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**An evaluation of the effectiveness of a
community-based parenting empowerment
program to improve nurturing care of young
children in Kenya and Zambia**

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EXECUTIVE SUMMARY

Purpose of Research: Investing in parents and children during the critical period between birth and five years can have long-lasting benefits in the child's life (1). Currently in five African countries, the *Moments That Matter*® (MTM) Program is an early childhood development (ECD) program partnership of Episcopal Relief & Development aimed at empowering Primary Caregivers through a rural, community-led, integrated nurturing care approach engaging the most vulnerable families with children 0-3 years old. The African Population and Health Research Center (APHRC) conducted implementation research during a 30-month program period on MTM in Kenya and Zambia – where it is implemented by Episcopal Relief & Development with its long-term partners, the Zambia Anglican Council Outreach Programs (ZACOP) and the Anglican Church of Kenya Development Services – Nyanza (ADS-Nyanza) (2).

Methods: The study employed a cluster quasi-experimental design with a mixed-methods approach. In Kenya the clusters were purposively selected; in Zambia the clusters were randomly selected with partial randomization. Primary Caregivers were recruited into the study when they were pregnant or had children aged between zero and 18 months at baseline, and were followed up through midline and endline evaluations after 12 and 24 months of program participation (2).

Impact Evaluation Findings

Responsive Care and Early Learning: The endline findings showed that from baseline, MTM Primary Caregivers had improved parenting practices in responsive care and early learning compared with the control arm. The specific areas of impact were increased interaction time with their children, increased activities in all five development domains, provision of play materials and arranging for playtime with other children.

Child Safety & Security: There were mixed results in this outcome area. In both countries, the MTM Primary Caregivers' knowledge on child protection increased compared with the control. Notably, there was a significant increase in the proportion of caregivers in the intervention arms in both countries who mentioned that they used more than seven out of ten positive discipline strategies. However, there was no noticeable difference between the control and intervention arms in the reported decrease in use of physical punishment. The qualitative findings showed that caregivers had learnt positive discipline strategies through the MTM Program.

Primary Caregiver Well-Being and Family Economic Status: In both countries, there was an increase in the proportion of Primary Caregivers who reported saving a portion of their income. The endline findings for both countries also showed that the proportion of caregivers who reported improved parenting confidence increased in both the intervention and control arms. In Zambia, the proportion of caregivers who reported a reduction of parental stress from baseline to endline was much higher in the intervention arm than in the control arm, whereas in Kenya there were no differences across the two arms.

Fathers as Secondary Caregivers' Parenting Outcomes: Fathers¹ caregiving practices improved from baseline to endline, with the intervention group having a slightly higher proportion than the control arm. Most participants reported that fathers had become more involved in childcare and supported women in carrying out household chores. These changes were linked to the information they had received from their spouses or their direct participation in the MTM Program activities.

¹Those who are secondary caregivers

Child Developmental Outcomes: In Zambia, children's developmental outcome scores across the five domains (communication, personal-social, problem-solving, gross and fine motor) of the Ages & Stages Questionnaire-Third Edition (ASQ-3) were better in the intervention arm than in the control arm. However, in Kenya, children's development outcome scores were similar in both arms.

Process Evaluation Findings

Community Implementers: ECD Promoters were found to be well-trained and effectively carried out their roles in facilitating participatory and peer learning on nurturing care with Primary Caregivers, and some fathers/secondary caregivers who chose to join. MTM-trained faith leaders were involved in the MTM activities to promote positive parenting among caregivers. ECD Committee members in Zambia affirmed their support for the MTM Program implementation activities and were actively engaged. The Faith Leaders' Consortium in Kenya was able to coordinate the MTM Program activities and network with stakeholders in the MTM Program site.

Primary Caregiver Support & Learning Group meetings combined with ECD Home Visits (monthly for 24 months), and optional Savings & Loan Groups: The endline findings showed that Primary Caregivers' participation in Caregiver Support Group meetings, ECD home visits and optional member-run Savings & Loan Groups was quite high prior to their graduation out of the Program. Caregiver participation in the Savings & Loan groups led to improved saving culture and better utilization of loan facilities, which fits in well with the program's goal of strengthening livelihoods.

Implementation Variables: The endline findings confirmed that the MTM Program in both countries had demonstrated acceptability, coverage/reach, appropriateness, feasibility, fidelity, and sustainability. The Program also demonstrated partial achievement of adoption, with more work to be done in increasing use of positive discipline practices and decreasing use of physical punishment.

Findings on Cost-Effectiveness

In both countries, the main cost-driver was the program staff personnel; tied for second largest cost driver were the ECD Promoters' stipends (which defray the cost of their volunteering) and the monitoring travel/transportation costs; third was the training and equipping of ECD Promoters.

