERY HIGH (5)				
H2	From where do you primarily receive information about COVID-19 and prevention methods? Select top 3	HEALTH CENTER STAFF (1) COMMUNITY-BASED VOLUNTEERS (2) TRADITIONAL LEADERS (3) OTHER COMMUNITY LEADERS (4) OTHER FAMILY MEMBERS (5) FRIENDS/NEIGHBORS (6) SOCIAL MEDIA (7) RADIO (8) TV (9) OTHER (96), SPECIFY: _____				
INSTRUCTIONS: Ask questions H3-H13 only at households attending community-based parenting groups (G1=1). If G1=0 or 96, skip to H14.						
H3	Where was your last parenting group meeting located? Select all that apply	INDOORS IN A BUILDING (1) IN A TENT (2) OUTDOORS (3)				
H4	Approximately how many other people were at the parenting group while you were there?	<table border="1" style="display: inline-table;"> <tr> <td style="width: 30px; height: 30px;"></td> <td style="width: 30px; height: 30px;"></td> <td style="width: 30px; height: 30px;"></td> </tr> </table>				
H5	Did you wear a mask when you went to the parenting group?	YES, THE WHOLE TIME (1) YES, MOST OF THE TIME (2) YES, SOME OF THE TIME (3) YES, BUT RARELY (4) NO (5) DON'T KNOW (96)	If (0) or (96), skip to H8			
H6	While at the parenting group, did you wear the mask over your mouth?	YES, THE WHOLE TIME (1) YES, MOST OF THE TIME (2) YES, SOME OF THE TIME (3) YES, BUT RARELY (4) NO (5) DON'T KNOW (96)	If (5) or (96), skip to H8			
H7	While at the parenting group, did you wear the mask over both your mouth and nose?	YES, THE WHOLE TIME (1) YES, MOST OF THE TIME (2) YES, SOME OF THE TIME (3) YES, BUT RARELY (4) NO (5) DON'T KNOW (96)				

H8	Were other people at the parenting group wearing masks most or all time? Select one	YES, EVERYONE (1) YES, MOST PEOPLE (2) YES, ABOUT HALF (3) YES, BUT VERY FEW (4) NO, NONE (5) DON'T KNOW (96)	If (5) or (96), skip to H10
H9	Were other people at the parenting wearing the mask over both their mouth and nose most or all of the time? Select one	YES, EVERYONE (1) YES, MOST PEOPLE (2) YES, ABOUT HALF (3) YES, BUT VERY FEW (4) NO, NONE (5) DON'T KNOW (96)	
H10	While at the parenting group, did you sit or stand one meter apart from other people? Select one	YES, THE WHOLE TIME (1) YES, MOST OF THE TIME (2) YES, SOME OF THE TIME (3) YES, BUT RARELY (4) NO (5) DON'T KNOW (96)	
H11	Were other people at the parenting group sitting or standing one meter apart from each other most or all of the time? Select one	YES, EVERYONE (1) YES, MOST PEOPLE (2) YES, ABOUT HALF (3) YES, BUT VERY FEW (4) NO, NONE (5) DON'T KNOW (96)	
H12	What handwashing facilities were available for participants at the parenting group? Select all that apply	NOTHING WAS AVAILABLE (0) WATER (1) SOAP (2) ASH (3) HAND SANITIZER (4) OTHER (5) SPECIFY: _____	If (0), skip to H14
H13	Approximately how many times did you use one of those handwashing options while at the parenting group?	DID NOT USE THEM (0) USED ONCE (1) USED TWICE (2) USED THREE OR MORE TIMES (3) DON'T KNOW (96)	

