



THE WORLD BANK

OVERVIEW OF EARLY STIMULATION INTERVENTIONS AND RESEARCH IN TANZANIA



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The Government of Tanzania is considering the inclusion of early stimulation as part of a package of interventions aimed at improving the child development outcomes in the first 1,000 days. To support these considerations, an informal mapping exercise of early stimulation interventions and a pilot study of early stimulation practices was undertaken. The purpose of this exercise was to:

- *Assess the scope and coverage of existing early stimulation interventions in Tanzania;*
- *Consolidate the best evidence and lessons learned from Tanzania, the region, and the world;*
- *Collect information on strengths and limitations of current parenting practices in Tanzania; and*
- *Develop recommendations for the design of an early stimulation intervention.*

This paper presents the findings of this analysis. It begins with a rationale for focusing on early stimulation, followed by an overview of the enabling environment needed, including policy and institutional arrangements. The paper then presents the scope, coverage, lessons learned from existing early stimulation interventions in Tanzania, and concludes with a series of recommendations.

I. Beyond Surviving: Rationale for Focusing on Early Stimulation in Tanzania

Tanzania is home to over eight million children under the age of seven, and while indicators related to child health and development have improved in recent years, significant problem areas remain. The under-five mortality rate has nearly halved between 2004—05 and 2015—16.¹ During the same period, Tanzania reduced the stunting rate by 10 percentage points due to a combination of increased vaccination and use of mosquito nets, safe disposal of stools, and increased skilled delivery.² However, stunting is still very high, with more than one in three children affected. In terms of education, almost two-thirds of children between the age of five and six years do not attend preschool. In Tanzania, there is no measurement of overall child development outcomes, including socio-emotional and cognitive development, for children aged zero to three. For children enrolled in Standard One (at an average age of seven), child cognitive development is low with an average score of less than 50 percent for both executive functioning and socio-emotional development. Children in poverty are particularly at risk because they are more likely to suffer from threats to their physical, emotional, and cognitive development.³ About 11.9 million Tanzanians live in poverty, and 4.2 million live in extreme poverty. Households with children have the highest poverty rates, and the fertility rate is higher amongst the poor. In contrast, households without children appear to be less poor. The average Tanzanian woman is expected to give birth to five to six children by the end of her lifetime, and this number increases to over seven for women in the poorest segments of the population.⁴

Early stimulation, especially in the first 1,000 days,⁵ has the potential to support child development.

Early stimulation consists of doing simple, everyday activities with a child, like talking, singing, reading, and playing. During the early years, the brain matures faster and is more malleable than at any other time of life. The most rapid growth occurs in the first 1,000 days, and by the age of five, 90 percent of brain development is complete.⁶ Brain development is shaped in part by genetics and in part by the child's environment. When adults respond appropriately to a baby's gestures, babbling, or cries, neural

¹ ICF International, 2015. The DHS Program STATcompiler. <https://www.statcompiler.com>. September 24 2017.

² Skoufias et al. 2017. Decomposition of determinants on child health over years. Draft. World Bank.

³ World Bank. 2017. Measuring Early Learning and Quality Outcomes (MELQO) Preliminary Findings Report: Mainland Tanzania (forthcoming). The World Bank.

⁴ World Bank 2015. Tanzania Mainland Poverty Assessment. Washington DC. WBG.

⁵ The first 1,000 days refers to the period from conception to two years of age.

connections are strengthened, thereby contributing to communication and social skills. Conversely, when adults do not respond to the baby's gestures or cries, or when their responses are inappropriate or unreliable, brain development may be disrupted, impairing mental, physical, and emotional health.

Early stimulation is dependent on the quality of interactions between caregiver and child. During the first year, infants and caregivers learn to recognize and interpret both verbal and nonverbal communication signals from one another. This reciprocal process forms a basis for the emotional bonding or attachment between infants and caregivers that is essential to healthy social-emotional functioning. Caregivers who are sensitive to their child's functioning are essential to the child's healthy brain development, as they are better able to support and build the child's cognitive capacity.⁷ Caregiver responses that are inconsistent, unresponsive, or absent can result in a twofold blow; not only does the absence of stimulation potentially disrupt brain development, insensitive caregiver responses can trigger damaging stress hormones that negatively impact a child's developing brain.⁸ The importance of responsive caregiving is particularly acute in challenging and impoverished environments, where increased likelihood of low birth weight, illness and exposure to stress requires caregivers to be particularly sensitive and responsive to the child's needs in order to shield the child from adversity.⁹ Theoretical and empirical research in responsive caregiving indicates that a caregiver's capacity to recognize and correctly respond to an infant or child's signs of hunger or satiety can result in a better-nourished child.^{10,11}

Investment in early stimulation programs, specifically those that work primarily with parents, can support children to reach their overall developmental potential.¹² Exposure to early stimulation has been associated with significant improvements in cognitive, executive, and socio-emotional functioning.¹³ Children who participate in early stimulation programs are more likely to perform well in school and have better labor market outcomes.¹⁴

⁶ Grantham-McGregor et al. 2007. Developmental Potential in the First 5 Years for Children in Developing Countries. *The Lancet* 369 (9555): 60–70.