Due to mixed impact results in Primary Caregiver/ parenting improvement and in strengthening child development, the findings showed that the MTM Program was only cost-effective for a few of the Primary Caregiver outcome indicators and child development domains, varying somewhat by country.

Conclusions: Overall, the evaluation of the MTM Program model which is based on facilitation of participatory learning and social and behavior change to improve nurturing care has provided us with information about what works to improve caregiving practices, and how local volunteers, including faith leaders, can be leveraged to deliver messages to improve parenting and child outcomes.

Recommendations include: a) set and strive for a standard for Primary Caregiver responsive interactions of at least five days a week and more than one hour per day; b) increase caregiver use of positive discipline and reduce use of physical punishment; c) future studies evaluate a program duration of shorter than 24 months, given that no significant changes were found on some of the caregiver outcomes between midline and endline; and d) scale the MTM Program in similar rural sub-Saharan African settings, with standardized effective components, and local adaptations.

INTRODUCTION

This summary report documents the endline findings of an impact, process and cost-effectiveness evaluation that was based on the MTM Program's impact and process evaluation indicators.

1.1 Background

Investing in parents and children during the first three years of life can have long-lasting benefits for the child. The 2016 Lancet Series on Early Childhood Development (ECD) estimated that 250 million children aged less than five years in low- and middle-income countries (LMICs) are at risk of not reaching their developmental potential (3,4). For over 66% of these who live in sub-Saharan Africa (SSA), the risk is presented by several factors, including under-stimulation in the home environment. The Series recommended integrated interventions which combine nutrition, responsive child feeding, early learning, as well as the expansion of high quality and cost-effective ECD programs (5).

1.2 *Moments That Matter*® Program Model

The *Moments That Matter*® (MTM) Program aims to fill the identified gaps through a community-led, integrated approach that engages vulnerable families with children between zero and three years old. MTM is a program partnership of Episcopal Relief & Development with the Zambia Anglican Council Outreach Programs (ZACOP), the Anglican Church of Kenya Development Services – Nyanza (ADS-Nyanza), and five other partners in Ghana, Malawi, Mozambique, and Namibia. MTM promotes parental empowerment of Primary Caregivers and their children, focusing on responsive care, early learning, and security and safety so that children reach their full developmental potential. The Program seeks to improve caregivers' wellbeing and their livelihoods, so they are better able to enjoy their children and meet their needs. Trained ECD volunteers facilitate monthly Caregiver Support & Learning Groups combined with ECD home visits while other volunteers facilitate the formation of caregiver-run Savings & Loan Groups.

1.3 Study Goals and Components

The overall goal of the impact evaluation was to establish if the MTM Program increased the adoption of high-impact parenting behaviors to improve Primary Caregiver-child interactions, responsive care, early learning, and child safety and security so that young children achieve their full developmental potential. The overall goal of the process evaluation was to establish factors affecting the MTM implementation process, that is, what, why and how the intervention worked in "real world" settings in two different countries, and to test approaches for improvement. The impacts were measured after 12 (midterm) and 24 months (endline) of Primary Caregiver participation in program activities. The process evaluation was carried out after six and 12 months (midterm), and after 24 months of implementation. The aim of the cost-effectiveness evaluation was to measure how much it cost to produce the results, as well as to provide insights on the value for money in running the MTM Program in Kenya and Zambia. Costs were cumulated over a 30-month period, including the six-month start-up and 24-month implementation phases.

STUDY METHODS

2.1 Study Design

Overall, for both Kenya and Zambia, the study employed a cluster quasi-experimental design with a mixed-methods approach. For both countries, the team took into consideration factors such as poverty levels and the number of families required to make the sample populations as comparable to each other as possible. Primary Caregivers and their children were recruited into the study for baseline data collection when the children were aged between zero and 18 months or the mother was pregnant and were followed up at midline, after 12 months of program implementation, and at the endline study point, after 24 months.

The costing assessment measured the incremental costs associated with the implementation of the MTM program in Kenya and Zambia from the implementer's perspective.

2.2 Study Sites

In Kenya, the study was conducted in Kisumu County where ADS-Nyanza implemented the MTM Program in three sub-locations of Awasi-Onjiko Ward within Nyando sub-County. Ayucha and Boda 1 sub-locations served as the intervention site while Wang'ang'a served as the control site. In Zambia, the study was conducted in Mwantaya Ward (intervention) and Chamuka Ward (control) within the greater Chamuka area in Chisamba District of Central Province.