H14	HEALTH FACILITY (ANY SERVICES)	CHURCH/ RELIGIOUS SERVICE	FUNERAL	OTHER SPECIFY: _____												
A In the last two weeks, did you attend [gathering]?	NO (0) YES (1) DON'T KNOW (96) <i>If (0) or (96), skip to next type of gathering</i>	NO (0) YES (1) DON'T KNOW (96) <i>If (0) or (96), skip to next type of gathering</i>	NO (0) YES (1) DON'T KNOW (96) <i>If (0) or (96), skip to next type of gathering</i>	NO (0) YES (1) DON'T KNOW (96)												
B Where was the [gathering] located?	INDOORS IN A BUILDING (1) IN A TENT (2) OUTDOORS (3)	INDOORS IN A BUILDING (1) IN A TENT (2) OUTDOORS (3)	INDOORS IN A BUILDING (1) IN A TENT (2) OUTDOORS (3)	INDOORS IN A BUILDING (1) IN A TENT (2) OUTDOORS (3)												
C Approximately how many other people were at the [gathering] while you were there?	<table border="1"><tr><td></td><td></td><td></td></tr></table>				<table border="1"><tr><td></td><td></td><td></td></tr></table>				<table border="1"><tr><td></td><td></td><td></td></tr></table>				<table border="1"><tr><td></td><td></td><td></td></tr></table>			
D While at the [gathering], did you wear a mask?	NO (0) YES (1) DON'T KNOW (96)	NO (0) YES (1) DON'T KNOW (96)	NO (0) YES (1) DON'T KNOW (96)	NO (0) YES (1) DON'T KNOW (96)												
E While at the [gathering], did you wear the mask over your mouth?	YES, THE WHOLE TIME (1) YES, MOST OF THE TIME (2) YES, SOME OF THE TIME (3) YES, BUT RARELY (4) NO (5) DON'T KNOW (96)	YES, THE WHOLE TIME (1) YES, MOST OF THE TIME (2) YES, SOME OF THE TIME (3) YES, BUT RARELY (4) NO (5) DON'T KNOW (96)	YES, THE WHOLE TIME (1) YES, MOST OF THE TIME (2) YES, SOME OF THE TIME (3) YES, BUT RARELY (4) NO (5) DON'T KNOW (96)	YES, THE WHOLE TIME (1) YES, MOST OF THE TIME (2) YES, SOME OF THE TIME (3) YES, BUT RARELY (4) NO (5) DON'T KNOW (96)												
F While at the [gathering], did you wear the mask over both your mouth and nose?	YES, THE WHOLE TIME (1) YES, MOST OF THE TIME (2) YES, SOME OF THE TIME (3) YES, BUT RARELY (4) NO (5) DON'T KNOW (96)	YES, THE WHOLE TIME (1) YES, MOST OF THE TIME (2) YES, SOME OF THE TIME (3) YES, BUT RARELY (4) NO (5) DON'T KNOW (96)	YES, THE WHOLE TIME (1) YES, MOST OF THE TIME (2) YES, SOME OF THE TIME (3) YES, BUT RARELY (4) NO (5) DON'T KNOW (96)	YES, THE WHOLE TIME (1) YES, MOST OF THE TIME (2) YES, SOME OF THE TIME (3) YES, BUT RARELY (4) NO (5) DON'T KNOW (96)												
G At the [gathering], were other people wearing masks?	YES, EVERYONE (1) YES, MOST PEOPLE (2) YES, ABOUT HALF (3) YES, BUT VERY FEW (4) NO, NONE (5) DON'T KNOW (96)	YES, EVERYONE (1) YES, MOST PEOPLE (2) YES, ABOUT HALF (3) YES, BUT VERY FEW (4) NO, NONE (5) DON'T KNOW (96)	YES, EVERYONE (1) YES, MOST PEOPLE (2) YES, ABOUT HALF (3) YES, BUT VERY FEW (4) NO, NONE (5) DON'T KNOW (96)	YES, EVERYONE (1) YES, MOST PEOPLE (2) YES, ABOUT HALF (3) YES, BUT VERY FEW (4) NO, NONE (5) DON'T KNOW (96)												