⁷ Landry, S.H., Smith, K & Swank, P. 2006. "Responsive Parenting: Establishing Early Foundations for Social, Communication, and Independent Problem-Solving Skills" *Developmental Psychology*. Vol. 42, No. 4, 627–642. WHO.

⁸ Harvard Center for the Developing Child "Key Concepts: Serve and Return" (<https://developingchild.harvard.edu/science/key-concepts/serve-and-return/>)

⁹ Grantham-McGregor et al. 2007. Developmental Potential in the First 5 Years for Children in Developing Countries. *The Lancet* 369 (9555): 60–70.

¹⁰ Black, M & Aboud, F. 2011 Responsive Feeding Is Embedded in a Theoretical Framework of Responsive Parenting, *Journal of Nutrition*, Symposium: Responsive Feeding—Promoting Healthy Growth and Development for Infants and Toddlers.

¹¹ Aboud F., and S. Akhter. 2011. A cluster-randomized evaluation of a responsive stimulation and feeding intervention in Bangladesh. *Pediatrics*, 127: 1191–97.

¹² Engle PL, Fernald LC, Alderman H, et al. 2011. Strategies for reducing inequalities and improving developmental outcomes for young children in low-income and middle-income countries. *Lancet* 378: 1339–53.

¹³ Cognitive skills allow children to maintain attention, understand and follow directions, communicate with others, and solve progressively more complex problems. Executive function skills help children to focus and pay attention, plan and manage time, set goals and regulate their own behaviour in different contexts. Socio-emotional abilities includes the child's experience, expression, and management of emotions and the ability to establish positive and rewarding relationships with others.

¹⁴ J-PAL Policy Bulletin. 2016. "Early childhood engagement for lifelong learning" (<https://www.povertyactionlab.org/sites/default/files/publications/early-childhood-engagement-for-lifelong-learning.pdf>)

Interventions for children in the first 1,000 days include coaching on positive discipline methods at home for caregivers, as well as promoting increased frequency of quality interventions through improving parental knowledge of responsive caregiving, nurturing, protection, and stimulation activities. These interventions can also be delivered through health and nutrition platforms or via crèches or childcare centers.^{15,16} Examples of early stimulation interventions are included in Figure 1 below.

Figure 1 Examples of Early Stimulation Interventions



II. Parental Practices in Tanzania

To assist government considerations in putting together a package of interventions to support child development, the World Bank conducted a pilot study that explored early stimulation practices in the Katavi region and Zanzibar, Tanzania.^{17,18} The study found that parents in Katavi and Zanzibar have clear strengths and some shortcomings when providing early stimulation to their young children. In Katavi, most young children (71 percent) reportedly saw their father on a daily basis and 75 percent of caregivers were observed verbally responding to their children’s speech. Both of these features are strong predictors of children’s development scores. In both Katavi and Zanzibar nearly all parents reported talking to or singing traditional songs to their children and felt that their children understand them. All parents, in both areas, reported making toys for their children using locally available material such as corn husks, old socks, and clay. At the same time, some parenting practices could be strengthened. Only three percent of children had one to two books in their house, and less than one in 100 parents told their children stories. This represents an area for improvement, as both indicators are associated with higher child developmental scores.

¹⁵ Naudeau, S. 2011. Investing in young children. Washington DC: World Bank.

¹⁶ Engle et al. 2007. Strategies to avoid the loss of developmental potential in more than 200 million children in the developing world. Lancet, vol 369, January 20.

¹⁷ The World Bank. 2018. Early Childhood Stimulation in Tanzania: Findings from a pilot study in Katavi region.

¹⁸ The pilot explored early stimulation practices qualitatively and the links between these early stimulation practices and development of children 0-3 years of age quantitatively. A comparative qualitative case study was also carried out in Zanzibar region. Data was gathered through pilot surveys and observations of 170 caregiver-child dyads in Katavi as well as 11 focus group discussions with caregivers in Katavi and 12 focus group discussions with caregivers in Zanzibar. The study uses and validates the CREDI tool to measure children’s development and the HOME tool to measure the home environment and parenting practices.