IMPACT EVALUATION FINDINGS

3.1 Primary Caregivers

a. Parenting: responsive care, early learning, and stimulation

The findings at the endline compared to the baseline showed that there were improved **parenting practices in responsive care and early learning** by Primary Caregivers in the intervention arm. Impact areas with improvements in the intervention arms (that were significantly different from the control sites) in both countries included time spent interacting with the child, and engagement in activities in the different child developmental domains:

- **Time spent interacting with the child** – Primary Caregivers reported scheduling more time to play with their children during the day (Figure 1). Such changes were attributed to the teachings/training they had received from the ECD Promoters



We were taught to create time and play with the child.... I make sure I have completed my duties before I begin playing with my children. This allows us more time to play.... When you finish your duties you tell the child to bring his/ her playing materials so that you can play

FGD with female Primary Caregivers, intervention, Kenya



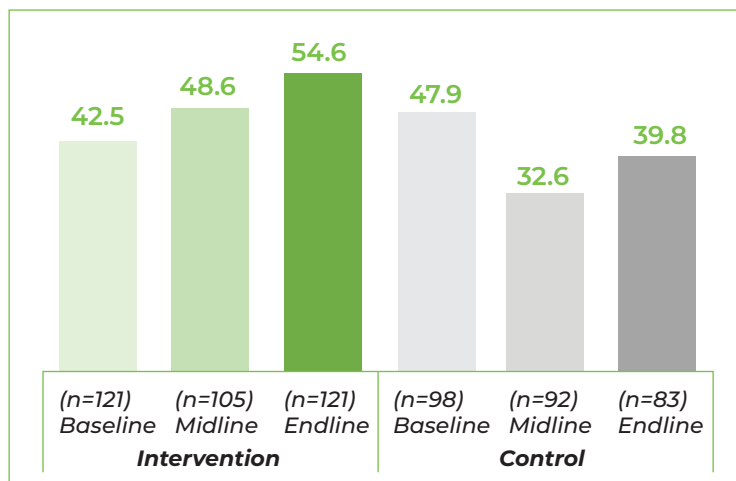


Figure 1: Proportion of Primary Caregivers who interacted with the child under 3 years **more than one hour for more than five days a week** – Kenya

- **Increased Primary Caregiver engagement in responsive care and early learning activities in each child development domain (cognitive, language, motor skills, social, and emotional development)** – In Zambia, there was a 33.3% increase in the proportion of Primary Caregivers in the intervention arm who reported participation in activities to stimulate development as compared to a 21.5% increase in the control arm across the different domains (Figure 2).

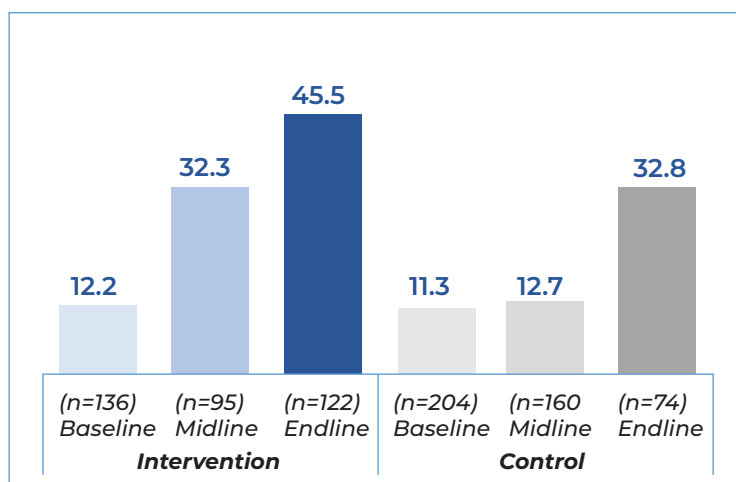


Figure 2. Proportion of Primary Caregivers who increased responsive care and stimulation activities in all domains – Zambia

In Kenya, there was a 24% increase in the intervention arm and only an 8% increase in the control arm. Information obtained from qualitative interviews with Primary Caregivers in Zambia reflected an improved understanding of age-relevant stimulation activities (and related outcomes) that those who participated in the MTM Program engaged in with their children.

“When they are still young, we sing for them and even make sounds for them using the mouth. Even clapping, you will see they will be repeating what you are doing and that will help them develop.”

FGD with Primary Caregivers, intervention, Zambia

“I will make a small ball then we will be playing together. Sometimes I tell them to throw the ball for me, and then I will also throw the back at them.”

FGD with Primary Caregivers, intervention, Zambia

- **Parenting knowledge gained.** 92% of all the Primary Caregivers in the intervention arm in both countries confirmed that they had gained knowledge about ECD and parenting through their two-year participation in the MTM Program. The most common source of information was the ECD Promoters (Kenya: 87.3%; Zambia: 86%), followed by MTM Program-based peer-learning activities (Caregiver Support & Learning Groups, Kenya: 13.5%; Zambia: 39.6%), faith leaders (Kenya: 8.7%; Zambia: 24.8%) and neighbors.

b. Child safety and security and discipline practices

To establish the change in the use of positive discipline practices and use of physical punishment, Primary Caregivers were asked about the discipline methods they had used in the previous week when correcting their children.