H At the [gathering], were other people wearing masks over both their mouth and nose?	YES, EVERYONE (1) YES, MOST PEOPLE (2) YES, ABOUT HALF (3) YES, BUT VERY FEW (4) NO, NONE (5) DON'T KNOW (96)	YES, EVERYONE (1) YES, MOST PEOPLE (2) YES, ABOUT HALF (3) YES, BUT VERY FEW (4) NO, NONE (5) DON'T KNOW (96)	YES, EVERYONE (1) YES, MOST PEOPLE (2) YES, ABOUT HALF (3) YES, BUT VERY FEW (4) NO, NONE (5) DON'T KNOW (96)	YES, EVERYONE (1) YES, MOST PEOPLE (2) YES, ABOUT HALF (3) YES, BUT VERY FEW (4) NO, NONE (5) DON'T KNOW (96)												
I While at the [gathering], did you sit or stand one meter apart from other people?	YES, THE WHOLE TIME (1) YES, MOST OF THE TIME (2) YES, SOME OF THE TIME (3) YES, BUT RARELY (4) NO (5) DON'T KNOW (96)	YES, THE WHOLE TIME (1) YES, MOST OF THE TIME (2) YES, SOME OF THE TIME (3) YES, BUT RARELY (4) NO (5) DON'T KNOW (96)	YES, THE WHOLE TIME (1) YES, MOST OF THE TIME (2) YES, SOME OF THE TIME (3) YES, BUT RARELY (4) NO (5) DON'T KNOW (96)	YES, THE WHOLE TIME (1) YES, MOST OF THE TIME (2) YES, SOME OF THE TIME (3) YES, BUT RARELY (4) NO (5) DON'T KNOW (96)												
J At the [gathering], were other people sitting or standing one meter apart from each other most or all of time?	YES, EVERYONE (1) YES, MOST PEOPLE (2) YES, ABOUT HALF (3) YES, BUT VERY FEW (4) NO, NONE (5) DON'T KNOW (96)	YES, EVERYONE (1) YES, MOST PEOPLE (2) YES, ABOUT HALF (3) YES, BUT VERY FEW (4) NO, NONE (5) DON'T KNOW (96)	YES, EVERYONE (1) YES, MOST PEOPLE (2) YES, ABOUT HALF (3) YES, BUT VERY FEW (4) NO, NONE (5) DON'T KNOW (96)	YES, EVERYONE (1) YES, MOST PEOPLE (2) YES, ABOUT HALF (3) YES, BUT VERY FEW (4) NO, NONE (5) DON'T KNOW (96)												
K What handwashing facilities were available at the [gathering]? Select all apply	WATER (1) SOAP (2) ASH (3) HAND SANITIZER (4) OTHER (5) SPECIFY: _____ NOTHING WAS AVAILABLE (6)	WATER (1) SOAP (2) ASH (3) HAND SANITIZER (4) OTHER (5) SPECIFY: _____ NOTHING WAS AVAILABLE (6)	WATER (1) SOAP (2) ASH (3) HAND SANITIZER (4) OTHER (5) SPECIFY: _____ NOTHING WAS AVAILABLE (6)	WATER (1) SOAP (2) ASH (3) HAND SANITIZER (4) OTHER (5) SPECIFY: _____ NOTHING WAS AVAILABLE (6)												
L Approximately how many times did you use one of those handwashing options while at the [gathering]?	DID NOT USE THEM (0) USED ONCE (1) USED TWICE (2) USED THREE OR MORE TIMES (3) DON'T KNOW (96)	DID NOT USE THEM (0) USED ONCE (1) USED TWICE (2) USED THREE OR MORE TIMES (3) DON'T KNOW (96)	DID NOT USE THEM (0) USED ONCE (1) USED TWICE (2) USED THREE OR MORE TIMES (3) DON'T KNOW (96)	DID NOT USE THEM (0) USED ONCE (1) USED TWICE (2) USED THREE OR MORE TIMES (3) DON'T KNOW (96)												