III. Enabling Environment for Early Stimulation in Tanzania

i. Policy Environment

In recent years, the Government of Tanzania has acknowledged the importance of ECD, early stimulation, and the role of parents in various policies, acts, and national plans across sectors. This includes the following:

- **The Child Development Policy (2008)** aims to guide the fulfillment of children’s rights, welfare, and development in Tanzania from pregnancy to age 18. While the policy acknowledges the importance of ECD, particularly nutrition, health, parenting education, and the availability of day care centers, it stops short of advocating for a comprehensive and multi-sectoral approach. There have been discussions around revising the CDP to include a more comprehensive approach to ECD, and some initial re-drafting of the related sections of the policy. However, these changes are yet to be formally approved.
- **The Law of the Child Act (2009)** aims to protect the rights of the child and to promote, protect, and maintain the welfare of a child. The Act reinforces the importance of parents providing guidance, care, assistance and maintenance for the child, and assurance of the child's survival and development. It also provides some basic operational requirements for child care centers and crèches to be formally registered.
- **The Five-Year National Plan of Action to End Violence Against Women and Children (NPAVAWC 2017–18 – 2021–22)** was developed to eradicate violence against women and children in the country. It notes that school readiness, as well as strengthening family support, is a priority under NPAVAWC given that positive parenting and well-adjusted children have a critical role in reducing the cycle of violence. It proposes increasing ECD and stimulation programs by 50 percent.
- **The National Costed Plan of Action for Most Vulnerable Children 2013–2017 (MVC)** is aimed at enhancing the well-being of MVC by protecting their rights and preventing and/or reducing the incidence of risks and the impact of shocks. One of the four strategic areas of the MCV is improved access to and utilization of primary health care, education, and early childhood care and development services. It proposes the following interventions: a) facilitate children’s equitable access to ECD by establishing and managing ECD centers (e.g., crèches, daycare centers, and community centers); b) facilitate and support in-service training for childcare workers and social workers on MVC needs and services; c) support training on parenting skills for MVC caretakers on early childhood stimulation for psychosocial and cognitive development; d) facilitate early identification and intervention for children with disabilities; e) strengthen monitoring and follow-up of MVC services in crèches and daycare centers; f) encourage and support childcare institutions to establish and manage daycare centers with equitable access to ECD services; g) develop standard guidelines for provision of ECD services; and h) strengthen communities and institutions to provide equitable access and utilization of ECD services.

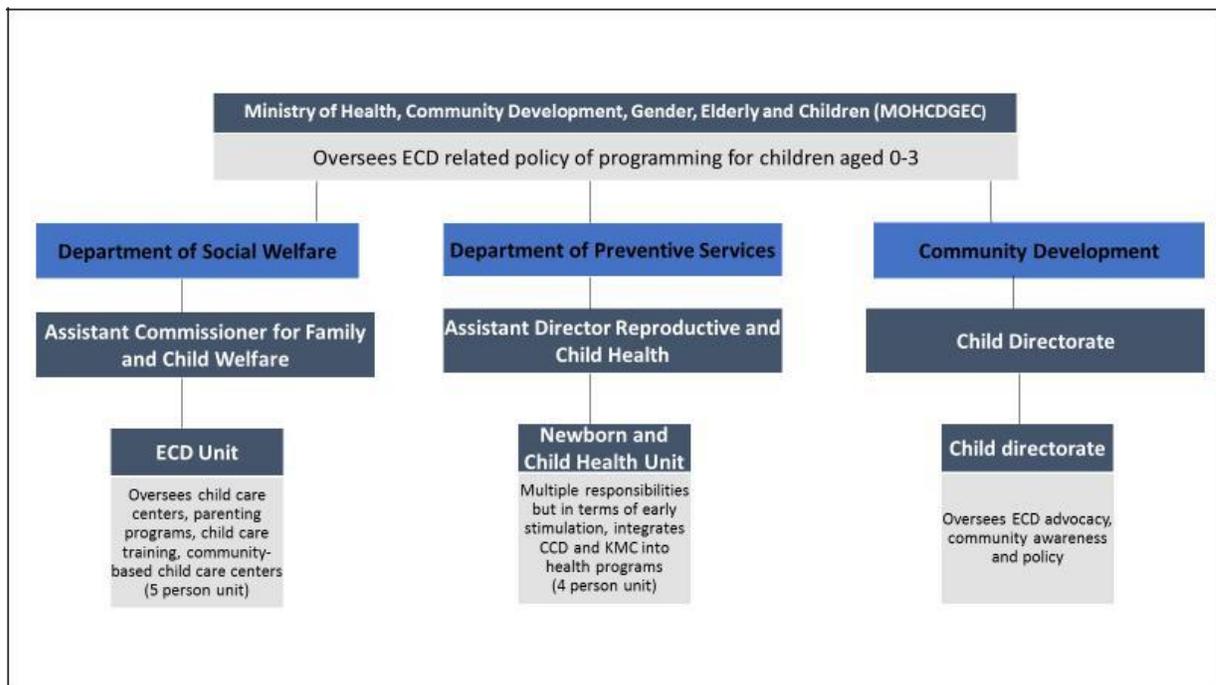
- **National Multi-Sectoral Nutrition Action Plan (NMNAP) 2016/17–2020/21** provides framework action plans for nutrition stakeholders and programs and incorporates improved coverage for ECD as part of the multi-sectoral nutrition sensitive interventions.

