Ghana Early Childhood Development Learning Report Brief

Caregiver, Child, and Community Health Worker Assessment

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Introduction

The Ghana Early Childhood Development (ECD) 0–3 program was launched in December 2016 as a subcomponent of the US Agency for International Development-supported Maternal and Child Survival Program (MCSP). The primary focus of the MCSP Ghana ECD program was to support the integration of ECD interventions into existing health and nutrition activities in Ghana. The program implemented activities through the Community-Based Health Planning and Services (CHPS) initiative, building upon MCSP's existing engagement focused on capacity-building of CHPS health workers for improved health outcomes. The aim of the ECD program was to engage parents and caregivers in stimulation and responsive parenting, in which caregivers respond to their children's physical and emotional needs from birth onward by responding to children's cues, playing, talking, singing, and providing exposure to words and numbers, even before children can talk. MCSP was careful to promote integration of ECD into daily routines to promote frequent, developmentally appropriate interactions between a caregiver and child.

The objectives of this assessment were to:

1. Monitor changes in CHPS staff knowledge on psychosocial stimulation practices.
2. Understand perspectives about the ECD activities from community health officers (CHOs), community health volunteers (CHVs), and caregivers who were engaged in the initiative.
3. Monitor changes in caregivers' behavior and child development outcomes for those participating in the MCSP Ghana ECD program.

Methods

This study used a longitudinal, mixed-methods approach to document changes in perceptions and practices around psychosocial stimulation and responsive care in communities implementing the MCSP ECD program in Upper West and Eastern regions. The study focused on three key stakeholder groups: frontline health workers (i.e., CHO, CHV, and other CHPS staff), social welfare officers, caregivers of young children, and children 0-3 years old. Tools used and samples obtained are described in detail in the following sections. The study protocol was approved by the Internal Review Board at Johns Hopkins University as well as the Ghana Health Service Ethics Review Committee.

Results

Health workers

Results from assessments of health worker knowledge of early stimulation before and after participating in the MCSP ECD 0–3 trainings in program year 1 (PY1)1 and PY2 showed significant gains in short-term knowledge transfer for both implementation regions (see Figure 1). In addition, data collected from PY1 participants approximately 1 year after participation in the training demonstrated that most health workers retained the knowledge gained from the training (see Table 1). These results show that health workers with varying levels of experience appropriately understood key concepts in the newly created MCSP Ghana ECD 0–3 program. This is notable given the multilevel cascade-training model utilized in this project: national- and regional-level health service staff received the MCSP Ghana ECD 0–3 training of trainers and then cascaded the knowledge to district-level staff, who then led trainings for CHPS staff in their jurisdictions. These findings validate the utility of the MCSP ECD 0-3 Toolkit and the training scheme.