--	--	--	--	--	--	--	--	--	--

MODULE I. INTIMATE PARTNER VIOLENCE

INTERVIEWER: "This is our last series of questions. I would like to ask you questions about some other important aspects of a woman's life. You may find some of these questions very personal. However, your answers are crucial for helping to understand the condition of women in Zambia. We will make sure again that no one nearby can overhear these questions or your responses to these questions. If I ask you any question you don't want to answer, just let me know and I will go on to the next question. Please respond only if you feel comfortable doing so. If you need a break during these questions or would like to stop, please let me know. As a reminder, I will refer you to resources if you need them."

11	First, I am going to ask you about some situations which happen to some women. Please tell me if these apply to your relationship with your (last) husband/partner?	YES (1)	NO (0)	REFUSED TO ANSWER (98)
A	He (is/was) jealous or angry if you (talk/talked) to other men?	☐	☐	☐
B	He frequently (accuses/accused) you of being unfaithful?	☐	☐	☐
C	He (does/did) not permit you to meet your female friends?	☐	☐	☐
D	He (tries/tried) to limit your contact with your family?	☐	☐	☐
E	He (insists/insisted) on knowing where you (are/were) at all times?	☐	☐	☐

12	INTERVIEWER: "Now I need to ask some more questions about your relationship with your (last) husband/partner." Did your (last) (husband/partner) ever do any of the following things to you?		IF YES... How often did this happen during the last 12 months: often, only sometimes, or not at all?		
		YES (1) NO (0)	OFTEN (1)	SOMETIMES (2)	NOT IN LAST 12 MONTHS (3)
A	Say or do something to humiliate you in front of others?	☐ ☐	☐	☐	☐
B	Threaten to hurt or harm you or someone you care about?	☐ ☐	☐	☐	☐
C	Insult you or make you feel bad about yourself?	☐ ☐	☐	☐	☐
D	Push you, shake you, or throw something at you?	☐ ☐	☐	☐	☐
E	Slap you?	☐ ☐	☐	☐	☐
F	Twist your arm or pull your hair?	☐ ☐	☐	☐	☐
G	Punch you with his fist or with something that could hurt you?	☐ ☐	☐	☐	☐
H	Kick you, drag you, or beat you up?	☐ ☐	☐	☐	☐
I	Try to choke you or burn you on purpose?	☐ ☐	☐	☐	☐

SURVEY ID

--	--	--	--	--	--	--	--	--	--

J	Threaten or attack you with a knife, gun, or other weapon?	☐	☐	☐	☐	☐
K	Physically force you to have sexual intercourse with him when you did not want to?	☐	☐	☐	☐	☐
L	Physically force you to perform any other sexual acts you did not want to?	☐	☐	☐	☐	☐
M	Force you with threats or in any other way to perform sexual acts you did not want to?	☐	☐	☐	☐	☐

INSTRUCTIONS: If (0) to I1 A-E AND (0) to I2 A-M, skip to Module J.

NO.	QUESTION	POTENTIAL RESPONSES
I3	How long after you first (got married/started living together) with your (last) (husband/partner) did (this/any of these things) first happen? <i>If less than one year, record '00'. For single women who have a partner but have never been married and have not lived with their partner, ask 'how long after the relationship started did any of these things first happen?'</i>	YEARS BEFORE MARRIAGE/BEFORE LIVING TOGETHER (95)
I4	Did the following ever happen as a result of what your (last) (husband/partner) did to you?	YES (1) NO (0)
	A You had cuts, bruises, or aches?	☐ ☐
	B You had eye injuries, sprains, dislocations, or burns?	☐ ☐
	C You had deep wounds, broken bones, broken teeth, or any other serious injury?	☐ ☐

--	--	--	--	--	--	--	--	--	--

MODULE J. SURVEY COMPLETION

INTERVIEWER: “Thank you for taking the time to take our survey. We have now reached the end of the survey.”

J1	Would you be willing to have someone come back and follow up on a few questions from the survey in the next couple of days to check my work?	YES (1) NO (0)
J2	Do you have any additional comments you might like to add?	

INSTRUCTIONS: Below questions are for the interviewer only. Do not read to participant.

NO.	QUESTION	POTENTIAL RESPONSES	SKIP
J3	Is this person participating in an IDI?	YES, ASSIGNED AND AGREED AND AGREE TO PARTICIPATE IN IDI (1) NO, NOT ASSIGNED (2) NOT, ASSIGNED BY REFUSED (3) DON'T KNOW (96)	
J4	Did any of the following adverse events occur during the interactions with this household? Select all that apply <i>Please be honest and record all adverse events so they can be reported to the ethics committees. Adverse events do not reflect on you as an enumerator, so report everything that has occurred.</i>	HOUSEHOLD WITHDREW AFTER CONSENTING (1) PARTICIPANT PHYSICALLY INJURED DURING INTERVIEW (2) PARTICIPANT VISIBLY UPSET/DISTRESSED DURING INTERVIEW (3) HOUSEHOLD OR COMMUNITY MEMBER UPSET BY YOUR PRESENCE (4) LOSS OF CONFIDENTIALITY (TABLET OR PAPER FORM LOST) (5) LOSS OF PRIVACY (SOMEONE UNAUTHORIZED BY PARTICIPANT OVERHEARS INTERVIEW) (6) CURRENT SERIOUS CHILD ILLNESS, SUSPECTED MALNUTRITION, OR SUSPECTED DEVELOPMENTAL DELAY (7) SUSPECTED CHILD ABUSE OR NEGLECT (ESPECIALLY ANY HARM TO A CHILD) (8) MISSING/TAKEN CHILD (9) LIKELY PHYSICAL OR PSYCHOLOGICAL ABUSE OF CAREGIVER (10) HHS TOOK LONGER THAN 1.5 HOURS TO COMPLETE (NOT INCLUDING CONSENTING OR IDI) (11) OTHER UNDUE HARM CAUSED BY INTERVIEW OR YOUR PRESENCE (12) NO ADVERSE EVENTS TO REPORT (13)	If (13), skip to end
INSTRUCTIONS: If (7) refer SMAG to household for follow-up. If (7), (8), (9), or (10) discuss with Field Coordinator – referral to appropriate authorities may be required.			
J5	Please elaborate on the adverse events selected in J4.		