Tanzania does not currently have an approved multi-sectoral ECD policy. A holistic, cross-sectoral ECD policy was developed in 2010 after a multi-year consultative process but was never approved by Parliament.

ii. Institutional Arrangements

The national government is responsible for leading early stimulation and parenting policy and programming. The Ministry of Health, Community Development, Gender, Elderly and Children (MOHCDGEC) oversees ECD-related policy programming for children aged zero to three years. Within MOHCDGEC, the ECD unit in the Department of Social Welfare’s Family, Child Directorate in Community Development Newborn and Child Health Unit in the Department of Preventative Services all have responsibility for early stimulation. A full organogram is in figure 2 below.

Figure 2 Tanzanian Institutional Organization Structure for Early Stimulation, National Level



Currently there is no intersectoral coordination mechanism for ECD or early stimulation. Tanzania had previously established an institutional anchor to lead ECD policy and coordinate across sectors with the former Ministry of Community Development, Gender and Children (MCDGC) as the coordinating ministry. However, its effectiveness was constrained due to the absence of a budget allocation or dedicated ECD staff within the MCDGC. Moreover, the terms of references were not aligned with sectoral plans, which meant the anchor had limited leverage over other ministries. It is not clear that the creation of a new ECD institutional anchor would be useful, particularly in the absence of an ECD policy. It might be worthwhile to consider broadening the scope of other existing coordination mechanisms, such as the Multi-Sectoral

Steering Committee on Nutrition, to incorporate other elements of ECD like early stimulation. Additionally, given that the teams responsible for ECD and early stimulation are now within the same ministry, there is potential for a more integrated approach to occur organically with some minor changes to work programs and incentives. An intersectoral coordination mechanism may simply create an unnecessary layer of bureaucracy.

IV. Scope and Coverage of Early Stimulation Programs in Tanzania

During the World Bank *Investing in the Early Years* mission in November 2017, an informal mapping exercise on early stimulation interventions in Tanzania was undertaken. This exercise involved meeting relevant government officials and partners to discuss programs, and reviewing available materials, manuals, documentation, and evaluations. This section shares the findings of this exercise. Ten interventions were informally mapped, and are included in Table 1. The scope, coverage, challenges, and successes of these interventions are below.

Scope: There are currently several small early stimulation programs for young children in Tanzania, (summarized in table 1 below). Some initiatives, like the Malezi Project, were developed in collaboration with and approved by the government, whereas others were developed and implemented directly by civil society organizations. The range of interventions includes intensive one-on-one sessions, group sessions focused specifically on care practices, childcare messages integrated into other sectoral interventions (e.g., training health workers to also promote early stimulation during a health visit), and center-based programs that include the construction of ECD centers. Most programs include a combination of these approaches. Notably, many of the interventions use Care for Child Development (CCD) materials, training, and messaging. Box 1 provides more background on CCD, as well as a short review of international evidence and research on the effectiveness of CCD.

Table 1 Mapping Summary of Early Stimulation Intervention Programs in Tanzania

Programs*	Health or Edu	Gov. Collab	1-on-1 counselling	Group sessions	Facility based	Community based	Center based
ASTUTE	Health	Yes	Yes	Yes	Yes	Yes	No
ASRP	Health	Yes	Yes	Yes	Yes	Yes	Yes
Malezi Project	Health	Yes	Yes	Yes	Yes	Yes	No
THRIVE-II	Health	Minimal	Yes	Yes	No	Yes	Yes
Play-lab	Edu	Minimal	No	Yes	No	Yes	Yes
ZUMM	Edu	No	No	Yes	No	Yes	No
KMC	Health	Yes	Yes	No	Yes	No	No
Kizazi Kipya	Health	Yes	No	No	No	Yes	No
CCD Zanzibar	Health	Minimal	Yes	Yes	Yes	Yes	Yes
Tuwekeze Pamoja	Edu	Minimal	No	Yes	No	Yes	No

Note: Acronyms. ASTUTE: Addressing Stunting in Tanzania Early. ASRP: Accelerating Stunting Reduction Projection. THIRVE: Tanzanian Health & Resilience Initiative Valuing Education. ZUMM: Zungumza na Mtoto Mchanga. KMC: Kangaroo Mother Care.