- **Increased use of positive discipline strategies** – There was a significant increase in the proportion of caregivers in the intervention arms in both countries who mentioned that they used more than seven out of the ten listed positive discipline strategies. This may be attributed to the program activities that emphasized positive discipline strategies. On the other hand, there were mixed findings on the use of physical punishment in both countries. At endline, the results among caregivers in Kenya were surprising – whereas in both arms there was a decrease in the proportion of those who mentioned that they had spanked their children in the week prior to the interview, the change in the control arm was greater than in the intervention arm.
- **Perceptions and knowledge of physical discipline, positive discipline, children's rights, and protection** – Primary Caregivers mentioned that their participation in the MTM Program had influenced their behavior with regards to disciplining their children and suggested that their changed practices had positively affected the relationship with their children.



When a child does something wrong, we would not give them food... But now we no longer do that.... I just call the child and talk to them properly and you will find even the children they have changed as they no longer misbehave

FGD with Primary Caregivers, intervention, Zambia



Primary Caregivers recommended that children should not be punished without being told where they had gone wrong and the consequences of bad behavior.



I used to beat up the child back then but once I got into this program I have changed... by not caning children when they do something wrong. When the child does something wrong... you do not cane him/her. We are taught that parents should talk to their children when they do something wrong.... This shows the child that you love him/her..."

FGD with female Primary Caregivers, intervention arm in Kenya



In Zambia, the proportion of Primary Caregivers who had knowledge of at least three basic children’s rights was higher in the intervention than in the control arm (78.4% vs 63.9%). In Kenya, this was not the case as the control had a slightly higher proportion than the intervention arm. Contrary to this quantitative finding, MTM caregivers in Kenya mentioned several rights of children (for example, the right to a name, to be registered and the provision of safety) during the FGDs, which demonstrated that they had the necessary knowledge.

c. Wellbeing: Parental stress and parenting self-efficacy.

- **Reduced parental stress** – The proportion of those who reported that ‘caring for their children had taken more time and energy than they had to give,’ ‘they felt overwhelmed by the responsibilities of being a parent,’ and ‘were worried about whether they were doing enough for their child’ reduced in both arms in Kenya. However, the proportion of change was higher in the intervention than in the control arm. In Zambia, the proportion of those reporting reduced parenting stress increased from baseline to endline in both arms, but the change was significantly higher in the intervention than in the control arm (Figure 3).

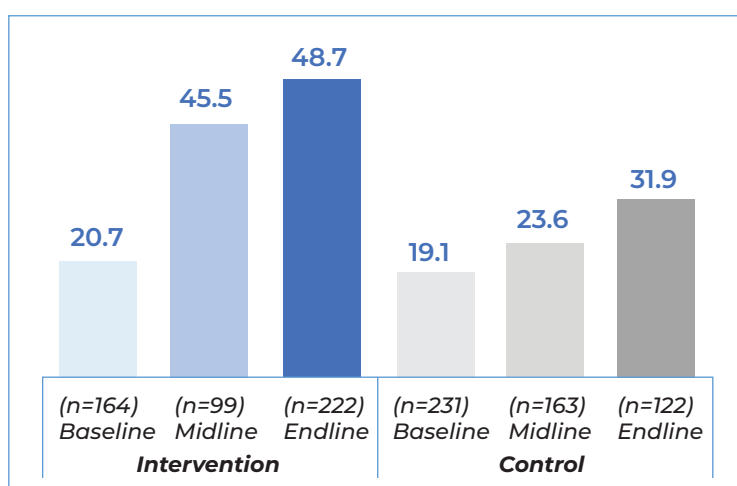


Figure 3: Percent of Primary Caregivers who reported decreased parental stress in the last month – Zambia

- **Improved parenting self-efficacy** – Primary Caregivers reported improved parenting confidence and parenting self-efficacy through the teachings they had received in the Caregiver Support Group meetings, ECD home visits and through faith leaders. Most caregivers reported that through such forums, they had learned new parenting practices, were able to share their experiences with challenges and get ideas from the ECD Promoters and other caregivers on how to resolve them.



My confidence has improved regarding the teaching I've got on how to take care of the child... My confidence has improved when the clergy teaches us the word of God and the fear of God. With this nothing disturbs your mind.

