

HEART

HEALTH & EDUCATION ADVICE & RESOURCE TEAM

Helpdesk report: Evidence on ECD approaches in Malawi

Date: 20 October 2015

QUERY:

Complete a synthesis report that focuses on the following:

- Existing research and evidence on ECD models (state and non-state) in Malawi and the impact on child development and learning
- Evidence on ECD approaches in Malawi and the region that integrate education, nutrition and/or WaSH
- Evidence on community based models of ECD in Malawi and in the region, including on use of volunteer caregivers, curricula and assessment.

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1. Introduction

This rapid review looks at the evidence on Early Childhood Development (ECD) models (including integrated approaches) in Malawi and in the Sub-Saharan African region, looking at the impact on child development and learning. Most of the evidence from Malawi focuses on Community Based Childcare Centres (CBCC) which are the main centre based model for ECD in Malawi. These centres are designed as a central point for the delivery of preschool education, care, nutrition and health services, particularly for vulnerable children. Evidence from elsewhere is also considered.

2. Overview of Key Findings

- There is a strong body of international evidence on the high payoffs of investment in ECD in terms of young children's survival, health, learning and socio-emotional development.
- International evidence suggests that approaches that integrate education, health, sanitation, nutrition and protection are particularly effective.
- Malawi's Community Based Childcare Centre (CBCC) model has enabled a rapid expansion of integrated ECD services at low cost to the government, drawing largely on community resources, volunteers, national and international civil society organisations and intergovernmental organisations.
- The capacity and quality of CBCCs remain very low. Only a minority of children have access to centres and most CBCCs are under resourced, with untrained staff and lack of play and teaching equipment.
- Evidence of the impact of ECD models in Malawi is limited. Research into the impact of supporting CBCCs is ongoing. Midline results indicate that training of caregivers has led to improved language skills of children, particularly for the most disadvantaged children. Other research underway is exploring how to improve the quality of integrated service provision through CBCCs for children with disabilities.
- CBCCs provide an opportunity for integrating nutrition and education interventions for preschool children. Centre based feeding programmes can be more efficient than home based programmes. However, provision of food was the most frequently reported challenge by CBCCs.
- CBCCs reliance on volunteer caregivers provides a low cost model of ECD. However, it contributes to a high turnover of staff. Further, volunteers often lack the necessary skills required to support quality service provision.

3. Background

Global evidence on effective approaches to Early Childhood Development

There is extensive evidence that investments in the nutritional, cognitive, and socio-emotional development of young children have high payoffs (Alderman, 2011). Approaches to Early Childhood Development (ECD) increasingly recognise that young children's survival, health, care and learning are impacted upon by multiple, interconnected factors from before the infant is born through to their early school years. The *Lancet* series on Early Childhood Development estimated that "200 million children under 5 years fail to reach their potential in cognitive development because of poverty, poor health and nutrition, and deficient care." (Grantham-McGregor et al., 2007, p. 60). The factors and processes contributing to this loss of developmental potential and the evidence for effective prevention and intervention are reviewed in the *Lancet* series (Grantham-McGregor et al, 2007; Engle et al., 2007; 2011; Walker et al., 2011).

There is strong evidence on the impact of factors from multiple sectors on early childhood development: education, health, nutrition, water, sanitation and hygiene (WASH) and social

protection. Key issues impacting on children's development from 0 to 8 years include malnutrition and stunting, disease and vaccination, violence and child protection, and preschool education and school readiness (Woodhead, 2014).

Reviewing the evidence, UNICEF Executive Director Anthony Lake and World Health Organization (WHO) Director-General Dr Margaret Chan state that:

to be most effective, interventions must be intersectoral, going beyond education to encompass health, nutrition, and protection. The healthy development of a child's brain depends on multiple positive experiences. Nutrition feeds the brain; stimulation sparks the mind; love and protection buffer the negative impact of stress and adversity. And distinct interventions are mutually supportive, achieving the strongest results when delivered together. (Lake and Chan, 2014, p.1)

The provision of integrated ECD interventions and programmes is a developing field. Some examples include:

- Kangaroo Mother Care (KMC) in which mothers give lengthy skin-to-skin contact to their low birthweight infants: maintaining infants' body temperature; providing stimulation and providing nutrition through breastfeeding. A Cochrane review of randomised controlled trials identified reduced rates of mortality; infections and illness and increased weight; height and maternal-infant attachment (Conde-Agudelo and Diaz-Rossello, 2014).
- A randomised controlled trial of an intervention in Jamaica which provided two years of psychosocial stimulation and nutritional supplementation to children whose growth was stunted. At long term follow up (aged 17-18 years and 20 years post-intervention), a positive impact was reported on participants cognitive and psychosocial functioning; their educational scores and their earnings (Walker et al., 2006; Gertler et al., 2014).
- WASH, health and nutrition interventions in schools. For example, WASH interventions significantly reducing diarrhoea and other illness- related absenteeism in Egypt (Talaat et al, 2011), China (Bowen et al, 2007) and Columbia (Lopez-Quintero et al, 2009), and school feeding programmes having a positive impact on weight (Kristjansson et al, 2007), school attendance and academic achievement (Alderman and Bundy, 2011).
- Large scale national integrated programmes of Early Childhood Development which provide a range of education; health and nutrition services include: *Oportunidades*, Mexico (Fernald et al, 2009), "Educa a Tu Hijo" (Educate Your Child) in Chile (Tinajero, 2011), "Cuna Mas" in Peru (Cuna Mas, 2014), Ilifa Labantwana in South Africa (Ilifa Labantwana, 2013), and Integrated Child Development Services in India (Programme Evaluation Organisation, 2011)

Early Childhood Development in Malawi

Policy

Malawi takes a multisectoral approach to ECD. The Department of Child Development Affairs of the Ministry of Gender, Children, Disability and Social Welfare (MoGCDSW) is responsible for coordinating the work of other ministries and oversees the implementation of ECD. Integrated Early Childhood Development (I-ECD) is a unit within the department of Child Development Affairs that works to coordinate efforts to implement National ECD Policy (2006) and the National ECD Strategic Plan (2009) for accessible and quality ECD services for all young children, including orphans and other children living in difficult circumstances in Malawi (MoGCDSW, 2014).

The World Bank's SABER report on ECD for Malawi rates the policy environment, implementation and monitoring and assurance of ECD policy as "emergent". The report notes

that financing for ECD service delivery is budgeted, but expenditures are not tracked. It states that coordination mechanisms between ministries are good, but data collection for monitoring is weak (SABER 2015). Only a small fraction of the funds required for implementing the national strategic plan are budgeted for (Neuman et al., 2014).

The government supports communities to open and run their own centres and is responsible for providing training of caregivers and periodic visits by health workers, sanitation and agriculture specialists (Drouin and Heymann, 2010).

Practice

In response to the HIV/AIDS epidemic and the subsequent increase in orphans, rural pre-school/ ECD centres, known as community based child care (CBCC) centres, were set up to provide psychosocial support and care, emotional and mental development for children affected and infected by HIV/AIDS (MoGCDSW, 2014). CBCCs have since expanded their mandate to provide early development and learning opportunities as well as part-time childcare for working parents. By 2010 there were around 6,900 public ECD centres, most of which were CBCCs. There were also over 2000 private nurseries that serve mainly urban communities (Neuman et al., 2014).

Despite this growth in centres, only a minority of children (32%) access centre-based ECD prior to primary schooling. In urban centres the main barrier to access is high fees charged by pre-schools. In rural areas the main barrier to access is lack of local functioning services (Civil Society Education Coalition, 2011).

The government is highly, if not overly, dependent on the non-governmental sector for provision of ECD programmes (Lynch & Wazakili, 2014). Most CBCCs are voluntary based and largely run on good will and/or external support by CBOs, NGOs and international organisations. Most staff are un-qualified. While training is available (for example, the Association of Preschool Playgroups in Malawi (APPM) offers tailor-made training for ECD educators), few volunteer carers have accessed such courses (Civil Society Education Coalition, 2011). A baseline study of 199 caregivers found that fewer than 40% were trained and around a third did not have a primary school leaving certificate (PSLC) (World Bank 2015). Training and retention of trained caregivers remain major challenges for many CBOs and NGOs supporting CBCCs (Drouin and Heymann, 2010).