While there are provisions for daycare centers and crèches in the Law of the Child Act, there seems to be only limited ongoing activity in this area. To ensure the quality of private sector childcare centers and crèches, the government will need to develop a formal registration system. This will require establishing a set of quality standards, including a standardized curriculum, that all childcare centers and crèches will be expected to meet to be able to register the center. A registration database and tracking/monitoring system can help support childcare centers and crèches in meeting and maintaining standards. The BRAC Play Lab program is promising, with 90 percent attendance rate and good

engagement by parents and community. There may be scope to adapt some of the materials and lessons from this program.

Box 1 Care for Child Development

The Care for Child Development training package was developed by UNICEF and WHO. The package provides messages and recommendations to guide health workers and other counselors to support caregivers to be more sensitive to the needs of children, and respond appropriately to meet these needs. It includes detailed modules on how to stimulate children through play and communication, advice on feeding, and examples on how to integrate the feeding and caring activities. For example, “the copying game” simulates conversation as the caregiver copies their child’s sounds or gestures. This results in changes in the interactions of caregivers and their children, and over time, the bonds between caregiver and child are also strengthened as both enjoy the new activities together.



A growing body of research supports the positive impact that the CCD program is having on children’s growth and development. A small, but carefully designed program in Jamaica found that children who had received the CCD intervention together with nutrition intervention showed more significant gains in growth as compared to children who received the nutrition intervention alone.¹⁹ A follow-up with beneficiary children (when they reached the age of 22) found significant long-term labor market returns. Earnings were 25 percent higher in the group that had received early stimulation through CCD (with or without nutrition), compared to the group that had received nutrition only or no intervention at all.²⁰ In Sindh, Pakistan, lady health workers (LWHs are equivalent to CHVs) were trained in early stimulation techniques. The cost of integration was US\$0.11 per month per child. As part of an RCT, almost 1,500 children were recruited and studied from birth. LWHs delivered the early stimulation and nutrition interventions through monthly interactive group parenting meetings and individual counseling sessions. The results indicated that children who received early stimulation interventions demonstrated the most gains in cognitive development.

¹⁹ Grantham-McGregor, Sally, Susan Walker, Susan Chang, and Christine Powell. 1997. “Effects of Early Childhood Supplementation with and without Stimulation on Later Development in Stunted Jamaican Children.” *The American Journal of Clinical Nutrition* 66 (2): 247–253.

²⁰ Gertler, Paul, James Heckman, Rodrigo Pinto, Arianna Zanolini, Christel Vermeersch, Susan Walker, Susan Chang, and Sally Grantham-McGregor. 2014. “Labor Market Returns to an Early Childhood Stimulation Intervention in Jamaica.” *Science* 344 (6187): 998–1001.

It appears that there have been challenges with bringing CCD to scale. In Niger, the government set up an unconditional cash transfer program, as well as behavioral change measures which used CCD to promote investments in children in 1,500 villages. The intervention led to small improvements in children's socio-emotional development. Nutrition and health practices improved, but anthropometric outcomes did not. Similarly, despite improvements in psychosocial stimulation and child protection practices, impacts on children's cognitive development were not observed.

Coverage: While there are a small number of early stimulation projects currently ongoing in Tanzania, there is no systemic, nation-wide program. Additionally, there are missed opportunities to integrate early stimulation and responsive caregiving into government health, nutrition, and community-based programs. For example, the *Siku* (days) 1,000 Nutrition Social and Behavior Change Communication (SBCC) Kit was created to improve the status of maternal and child nutrition by positively influencing the behaviors of parents and family members. However, messages on early stimulation for young children, responsive feeding, and the importance of the early years were not included, thus children in Tanzania do not receive an integrated package of ECD interventions. Similarly, the ECSA training material's strong emphasis on counseling and inclusion of responsive breastfeeding messaging has resulted in some overlap with the CCD approach. However, messages connecting early stimulation and responsive feeding for children who have finished breastfeeding were not included in the ECSA material. One of the key policy recommendations in the 2012 World Bank SABER systems diagnostic report on ECD in Tanzania was that the government should consider purposeful incorporation of parenting and caregiver education on early stimulation into existing outreach.²¹

V. Lessons Learned

This section discusses lessons learned from the implementation of early stimulation projects to support the design considerations of a larger, more systematic intervention in Tanzania. Apart from the ZUMM project, most early stimulation projects in Tanzania are ongoing and have not yet produced rigorous evaluations. Nevertheless, lessons have been derived from mid-term reports and discussions with key stakeholders and are presented below. This is presented alongside lessons from global research on early stimulation.

Lesson 1: Integration of early stimulation into existing delivery platforms is more cost-effective and sustainable but requires careful planning and implementation.