Figure 1. PY1 and PY2 average pre- and post-test scores across providers

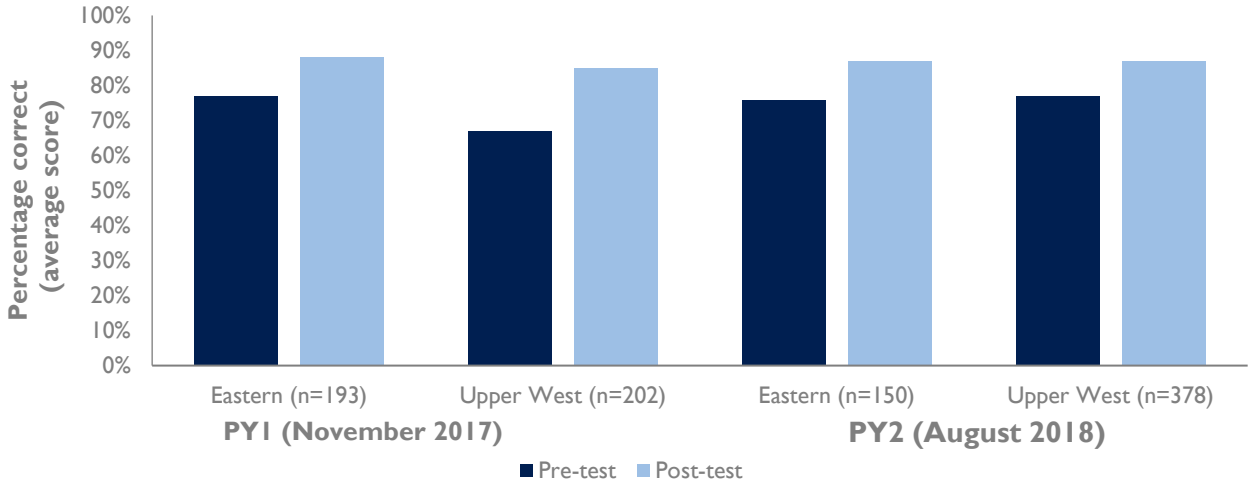


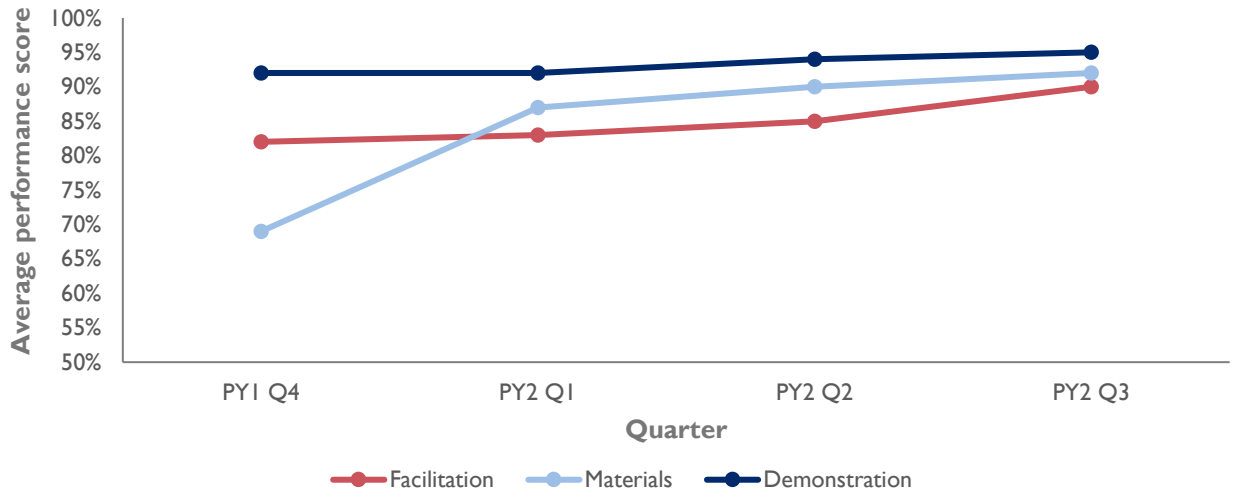
Table 1. MCSP Ghana early childhood development training knowledge retention results by region

District	Jirapa		Nsawam Adoagyiri		Wa West	
Competency Theme	November 2017 (n = 136)	February 2019 (n = 30)	November 2017 (n = 127)	February 2019 (n = 32)	November 2017 (n = 134)	February 2019 (n = 30)
Overall score	85%	87%	91%	85%	82%	81%
Early brain development	89%	88%	90%	85%	84%	82%
Psychosocial stimulation for children at different ages	78%	85%	93%	84%	76%	80%

[1] PY1: December 2016–February 2018, PY2: March–December 2018, PY3: January–June 2019

To support CHPS staff's continued learning and improvement in ECD, MCSP conducted mentorship and supportive supervision visits to CHOs who facilitated parenting sessions at 35 mother-to-mother support groups (MTMSGs) meetings and 15 child welfare clinics (CWCs). During the meetings, observers rated session facilitators' performance using the MCSP-developed observation checklist.2 In total, MCSP observed 50 CHOs during delivery of parenting sessions at MTMSGs3 and CWCs.4 By the end of PY2, these 50 CHOs received four observation visits. Over time, CHOs improved their ability to integrate psychosocial stimulation and responsive care into their routine health and nutrition activities, and to effectively facilitate parenting sessions (see Figure 2). Data from the observation checklist indicated that CHOs maintained a high score for demonstration of psychosocial stimulation activities and the learnings from their initial training. Similarly, CHOs continued to improve their skills in facilitation of parenting sessions over time.