FGD with female Primary Caregivers, intervention, Kenya



d. Economic strengthening – benefits of Savings & Loan groups

This section provides information on the effect of the program on strengthening families' economic wellbeing through Primary Caregiver membership in Savings & Loan groups and business education.

- **Increased savings by Primary Caregivers** – There was an increase in the proportion of Primary Caregivers in the intervention arms in both countries who reported that they saved a portion of their income (Zambia: 34.3% increase in the intervention arm, 13% decrease in the control arm; Kenya: 81.8% increase in the intervention arm and 19.6% in the control arm). Overall, at endline, caregivers reported that they primarily used their savings to expand their businesses, and on hospital and food-related expenses. This signified that caregivers had access to financial reserves to support their various needs and that they acknowledged the importance of saving for such needs. Primary Caregivers reported improvements in their economic wellbeing through being able to save a portion of their income and take loans through the groups.



People now know about savings and are putting the lessons into practice. In the old days, they would just keep the money in homes in boxes but now we gather in groups and save as well as borrow to start businesses.... There is a great change in the way they are saving, taking care of children and feeding children

IDI with Saving & Loan Group Facilitator, Zambia



3.2 Fathers (secondary caregivers)²

a. Responsive care and stimulation activities in each domain

At endline, there was an increase in the number of activities that fathers in the intervention arms in both countries engaged in with young children to promote development within the different domains. In general, these changes were not significantly different from those in the control arm.



To say the truth, I never had time to play with my children, we had no communication, and I didn't want them to get me dirty. So, I never wanted my children close to me, but that does not happen anymore, because we are being taught and now, I spend time with them.

FGD with male secondary caregivers, intervention in Zambia



² All secondary caregivers were fathers

b. Perceptions on time spent intentionally interacting with child

The proportion of secondary caregivers who interacted with their children at least five days a week for a minimum of one hour increased in both study arms in Kenya and Zambia. Whereas in Zambia the proportional change in the intervention (31.9%) arm was greater than in the control (+26.9%), in Kenya, the increase was higher in the control than in the intervention. Notably, the qualitative interviews revealed that fathers in the intervention arm were aware of the need to create time to spend with their children.

“

I have the love and heart to spend time with the child but sometimes I need to go in the field to plough, so the child may come to me to want to play but, I may not be able to play with him even though I want to. So during the rainy season it is challenging.

FGD with male secondary caregivers, intervention, Zambia

”

c. Use of physical punishment

The proportion of secondary caregivers in the intervention arm in Kenya who reported that they had not spanked their children in the previous week significantly increased from baseline to endline (baseline at 7% and endline at 25%). In the control arm, the proportion of fathers who reported that they had not spanked their child/ren in the previous week decreased slightly, from 32% at baseline to 28% at endline.

d. Attitudes towards positive discipline/ physical punishment

Most respondents involved in the qualitative interviews, particularly those in the intervention arm, reported that fathers had changed their disciplining strategies and had adopted positive discipline strategies.

“

We used to beat them, and we never used to even teach them what was right and what was wrong. For as long the child has done something wrong, the mothers will just tell them that ‘when your father comes back, we will tell him’ and when I am told I would beat them.”

FGD with fathers, intervention, Kenya

”

“

Through the education, they have changed and currently they don’t beat children. They have been taught that instead of beating the child just talk to them.

FGD with faith leaders, Zambia

”

3.3 Gender roles in parenting

a. Change of attitudes and practices in parenting responsibilities

There were changes in attitudes and behavior concerning gender roles among both primary and secondary caregivers in the intervention arms in Kenya and Zambia. Most participants reported that fathers had become more involved in childcare and supported women in carrying out household chores. These changes were linked to the information they received from their spouses or to their direct participation in the MTM Program activities. However, it was noted that a few Primary Caregivers reported that even though some fathers had changed their attitudes, they were reluctant to change their behavior.

3.4 Children's developmental outcomes

Children's developmental outcome scores across the five domains (communication, personal-social, problem solving, gross and fine motor) of the Ages and Stages Questionnaire – Third Edition (ASQ-3) were better in the intervention than in the control arm in Zambia (Figure 4), suggesting that the MTM Program was successful in positively influencing this aspect. In Kenya, there were no significant differences in the developmental outcome scores of children in the intervention arm compared to those in the control arm. These results could be attributed to 'contamination' due to shared personnel across the two arms or to the teachings received from the health facilities as well as from the CHVs.