Existing health, nutrition, and social protection platforms can provide an effective entry point for early stimulation interventions.²² In low-income settings, health workers are often the first and only service-providers for children in their first 1,000 days. Health care workers (HCWs) and CHVs have been identified as potential entry points for early stimulation interventions in Tanzania. A report by Children in Crossfire and ZUMM found that 73 percent of mothers identified health clinic staff as one of their main sources of childcare information. Similarly, the World Bank pilot on stimulation practices found CHVs to be a suitable entry point for early stimulation interventions. Most of the early stimulation programs implemented in Tanzania used existing health platforms to reach beneficiaries.

²¹ World Bank. 2012. SABER-ECD: Tanzania. <https://openknowledge.worldbank.org/handle/10986/17641>.

²² Engle, P.E., Fernald, C.H., Alderman, H., Behrman, J., O'Gara, C., Yousafzai, A. et al., 2011. Strategies for reducing inequalities and improving developmental outcomes for young children in low-income and middle-income countries. *Lancet*, 378, 1339–53.

Integrated nutrition and early stimulation interventions are additive²³ and more cost-effective.²⁴ Additionally, there is relatively recent evidence suggesting that early stimulation interventions may enhance both service delivery and uptake of nutrition interventions. In Bangladesh, a rigorous impact evaluation revealed that the add-on early stimulation program may have strengthened the uptake of the National Nutrition Program, rather than competing with the program for parents' attention.²⁵ Similarly in Mozambique, CHVs who integrated early stimulation into their program actually conducted 18 percent more household visits, 34 percent more consultations, and 27 percent more community talks per month, and were more likely to praise the caregiver and explain the importance of discussed topics than those in the control group.²⁶

Nevertheless, it's important that integration is achieved without overloading HCWs. Shortage of HCWs and other medical responsibilities may stop them from delivering early stimulation counseling routinely. Many HCWs included in the Tanzanian Malezi Project considered early stimulation messages as an additional burden to their other responsibilities. The project explored alternative options, including using waiting times in clinics to share early stimulation messaging, creating play corners in clinics and only providing one-on-one counseling to children considered at-risk.

For integrated approaches to be scaled successfully, support from national and subnational levels of government is necessary. Early stimulation approaches and messaging should be integrated into existing planning, guidelines, training, service delivery, and supervision.²⁷ Strong inter-sectoral linkages with technical ministries at the national, regional, and local level are also critical.²⁸ Leadership at the national and subnational level for the integration of early stimulation is particularly important in Tanzania where, there is no ECD policy or sectoral plan. For example, in the ASTUTE-supported program in Kagera, a civil society organization, with support from CHVs, worked on establishing community CCD spaces for children less than two years of age in 16 wards. However, since 2014, no new CCD spaces have been established, due mainly to the lack of ECD policy to engage partners and leverage necessary resources locally.

Lesson 2: Early stimulation interventions need to be reasonably intensive to be effective.

A study on an early stimulation program in Jamaica formally evaluated the impact of frequency of visits to share early stimulation messages. It concluded that monthly visits did not benefit development: a minimum of fortnightly visits was necessary.²⁹ A review of nine studies on early stimulation interventions showed the size of impact from fortnightly visits was less than half as compared to weekly visits. That being said, flexibility in context is important. UNICEF faced challenges in Tanzania with maintaining the attendance of pregnant women and caregivers of children under two years in its

²³ Alderman, H., and L. Fernald. 2017. "The Nexus between Nutrition and Early Childhood Development." *Annual Review of Nutrition* 37:7.1–7.30.

²⁴ Saima, G., A. Yousafzai, R. Armstrong, and Z. A. Bhutta. 2014. "Cost Effectiveness of Responsive Stimulation and Nutrition Interventions on Early Child Development Outcomes in Pakistan." *Annals of the New York Academy of Sciences* 1308: 149–61.

²⁵ The World Bank, 2017. "Bangladesh Building the Human Capital of Tomorrow An Impact Evaluation of the Early Childhood Stimulation Program" <http://documents.worldbank.org/curated/en/264971490208356065/Building-the-Human-Capital-of-Tomorrow-An-Impact-Evaluation-of-the-Early-Childhood-Stimulation-Program>.

²⁶ PATH. "Feasibility and value of integrating nutrition and development into the national community health worker program in Mozambique" PATH: Maternal, newborn, and child health and nutrition.

²⁷ PATH. "PATH's Approach to ECD: Utilizing the health sector as the entry point for ECD programming" PATH: Maternal, newborn, and child health and nutrition.

²⁸ Barry, O; Maidoka, A & Premand, P. 2017. "Promoting positive parenting practices in Niger through a cash transfer programme" Bernard van Leer Foundation (https://bernardvanleer.org/app/uploads/2017/06/ECM17_12_Niger_Barry.pdf).

²⁹ Powell, C., and S. Grantham-McGregor. 1989. "Home Visiting of Varying Frequency and Child Development." *Pediatrics* 84: 157–64.

monthly group counseling sessions during the rainy season, as most of the target beneficiaries are engaged in farming. The CHVs compensated for missed sessions by conducting more sessions during the low farming season.