Figure 2. Average observation checklist scores for community health officers delivering parenting group sessions in Eastern and Upper West regions (n = 50)



Caregivers in both regions reported strong facilitation skills from the CHOs and CHVs who led their ECD sessions. They shared that health workers were inclusive and respectful, and mentioned that demonstrations of different activities were very helpful for their understanding. A caregiver from Eastern Region said: "We understood all the topics because she demonstrated everything that she taught. For instance, she spread a mat on the floor and used a doll to teach us the proper way of handling the baby so we understood very well." Active demonstrations and hands-on practice are key components of the MCSP Ghana ECD 0–3 facilitation guidelines, so these responses suggested that health workers were faithfully implementing the program material.

Regarding perception of the ECD sessions, the majority of CHOs/CHVs and caregivers generally reported being motivated to add the ECD sessions into their routines. Health workers and caregivers noted that it worked best to hold sessions on a monthly basis at MTMSGs or CWCs. Health workers in the district in Eastern Region predominantly reported using CWCs as the platform for ECD sessions, whereas health workers in Upper West reported using both CWCs and MTMSGs. When asked how easy or difficult it was to organize the ECD group sessions, a CHO from Eastern Region stated: "In our urban setting, it is not like the rural area where you will be aware of how the community members move. You know they go out and by 7:00, everybody would have come back from the farm. In our setting, you can even wait and go as late as 4 p.m. and 5 p.m. but will not meet anyone because of the work schedules. But we realized that as for CWC, come what may, the parent has the time to join the CWC even if she has some work to do." Once venues

[2] Standards for facilitation include CHOs/CHVs are well organized, have clear roles/responsibilities, and actively involve parents in discussions/problem-solving. Standards for materials use include CHOs/CHVs have all materials and display proper utilization of materials. Standards for demonstration include accurate modeling of games and provision of positive feedback/correction on caregiver game practice.
[3] MTMSGs are groups of mothers who meet at CHPS compounds for health-related information sessions.
[4] CWCs are a service provided at the CHPS compounds and health clinics that comprise routine growth monitoring and vaccinations. Caregivers who attend CWCs are gathered in a group to share health information.

were identified, participation was generally strong. Health workers reported a wide range in the sizes of their ECD groups, from 10 in some places up to 60 in others, with the most common size being 15–30. There were a few challenges, including local language barriers. These findings help to inform the roles and responsibilities of CHOs/CHVs. CHVs tend to speak the local language in communities they serve and may be better positioned to deliver sessions in some communities.

Caregivers

To document changes in caregiver behaviors and child development over time, MCSP employed a caregiver survey that included a detailed questionnaire about childcare practices and the short form of the Caregiver Reported Early Development Instruments (CREDI).[5] These data were collected to gain a better understanding of the caregivers being served by the program and to investigate relationships between caregiving practices and child development in implementation areas.

Two subdistricts in Eastern Region and six subdistricts in Upper West Region were randomly selected for inclusion in the study. Within each subdistrict, 10 communities were randomly sampled, and 12 families per community were interviewed. In total, 253 caregiver-child dyads were interviewed at both the pre- and post-test. The majority of the respondents were mothers (98%), and the rest were grandparents, fathers, and other family members. On average, children in the sample were 21 months old (1.75 years), with girls comprising 52% of the sample. Results from the caregiver questionnaire display significant increases in psychosocial stimulation and responsive care practices in both regions (see Table 2).