SURVEY ID

--	--	--	--	--	--	--	--	--	--

END OF SURVEY

INSTRUMENT REVIEW

Enumerator Initials:	
Date (DD/MM/YYYY)	
Supervisor Initials:	
Date (DD/MM/YYYY)	

Data Entry Initials:	
Date (DD/MM/YYYY)	
Supervisor Initials:	
Date (DD/MM/YYYY)	

Instrument ID:

SURVEY ID

--

The SUPERCDS Project

Baseline Impact Evaluation – In-Depth Interview **ENGLISH**

Target Audience:

Caregiver or guardian of child 24 to approximately 29 months old, who are ≥ 15 years of age, and who live within the study catchment areas.

Was verbal informed consent (or assent/consent if age 15-17) obtained for this interview during the process of informed consent for the household survey?

☐ **YES**

☐ **NO – STOP!** Thank the participant for their time. Do NOT proceed with the interview.

Step 1: Read the following statement. Please repeat the statement translated into the local language based on primary languages.

“Thank you for agreeing to participate in this interview. My name is _____. I will be asking you questions during this interview and recording your responses on this machine.”

“We want to understand in greater detail your views on early childhood development. We would also like to understand your perspectives on and behaviors related to COVID-19. Please feel free to tell us only what you feel comfortable sharing. There are no right or wrong answers, so please be honest and help us to understand what is true for you. Are you ready to begin?”

Step 2: Ensure you and any adult participant are wearing a face mask, that it is worn correctly (covering both nose and mouth), and that you are practicing social distance (at least 1 meter apart from any other person).

Step 3: Proceed to the interview guide. Please probe to obtain as in-depth and specific information you can.

Interviewer Name: _____

1. Interview Date:

				2	0	2	1
MM		DD		YYYY			

2. Time Start:

		:		
H	H		M	M

3. Time Finish:

		:		
H	H		M	M

THIS FORM MUST BE TURNED IN TO YOUR FIELD COORDINATOR FOR EVERY IDI YOU CONDUCT!

INSTRUCTIONS: READ THE DATE, UNIQUE ID, AND INTERVIEWER NAME ON THE RECORDING BEFORE YOU BEGIN THE INTERVIEW!

Theme 1: Caregiver-Child Interactions

INTERVIEWER: *"Thank you for agreeing to speak with me today. I'm going to ask you some questions about your experiences as a caregiver."*

1a. On a normal day, who generally provides care to the children in your household?

1b. During the household survey, we were talking about *[name]*. As a caregiver, **what things do you do with *[name]*** on a typical day from the time he/she wakes up until he/she goes to bed?

o **After respondent answers, probe for:**

- o Waking up
- o Feeding/breastfeeding
- o Activities
- o Playing
- o Singing songs
- o Reading books/telling stories
- o Caregiver's work
- o Caregiver's other responsibilities

1c. What do you do with *[name]* when you need to do tasks such as **housework**?

Follow-up question:

- i. What about when you need to leave the house to fetch water, go to the market, etc.?

1d. How does **caregiving for the other children in the household** differ from how you care for *[name]*?

- o Why does it differ?
 - o Prompt if needed: age, sex of child, relationship to child

1e. What types of **things do other caregivers in your community do** with children the same age as *[name]* that you think are **good**?