Most of the interventions included in the mapping exercise in Tanzania used multiple avenues for the delivery of early stimulation messages to increase the intensity of the intervention. For example, the Malezi Project in Tanzania used HCWs to share early stimulation messages during one-on-one counseling and in waiting areas, and used CHWs to share messages during home visits. Additionally, both the Malezi and ZUMM projects recommended the use of DVDs, videos, radio, etc.

In terms of program duration, overall it appears that benefits first begin to appear at the six-month point and continue to accrue the longer the intervention continues.³⁰

Lesson 3: Use simple messaging that incorporates local knowledge.

CCD/early stimulation messaging should focus on eight to 10 key messages that are locally relevant. ECD curriculums should be developed to include local knowledge, practices, and resources (e.g., stories, songs, games, and materials for play).³¹ The World Bank pilot study on stimulation practices found that parents already sing songs and make toys; both activities can serve as a foundation for well-designed intervention. International evidence suggests that complex or overly extensive messaging can actually result in information overload. This can overwhelm the caregiver and discourage changes in caregiver practices.³²

Lesson 4: Group counseling is an effective means to share early stimulation knowledge and practice with caregivers.

Children in Crossfire and ZUMM ran a research study in Tanzania to test the impact of group training, which encouraged parents to talk to their babies. The study followed 598 babies and found that the median words per hour spoken to babies (between the ages of eight and 20 months) by parents or caregivers increased by 222 percent in the intervention group (from 53 to 170, IQR=51/228), compared to 29 percent in the control group (from 38 to 49, IQR=59/100). UNICEF found that SBCC, delivered through a group counselling model in Tanzania and facilitated by trained CHVs, was just as effective as home visits. This approach increased interactions among trusted people from the same communities and allowed greater and more frequent reach than house-to-house visits by CHVs.

Lesson 5: If workers are delivering early stimulation, effective supportive supervision is key.

Research indicates supportive supervision is an essential component for the successful delivery of ECD interventions. Supervision should include frequent opportunities to observe the worker deliver the intervention and provide feedback.³³ Bi-monthly on-the-job coaching of workers delivering CCD was

³⁰ Walker, S. 2011. "Promoting Equity through Early Child Development Interventions for Children from Birth through Three Years of Age" in "No Small Matter: The impact of poverty, shocks and human capital investments in early childhood development" Harold Alderman (ed), The World Bank, Washington, DC.

³¹ Yousafzai, A & Rasheed, M.A. "The Pakistan Early Child Development Scale Up Trial: A Process Evaluation: Sharing Lessons for Scaling Up Early Child Development Interventions in Community Health Programs" (unpublished paper).

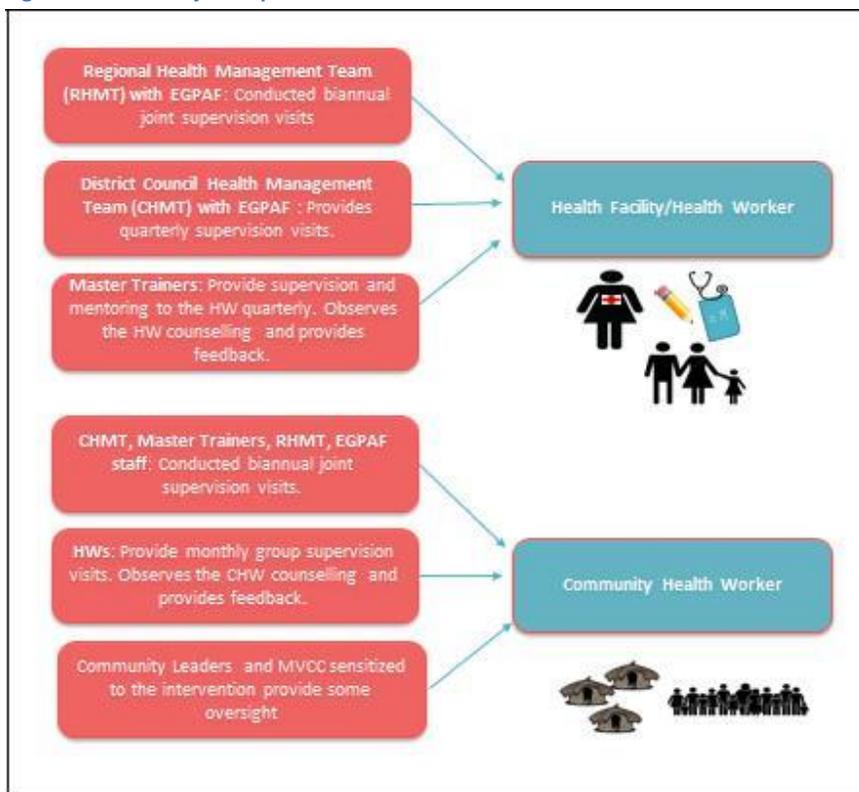
³² Alderman, H., and L. Fernald. 2017. "The Nexus between Nutrition and Early Childhood Development." Annual Review of Nutrition 37:7.1–7.30.