Table 2. Stimulation and care practices in the past week (n = 253)

	Baseline (July 2018)	Endline (February 2019)	Significant Difference
Average number of stimulation/care activities in the past week (out of eight listed in this table)	3.3	4.0	**
Read	16%	27%	**
Tell story	24%	29%	
Sing	68%	67%	
Take outside	57%	70%	**
Play	39%	59%	***
Draw/write	19%	45%	***
Teach	34%	50%	***
Hug	79%	80%	
Average time child spends in care of another child (hours per day)	1.5	2.1	***
Average time child spends alone (hours per day)	0.8	1.4	***

Note: *p < .05, **p < .01, ***p < .001

Focus group data from health workers and caregivers also contained numerous references to positive changes in caregiving behaviors. Health workers and caregivers most commonly reported decreases in harsh discipline practices and increases in play. In addition, these data suggested that caregivers were receiving important health messages during the ECD sessions (e.g., handwashing, exclusive breastfeeding, sanitation, and malaria prevention). Data collected did not show substantial differences in caregiver behavior change related to

[5] CREDI has been piloted in 17 low-, middle-, and high-income countries. Results from these pilot suggest that the CREDI short form is valid and reliable to measure children's skills and behaviors. CREDI is an open-source tool and consists on a caregiver report format that requires limited training and implementation time. The tool measures motor, cognitive, and socioemotional skills of children under 3 living in low-resource settings.

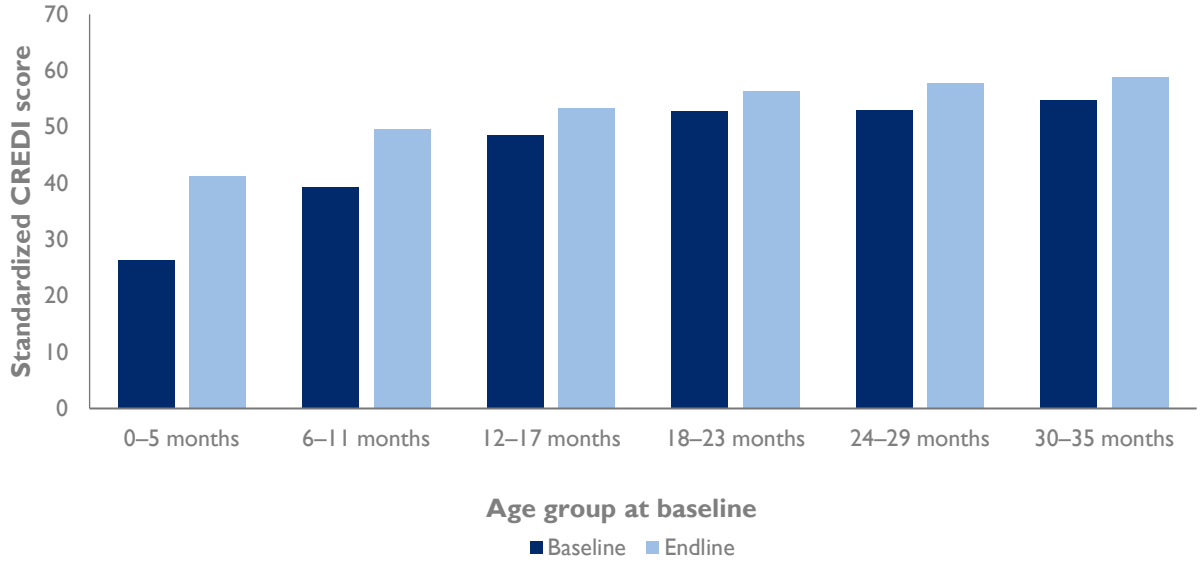
region of country, suggesting that caregivers in rural and urban areas were both benefiting from the MCSP ECD messages.

These results suggest that the parenting sessions contributed to positive caregiver behavior change. This is a promising result given the relatively short period between the pre- and post-test (July 2018–February 2019) as well as the relatively light-touch implementation. From participation in approximately six parenting sessions spread over 6 months, caregivers reported significant increases in psychosocial stimulation practices with their young children. More in-depth observations should be conducted in the future to confirm these self-reports, but the self-reports provide encouraging initial indications of behavior change. Future research should also investigate which parents are more likely to report engaging in fewer stimulation and care activities with their children over time, as this may indicate that more intensive or different services are required by these families.