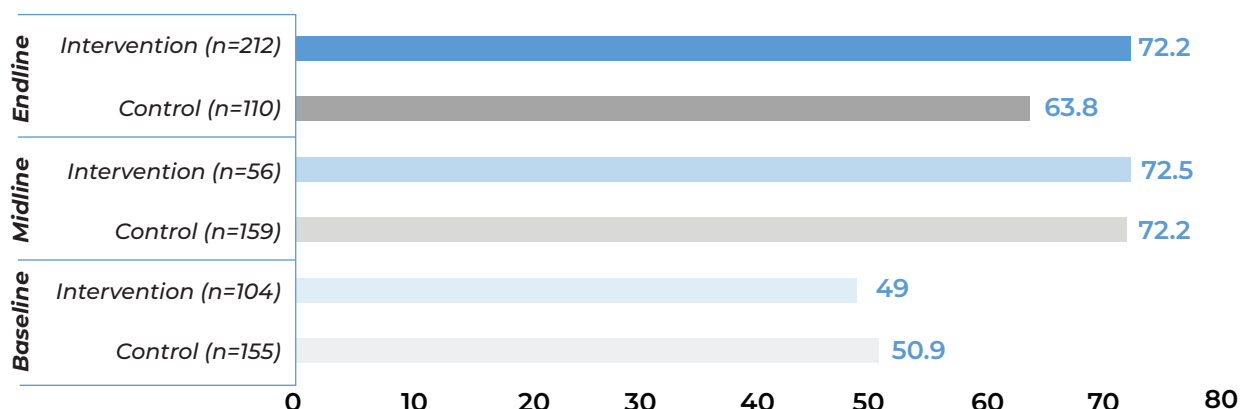


Figure 4: Proportion of children under five years who scored above cut-off (-2SD) in all domains – Zambia

In the qualitative interviews, faith leaders in Kenya mentioned that Primary Caregivers in the intervention arm had become more informed about children's growth and development and were able to detect delayed milestones in their children.



Mothers can look for any signs of disability in their children at an early age and are hence able to seek medical treatment early. They can check and keep track of the baby's weight. They are also able to check if the baby has a hearing problem by playing with some of the toys that make sounds.....



FGD with faith leaders in Kenya

PROCESS EVALUATION FINDINGS

4.1 Primary Caregiver Support & Learning Groups & ECD Home Visits

Primary Caregivers mentioned that the group meetings were helpful to them and had enabled them to improve their parenting practices. In addition, they indicated that through the home visits, they were able to: get specific help or answers to their parenting questions (Kenya: 89.3%; Zambia: 60%), get support for problems they were having with children (Kenya: 85.7%; Zambia: 18%), learn more about child development and parenting (Kenya: 92.9%; Zambia: 90%), share what they had been doing to practice new parenting skills and how their children responded (Kenya: 67.9%; Zambia: 42%), and get referrals for other services that they required (Kenya: 67.9%; Zambia: 8%). Most Primary Caregivers reported the benefits of *Moments That Matter*® Picture Cards³ as visual supports in conveying ECD messages. The combination of home visits, group meetings and faith leader activities reinforced the messages they received on parenting and enabled them to remember the activities they had been taught. The group setup enabled them to share experiences and forge strong relationships with others in the group, while during the home visits, they were able to discuss information that they were not comfortable sharing in a group setting.

When we see a picture, we do not forget and also follow the things that we see on the Facts, Association, Meaning, Action (FAMA) card.

FGD with female Primary Caregivers, Zambia

In a group when we meet, we benefit a lot because being in a group helps us get more information from others on what they know and learn and how they are benefiting through questions and discussions.....I cannot improve on my own, the ideas of others help me improve."

IDI with Primary Caregiver, intervention, Zambia

4.2 Effectiveness of ECD Promoters

a. Promoters' knowledge of activities promoting developmental domains

ECD Promoters in both countries were trained through two MTM workshops (8 days in total). The proportion of those who scored more than 80% in the knowledge and skills post-test administered at endline increased from baseline to endline. In addition, at endline, more than 60% of the ECD Promoters in Kenya and more than 75% in Zambia were able to name at least three activities that parents/ caregivers could engage in in the different domains to promote children's growth and development.

³ These are a combination of child care and development cards with FAMA questions - created by Episcopal Relief & Development, and cards on child rights & protection, health and nutrition from the CARE, Save the Children, Consultative Group on Early Childhood Care and Development, Hope worldwide and PACT Ethiopia.

b. Quality standards for Caregiver Support & Learning Group meetings and ECD home visits

In both Kenya and Zambia, the proportion of ECD Promoters who reported that they met the quality standards for Caregiver Support Group meetings increased (Kenya: 64% to 85%; Zambia: 69% to 76%) (Table 1). However, whereas the proportion of those meeting the group standards for home visits also increased in Zambia (60% to 76%), in Kenya, the proportion reduced slightly (83.5% to 79%) which could be attributed to the guidelines in place due to the Covid-19 pandemic for shorter durations of in-person visits. ECD Promoters planned their visits in advance and tried to ensure that caregivers were as comfortable as possible during the home visits or the group meetings.