³³ Engle, P.E., Fernald, C.H., Alderman, H., Behrman, J., O’Gara, C., Yousafzai, A. et al., 2011. Strategies for reducing inequalities and improving developmental outcomes for young children in low-income and middle-income countries. *Lancet*, 378, 1339–53.

critical to the success of the Pakistan intervention.³⁴ Each additional mentoring visit to clinicians in Mozambique increased their ECD screening and counseling skills by eight percent.³⁵ Conversely, the absence of a quality assurance framework, clear feedback loops, and supervision of the fidelity of implementation were identified as factors that impeded the success of the Niger project.³⁶

Most of the programs included in the Tanzanian mapping exercise had some form of supportive supervision, which included both bi-annual and quarterly visits by the RHMT/CHMT, and more frequent mentoring from supervisors and master trainers. For example, the supervision structure of the Malezi Project is illustrated in figure 3. UNICEF noted that for the ASTUTE and ASRP programs, they managed to offset compromising the quality of CHW services during program scale-up by increasing programmatic monitoring visits to implementing partners, and emphasizing supportive supervision visits to supervisors and CHVs.

Figure 3 Malezi Project Supervision Structure



Lesson 6: Involvement of community leaders and members is crucial for community-level interventions

Quite a few of the projects actively involved community leaders to ensure smooth implementation, sustainability of community-based interventions, and ultimate ownership of the program by the

³⁴ Yousafzai, A & Rasheed, M.A., 2012. "The Pakistan Early Child Development Scale Up Trial: A Process Evaluation: Sharing Lessons for Scaling Up Early Child Development Interventions in Community Health Programs" (unpublished paper).

³⁵ PATH. "Scaling up Early Childhood Development: Clinical mentoring in Mozambique" PATH: Maternal, newborn, and child health and nutrition.

³⁶ Barry, O; Maïdoka, A & Premand, P. 2017. Barry, O., A. Maïdoka, and P. Premand. 2017. "Promoting Positive Parenting Practices in Niger Through a Cash Transfer Programme." Bernard van Leer Foundation. https://bernardvanleer.org/app/uploads/2017/06/ECM17_12_Niger_Barry.pdf.

community. UNICEF also noted the importance of recruiting and building capacity of existing CHVs within the villages, as they tend to understand the specific context of the target areas. This makes it easier for them to promote positive behaviors, and remind, follow-up, and support beneficiaries in adopting the recommended behaviors for better developmental outcomes.

VI. Recommendations

- **Explore an existing health delivery platform to launch an early stimulation intervention.** Both Tanzanian and international evidence indicate that an existing health platform could be used as an entry point for an early stimulation intervention. This option would be more cost-effective and sustainable in the long run. If this approach is pursued, it is important to ensure that early stimulation approaches and messaging are integrated into existing planning, guidelines, training, service delivery, and supervision rather than included as an “add on.” Additionally, creative solutions to ensuring HCWs and CHVs are not overloaded should be considered.
- **Consider initially implementing the early stimulation intervention in a phased manner starting with a pilot and then scaling-up.** Currently, in Tanzania, early stimulation programs have only been implemented on a very small scale and have not been evaluated. It would therefore be advisable to initially implement on a small scale and conduct rapid evaluations to assess whether elements of the intervention design are working well. Once it is established that the intervention is effective, the government can bring it to scale.
- **Engage high-level political leadership in supporting early stimulation.** To be successfully integrated into existing health/nutrition platforms, an early stimulation intervention will require high-level support. Leadership could be engaged through short awareness raising sessions led by local and international experts, study tours, and conferences.
- **Support further integration of government departments on the national level.** Currently, government units engaged in early stimulation are all housed within MOHCDGEC. These units could be further incentivized and supported in working together through revisions of sectoral plans, budget allocations, and the assignment of more staff dedicated to working on early stimulation.
- **Provide early stimulation messaging at least twice a month over a period of six to 12 months.** Evidence suggests that early stimulation interventions should be relatively intensive. Multiple avenues for sharing the messages can be pursued including one-on-one counseling, home visits, group sessions, waiting rooms, radio etc.
- **Consider taking the findings of the World Bank pilot study into account when designing an intervention.** While the study was limited to Katavi and Zanzibar, the findings could be helpful to consider when designing the early stimulation intervention. For example, the recommendation to encourage parents to tell stories could be included in the messaging, low-cost children books could be distributed, and parents could be taught how to make toys.