Children

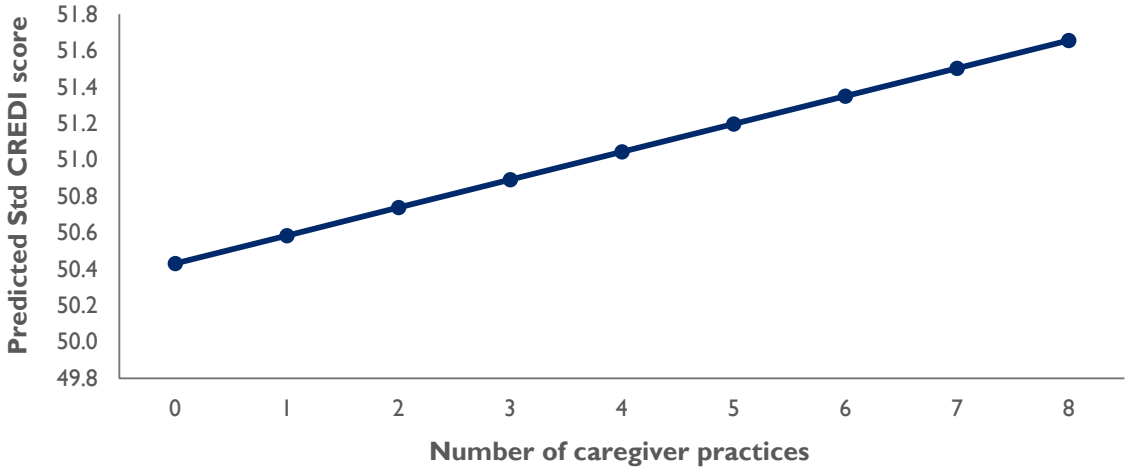
Data from multiple sources also suggest that children ages 0–3 have already benefited from improvements in caregiving practices and home environments. This study cannot make causal inferences about the impact of the program on children, but trends in quantitative and qualitative data suggest that the MCSP Ghana ECD 0–3 program is contributing to positive development for young children. CREDI data showed statistically significant improvements in overall child development in both regions over time (see Figure 3). Caregivers in Upper West Region reported stronger child development compared to caregivers in Eastern Region at endline. In addition, multivariate regression analyses found that children whose caregivers reported engaging in more psychosocial stimulation and responsive care practices, those with more reading materials in the home, and those with greater dietary diversity displayed stronger overall development compared to children of caregivers who reported fewer of these nurturing caregiving practices (see Figure 4). These results reinforce research shared by the global ECD community: children who receive appropriate health, nutrition, psychosocial stimulation, and responsive care are the mostly likely to achieve optimal development.[6]

Figure 3. Changes in child development by age group



[6] Black MM, Walker SP, Fernald LCH, et al. 2017. Early childhood development coming of age: science through the life course. Lancet. 389(10064):77–90. doi: 10.1016/S0140-6736(16)31389-7.

Figure 4. Relationship between child development and caregiving practices



Caregivers also reported seeing changes in their children during focus group discussions. Many caregivers provided examples of their children becoming more interactive and more communicative about their needs. Caregivers often gave specific examples of the different types of games their children now play, which include singing alphabet songs, pretending to cook, playing football, and generally following directions well. A caregiver from Eastern Region said: "Previously, my baby was too quiet; now he can call me to come and play football. When I kick, he will also kick back, and now he's has changed into a very active child." Another gave the example: "Initially, my 2-year-old child will just put the hand into food and eat without washing the hand, but after I learned and taught him these things, he will tell you 'my hand,' and you have to wash the hand before he will eat the food. Sometimes too when he is done, he will tell you 'Mum am done,' and I will tell him this is water, come and wash your hand. Sometimes too I ask him '[Son], which part is this?' and he will say, 'This is my head.' [Son] which part is this 'my hand.' Although he hasn't started schooling, through those games he has learned a lot of things because of what we learned and taught them."