I inform the caregivers about my visit in advance and allow them to share their opinions during the discussion..... Furthermore, we request humbly if they can allow us time to discuss with them. This helps us create a rapport with the caregivers.



IDI with ECD Promoter, Kenya

Table 1. Promoters' effective social & behavior change communication and participatory learning

Selected quality standards for group meetings – Zambian ECD Promoters	6 Months	Endline
Asked caregivers to share experiences on meeting's parenting topic	88%	100%
Sought commitment from caregivers to try the new parenting practice with their children	75%	75%
Asked caregivers to share successes in using positive parenting skills	81%	100%
Asked caregivers to share any challenges they had with positive parenting activities	69%	85%

c. Perceptions of Primary Caregivers

More than 80% of the Primary Caregivers in Kenya and 69% in Zambia rated the ECD Promoters' capabilities to lead Caregiver Support Group meetings as 'very good' or 'excellent.' At endline, most (90.1% in Kenya and 91.9% in Zambia) of the Primary Caregivers reported that ECD Promoters had improved the way they carried out ECD home visits, and the way they provided ECD messages and used visual guides/ pictures.

4.3 Effectiveness of Faith Leaders

a. Use of Faith Leader toolkit by type of interaction with Primary Caregivers

Faith leaders participated in a three-day MTM workshop. They mentioned that the toolkit (sermon guides and Bible studies on ECD and Parenting) was easy to use and had improved their work with Primary Caregivers in their congregations – citing counselling, sermons, family activities and small group activities.



We were taught on sermon preparation. We use information and toolkit from the MTM to prepare our sermons and deliver in our churches even in meetings... The tool kit helps a lot and gives us the guideline to follow while teaching about MTM. When delivering to the people we get to deliver information with substance.”

FGD with Faith leaders, Kenya



b. Promotion of ECD and Parenting Nurturing Care

MTM faith leaders reported covering nurturing care in general. Three specific areas on which a significantly increased proportion of faith leaders reported included reducing physical punishment and increasing positive discipline; children's safety, security & protection; and activities to help young children learn. MTM caregivers, including secondary caregivers, mentioned that they had received positive parenting information from faith leaders during church sermons, ECD home visits and Caregiver Support Group meetings.

4.4 ECD Committees/MTM Faith Leaders' Consortium

ECD Committee members in Zambia were actively engaged in the MTM Program activities, providing oversight of ECD Promoters, and networking with service providers and stakeholders within the community. In Kenya, rather than an ECD Committee comprising representatives from different parts of civil society and government, the MTM Program formed a Faith Leaders' Consortium. Members came from different religions and Christian denominations in the area. The Faith Leaders' Consortium was able to undertake many of the functions including coordination of different religious institutions and networks to reinforce nurturing care, child protection and other challenges as they arose.

RESULTS ON COST-EFFECTIVENESS

The MTM program cost-effectiveness evaluation investigated the costs and cost-effectiveness of the community-led ECD program in improving caregivers' parenting knowledge and practices, and child developmental outcomes comparing cost-effectiveness ratios between the intervention and the “do nothing scenario” in Zambia and Kenya. The evaluation focused on MTM's essential parenting empowerment components directly implemented by partners and supported by Episcopal Relief & Development. The cost-effectiveness estimations were based on the costs of the required components and/or activities needed to launch and execute the MTM Program. The costing was done over the same 30-month impact and process evaluation period.

In both countries, the main cost driver was the program staff personnel; tied for second largest cost drivers were the ECD Promoters' stipends (which defray the cost of their volunteering) and the monitoring travel/transportation costs. Training and equipping of ECD Promoters was third. Due to mixed impact results in improvement of Primary Caregiver parenting activities and strengthening child development, the findings showed that the MTM Program was only cost-effective for a few of the Primary Caregiver outcome indicators and child development domains, varying somewhat by country. On the other studied indicators, the cost-effectiveness calculations showed inconclusive results.

Nevertheless, the MTM Program as a community-led ECD parenting intervention does represent a potentially affordable / cost-effective approach to improve parent/caregiver parenting outcomes and child development outcomes in areas lacking ECD services. Altogether, the findings seemed not to represent a cost-effective intervention in Kenya, while in Zambia, the findings seemed to suggest that the community-led ECD program represented a cost-effective investment for improving nurturing care and children's developmental outcomes. The cost of a parenting empowerment program may be affected by the choice of implementing partner, that is, a civil society organization versus government health system, with the latter likely to incur fewer costs. Considerations of the effectiveness of the MTM program should include impact at family/household and community levels, as capturing these may result in greater cost-effectiveness.