- o Prompt if needed:
 - o For example, what are some good nutrition practices?
 - o For example, what are some good play practices?
 - o For example, what are some good practices to prepare children for school?
- o For the above, ask: Why they think these things are good?

1f. What types of **things do other caregivers in your community do** with children the same age as *[name]* that you think are **bad**?

- o **Prompt if needed:**
 - o For example, what are some bad practices regarding nutrition
 - o For example, what are some bad practices regarding punishments

1g. As a caregiver, do you feel **you know how** to make sure *[name]* grows healthy and strong? Why or why not?

- *If No*, what would you like to learn more about?

1h. As a caregiver, do you feel you have the **resources** to make sure *[name]* grows healthy and strong? Why or why not?

- **After respondent answers, probe for:**

- o Money
- o Food
- o Time
- o Energy

1i. How do you make decisions on what *[name]* eats?

Follow-up:

- **What is good nutrition in children *[name's]* age? ***Please be specific*****
- How do your choices on what *[name]* eats **differ from what other caregivers in your community do** for their children of the same age as *[name]*?

1j. How do you make decisions on when to **seek health care** for *[name]*?

Follow-up:

- **When is it important to seek health care for children *[name's]* age? ***Please be specific*****
- How do your choices on when to seek care for *[name]* **differ from what other caregivers in your community do** for their children of the same age as *[name]*?

Theme 2: Male Involvement

2a. What do **you believe** is the **role of male caregivers** in caring for young children?

2b. In general, **what are the roles of male caregivers** in caring for young children **in this community**?

2c. In the last 12 months, has the **perception of male involvement with caring for young children changed** in your community? If yes, how has it changed?

2d. What do you **suggest should be done to increase male involvement** in caring for young children within your communities?

Theme 3: Barriers & Facilitators

INTERVIEWER: "We know critical milestone happen in child development in the first 5 years. Your child is approximately 2 years old right now, so the next 3 years are very important. Please answer the next few questions by thinking about the next 3 years, assuming the household remains similar to how it is today."

In the next 3 years, **what will be easy to do to ensure that your child grows** healthy and strong? Why? Please give me specific examples.

Follow-up questions:

- i. What will make providing **nutritious food** to *[name]* easy to do?
- ii. What will make **accessing health care** for *[name]* easy to do?

- iii. What will make **playing** with [name] easy to do?
- iv. What will make **reading books** to [name] easy to do?
- v. What will make **singing songs** to [name] easy to do?
- vi. What will make **giving toys** to [name] easy to do?
- vii. What will make having [name] **interact with other children** easy to do?

In the next 3 years, **what will be hard to do to ensure that your child grows** healthy and strong? Why? Please give me specific examples.

Follow-up questions:

- i. What will make providing **nutritious food** to [name] hard to do?
- ii. What will make **accessing health care** for [name] hard to do?
- iii. What will make **playing** with [name] hard to do?
- iv. What will make **reading books** to [name] hard to do?
- v. What will make **singing songs** to [name] hard to do?
- vi. What will make **giving toys** to [name] hard to do?
- vii. What will make having [name] **interact with other children** hard to do?

3i. As a caregiver, **what else would you need** to make [name] grow healthy and strong?

3j. As a caregiver, what do you **wish you could do more of** for/with [name]?

Theme 4: Perception of Parenting Groups

INTERVIEWER: "I am now going to ask you to describe the parenting groups in your zone and answer general questions about them."

4a. Tell me about the parenting groups for women in your zone (If applicable)

4b. Have you attended the parenting groups for women? Why or why not? (**INTERVIEWER: If no, make sure to get explanation of why not then skip to next section**)

4c. What were the **top three things you liked**? Why? *****PLEASE BE SPECIFIC*****

Prompts if needed: content, frequency, social aspects

4d. What were **three things you didn't like**? Why? *****PLEASE BE SPECIFIC*****

4e. Tell me a **story about a memorable experience** during the parenting group.

4f. Tell me a story about how **meeting with other women raising children the same age** has affected you?

Prompt if needed: Has meeting with other women raising children the same age been helpful or not helpful for your own experience? How?

4g. Think back to the **toy making skills sessions**, please tell us a story about something you found interesting or useful.