Reports from caregivers and health workers suggest that the MCSP Ghana ECD 0–3 program positively contributed to children's development, even after a short period of implementation. Mothers reported that their children were showing improved learning and development over time. Health workers corroborated these observations noting that harsh discipline practices were substantially reduced and that they observed caregivers engaging in more learning and play activities with their children. A CHO from Eastern Region stated: "I could see that the insults and beatings have minimized. When you go to the field to check whether learning has taken place or not, you would see that the beatings and insults have minimized." Another CHO from Eastern Region said: "Yes, I have a child in my community who was not walking at a certain month, and the mother of the child started practicing the sessions she has learned, and in no time, the child started picking up and has even started walking as we speak, so because of that, the mother does not want to miss one session."

Recommendations

The MCSP ECD 0–3 approach aligns with the global movement toward integrated ECD services for young children as codified in the recently released Nurturing Care Framework. The quantitative and qualitative results from this assessment suggest that the MCSP Ghana ECD 0–3 program successfully trained and built the capacity of 2,075 service providers in Upper West and Eastern regions to carry out early stimulation activities. This experience also generated important suggestions for future ECD work in Ghana. Recommendations to the Government of Ghana, particularly the Ghana Health Service, and other ECD partners include:

Platforms and Attendance

- It is important to continue reaching parents through various entry points and platforms. The health sector provides the most promise for leadership of the integrated ECD programs for children ages 0–3, but no one entry point will be adequate for serving all children. Cross-sectoral collaboration and linkages with the Ministry of Gender, Children, and Social Protection and the Ghana Education Service will strengthen the impact of such programs, with a wide range of providers reinforcing key ECD messages from multiple sources. Parenting groups led by frontline health workers can be complemented by efforts to reach parents through other outlets, such as church groups, home visits, or social media.

- To support continued attendance at parenting groups, providers must highlight the importance of engaging in early stimulation throughout the critical period of brain development (i.e., from birth to 3 years). This is particularly important for groups meeting during CWCs, as caregivers/children typically end frequent routine visits for growth monitoring at age 2 in Ghana.

- The MCSP Ghana ECD 0–3 program used multiple implementation platforms for program delivery and sensitization, including MTMSGs, CWCs, home visits, religious fellowship groups, community meetings (*durbars*), parent-teacher association meetings, and counseling during antenatal care visits. In future programming, MCSP recommends each community select one implementation platform for full session delivery and at least one more for sensitization.

Behavior Change

- Quantitative and qualitative data suggest that the program made substantial contributions to behavior change for caregivers of young children in urban and rural areas of Ghana. However, global research demonstrates that behavior change takes time and reinforcement. For example, the most common behavior change reported during focus group discussions was a decrease in harsh discipline. While this represents a substantial improvement in the environments in which children are developing, it suggests that perhaps some of the nuanced messages about different kinds of play and stimulation activities were not yet internalized by caregivers. Continued focus on these messages will be necessary to fully achieve the desired outcomes of ECD programs. ECD programs should be designed and implemented as ongoing, similar to the continuous health services received by young children.

Training

- Future trainings should carefully consider the roles of CHPS staff and CHVs within target communities. Different cadres of frontline workers may be more appropriate to lead program delivery in different communities due to language barriers and other factors. Collaboration between these groups is often needed to fully support implementation activities.

- Future program implementation should also support training for supervisors within the CHPS system to help maintain quality of psychosocial stimulation message delivery. This includes training via the MCSP-created ECD 0–3 eLearning modules.

Engaging Male Caregivers

- Male caregivers should be specifically targeted in future programming. If male participation is low in group settings, finding other ways to reach male caregivers will be important (e.g., with home visits or through social media outlets). Male participation and contribution are critical both for improving their interactions with children and for facilitating mothers' attendance at sessions and behavior change in the home. Future programs could include mass sensitization and campaigns geared at changing attitudes of male caregivers.

Research and Evidence

- Future programs should incorporate causal research to better understand the impact of integrated ECD programs on children's development in Ghana. This research could focus on questions of dosage and duration of ECD activities—how much input is needed to make significant improvements in caregiving behaviors and child development? To implement high-quality research design, these activities should be planned and budgeted from the start of program implementation.

- Strong ongoing monitoring data should also be incorporated into future work, especially programs focused on scaling up services to help ensure quality.