CONCLUSIONS AND SELECTED RECOMMENDATIONS

5.1 Conclusions and recommendations by impact evaluation objectives

The objectives of improving the MTM Program effectiveness on caregivers' responsive care, early learning interactions, security and safety practices with their children aged 0-3 years were partially met. Primary Caregivers in the MTM Program improved their practices in early learning interactions, responsive caregiving, and positive discipline. However, there was no major difference across the intervention and control arms on these practices among secondary caregivers in both countries, but rather only on a limited set of outcome indicators. Based on these findings, we make the following recommendations:

- **Strive to have Primary Caregivers meet the standards for early learning and interaction of at least five days a week and more than one hour each day.** There were no existing benchmarks based on our literature search, and the research team recommends the above standard based on the mean scores and trends observed among the study population at baseline. This was corroborated by the MTM Program team who mentioned that such standards are feasible as these are activities that caregivers in rural areas (who are often away during the day) can engage in.
- **Improve on the strategy of social and behavior change for caregivers to increase the use of positive discipline and reduce the use of physical punishment.** One way would be by scheduling the *Moments That Matter*® Faith Leader Training at the outset of the program implementation, so that faith leaders could have greater involvement in social norms and behavior change regarding the use of positive discipline instead of physical punishment.
- **Strive to have all Primary Caregivers participate in the Savings & Loan Groups and offer opportunities for involvement to fathers/secondary caregivers.** The benefits to caregivers and children are such that although about 80% of study Primary Caregivers were Savings & Loan group members, more should be done to encourage all to join.

However, some caregivers may not be eligible as they were interested in being part of the groups but were not able to set aside some money for saving – a requirement for membership. The program should also expand this component to offer opportunities to fathers/secondary caregivers to join or form separate Savings & Loan groups.

- **Refine or develop a robust father/male caregiver engagement strategy.** Even though male involvement in the MTM Program activities such as Caregiver Support Group meetings and home visits slightly improved from the midline to endline, there is a need to have locally developed father/male involvement strategies, with planned activities implemented from the project start and run throughout the cycle. Notably, the program implemented activities such as sensitization, use of male champions, and football tournaments (only in Zambia), but these did not begin until after the midline evaluation (at 12 months).

5.2 Conclusions and recommendations by process evaluation objectives

The MTM Program was largely implemented according to the set standards, that is, standards for facilitation of home visits, group meetings, support and mentorship of the volunteers and the number of households per ECD Promoter. Monthly group meetings and home visits over a period of 24 months of program implementation seemed to work well. Further, in both Kenya and Zambia, the MTM Program was perceived to have reached the intended vulnerable families and was deemed acceptable, appropriate, and feasible. Fidelity to the MTM Program standards was demonstrated. Sustainability was evidenced through caregivers' ability to consistently implement what they had learnt through the Program activities. The Faith Leaders' Consortium, ECD Committees and faith leaders supported continuity of positive parenting practices within the community. The dual model approach of home visits and group-based ECD learning, and support has proven to be more beneficial in changing targeted behaviors than using a single-platform approach.

Based on the findings, we make the following recommendations:

- **Translation of ECD Promoters' materials to the local language.** To improve the implementers' effectiveness in delivering the program activities, ECD Promoters indicated that FAMA cards, health and nutrition picture cards, home visit guide, caregiver group meeting guide and caregiver group meeting monthly session guide should be translated to their local language.
- **Duration.** The findings that some of the most significant change on specific outcomes happened at midline suggest that certain components of the program could be shortened. We recommend that considerations be made on the duration of the program, as after midline, there were no significant changes observed on some of the outcomes, such as decrease in parental stress, and increase in responsive care and early learning activities. However, lack of any significant changes in some of the outcomes could be related to the effects of the COVID-19 pandemic, which may have affected caregivers' ability to engage with their children, or led to an increase in parenting stress.

5.3 Conclusions on cost-effectiveness results

A community-led ECD intervention presents a potentially affordable approach to improve caregiver and child outcomes. Ensuring similar ECD interventions are not being implemented concurrently is a critical step in demonstrating that these specific ECD interventions are cost-effective.

5.4 Implementation research

Study design in future research activities. To best test the impact of a program, there needs to be pure randomization of the different arms, which also need to be further apart geographically to minimize the possibility of cross-contamination.

Recommendation on scaling to similar settings

There were sufficient outcome and effectiveness results to support the recommendation to scale the MTM Program to other rural communities and similar settings in sub-Saharan Africa. The aspects of the Program leading to positive outcomes, such as the ECD home visits, Primary Caregiver Support Group meetings, Savings & Loan Groups, use of local volunteers to serve specifically as ECD Promoters would work well at scale. Others such as staff ratios may be influenced by geographical characteristics and the density of households within a specific area and require some adaptation.

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