4h. Think back to the **cooking skills sessions**, please tell us a story about something you found interesting or useful.

4i. Do you think the parenting groups are **useful for the mothers**? Why/why not?

Follow-up questions

- i. Give specific examples of **what might be useful** for the mothers
- ii. Give specific examples of **what might not be useful** for the mothers.

4j. Do you think the parenting groups are **useful for male caregivers**? Why/why not?

Follow-up questions

- i. Give specific examples of what might be useful for the **male caregivers**
- ii. Give specific examples of what might not be useful for the **male caregivers**.

4k. What would you **suggest to improve** the parenting groups for women?

Follow-up questions

- i. Give an example of one thing you **would change**
- ii. Give an example of one thing you **would not change**

4l. Tell us about how your group selected the head mother(s).

Prompts if needed: What was the process? Did you participate?

4m. What types of things do you think makes a **good head mother**?

Theme 5: Zambian Folktales Children's Book

INTERVIEWER: "I am going to ask you about stories told to children in this community and the Zambian Folktales Children's Book."

5a. In general, what **types of stories** do people in this community tell their children, if any? Please give me an example.

5b. Can you tell me **what you know about the Zambian Folktales Children's Book**, if anything?

Follow-up questions

i. Have you received a book? (if no, skip to next theme)

5c. Tell us about a **memorable experience** you had with the book?

5d. How, if at all, have you **incorporated reading into your home life**?

5e. Can you give me examples of how **households without a literate caregiver** use the book?

5f. What are your **three favorite things** about having the book?

5g. What do you think is **easy about using the book**? Please give examples.

**** (Facilitator: MAKE SURE TO PROBE!) ****

5h. What do you think is **challenging about using the book**? Please give examples.

**** (Facilitator: MAKE SURE TO PROBE!) ****

5i. Are you finding time to read or **competing priorities** a challenge? How do you handle this? **Please provide specific examples.**

Follow-up question: What could be done to address those challenges?

5j. How if at all does this book help **prepare children for school**?

Theme 6: COVID-19

INTERVIEWER: "I am going to ask my last few questions about the COVID-19 pandemic in Zambia."

6a. Tell me, how concerned are you about getting COVID-19?

Follow-up questions:

- i) Why do you feel that way?
- ii) How likely do you think it is?
- iii) How severe do you think it would be?

6b. What do you hear about COVID-19 from people in your community that you **don't believe or that you think is wrong**?

6c. How do you **protect yourself** from catching COVID-19?

6d. Did you, someone in your family, or someone close to **you ever had or were exposed to COVID-19**? If so, please tell me the story about what happened and what the outcome was.

6e. How, if at all, has COVID-19 **impacted your daily life**? For example, think about school, health visits, stress, attendance at social gatherings/church/parenting groups, etc.

Follow-up questions (Ask for things they don't address initially):

- i. How it affected your **children going to school**? Please give an example.
- ii. How has it affected your **attendance to groups/meetings**? Please give an example.
- iii. How has it affected your **likelihood of visiting the health center**? Please give an example.
- iv. How has it affected your **well-child visits** to the clinic? Please give an example.
- v. How has it affected your **social support**? Please give an example.
- vi. How has it affected your **stress**? Please give an example.

6g. What have you **heard about the COVID-19 vaccine(s)**?

Follow-up questions:

- i. Have you heard anything that worries you?
- ii. Who did you hear this from?
- iii. Do you think it's true? Why?

6h. Have **you thought about getting a COVID-19 vaccine**? What did you decide? Please explain why you made that decision.

Follow-up Questions:

- i. Who influenced your decision about whether or not to get the COVID-19 vaccine? (Family and friends, religious and community leaders, HF staff)
- ii. What did they say that influenced you?
- iii. What other factors influenced your decision about whether or not to get the COVID-19 vaccine? (Availability of vaccine, distance, perception of risk, close experience)

6i. Would most **people in your community want to get the vaccine** if it were easily available? Why or why not?

6j. What **would make it easier** for you or people in your community **to get a COVID-19 vaccine**?

6k. What **would make it harder** for you or people in your community **to get a COVID-19 vaccine**?

INTERVIEWER: *"I have finished with this in-depth interview. Is there anything you would like to add before we end?"*

Thank you for your time.