CBCCs provide pre-primary education and other support for children aged 3 to 5 years. Communities provide structures, support for caregivers, food, utensils, labour and play materials for the children in CBCCs (Munthali et al., 2014). A baseline study for *Protecting Early Childhood Development in Malawi* found that only 53% of CBCC centres listed in the Ministry's mapping data were operational at the time of the verification visits. The most common reason given for closure was lack of food. The study found that providing food stood out as the most critical challenge facing CBCCs (World Bank 2015, Neuman et al., 2014).

Although access to ECD services for children with disabilities has been prioritised in the strategic plan, few caregivers have received any training on working with children with disabilities and centres lack teaching materials for children with disabilities (Bhana et al., 2014). A research project is currently underway to develop a training package for parents and community based education and social welfare professionals to improve work on play and other forms of developmental stimulation, as well as early communication with children with visual impairment in community settings in Southern Malawi (Lynch, Jolley & Gladstone, 2013). Evidence from this project emphasises the importance of collaboration between government and non-government agencies and of integrating sectors, including health, education, social and economic development for developing supportive environments for positive childhood development, particularly for the most vulnerable.

4. The impact of different ECD models in Malawi on child development and learning

When it comes to ECD in Malawi, evidence indicates that national policies tend to follow the international agenda, which favours holistic approaches. However, parents in Malawi tend to view pre-schooling in a narrower way, focusing on the cognitive development and learning outcomes necessary to ensure that their children are prepared for primary school study (Kholowa & Rose, 2007). This demonstrates that cognitive development and learning are priorities for Malawian parents, and further research is needed to determine the best pathways to achieve these priorities.

We found no completed studies on the impact of centre-based ECD models in Malawi on child development and learning, and only one ongoing rigorous evaluation. *Protecting Early Childhood Development in Malawi* is a two year project supported by the World Bank, the Rapid Social Response Multi-donor Trust Fund and Government of Malawi. The evaluation element included a baseline, midline and endline evaluation of different combinations of four interventions: a package of play and learning materials, caregiver training, caregiver incentives and parenting education. All groups, including a control group, received the package of play and learning materials. For the midline results, the three treatment groups were pooled. All of these groups had received the caregiver training intervention. The findings indicated modest effects (0.13 SD) on language skills, particularly for groups receiving caregiver incentives and parental training. The results were largest for children in the bottom quartile of the height-for-age distribution, implying a catch-up in language skills for the most disadvantaged children. There were no effects found on fine motor and perception skills (Fernald et al., 2015). The endline results were not available at the time of writing.

A study on home based support to ECD used a randomised control trial to investigate the impact of providing mothers of young infants with information on child nutrition (Fitzsimons et al. 2014). The study was linked to an established home visiting programme in central Malawi called MaiMwana ('Mother and Child'), delivered at relatively low cost by local 'peer counsellors' with personal experience of infant nutrition. The study demonstrated that a sustained intervention during the earliest years improved mothers' knowledge, which translated into improved household nutrition and delivered improved child growth. Greater awareness of the importance of nutrition appears to have a systemic impact on household functioning, with parent employment rates increasing to help pay for improved food consumption. Such research has important implications for the design of effective ECD approaches: parental education on nutrition supports improved child nutrition, which in turn leads to healthy cognitive development.

According to an external evaluation of the Roger Federer Foundation and Action Aid Malawi's 10 year Early Childhood Education initiative (launched in 2011), 14,000 children across Malawi have been benefitting from a higher quality of early learning. After 2 years of preschool education, the educational development of the children participating in the initiative was measured and many of them had achieved relatively high educational development scores (Roger Federer Foundation, 2015). While this is a promising intervention, at present, there is limited scholarly/scientific research on the effectiveness of these types of approaches.

The problem of limited scholarly/scientific research is compounded by a lack of relevant and culturally appropriate assessment tools for assessing cognitive development and learning, particularly among the most disadvantaged children, including children with disabilities. However, researchers have developed a tool in the Malawian context known as the Malawi Developmental Assessment Tool (MDAT), shows good reliability, validity, and sensitivity for identification of children with neurodisabilities (Gladstone, Lancaster, Umar, Nyirenda, Kayira, et al., 2010). It will be important in analysing the effectiveness of ECD programmes to consider locally-relevant tools such as the MDAT to avoid misleading findings as could arise from using tools developed in so-called developed world contexts (ibid.). Bhana et al. (2014)

also highlight the importance of culturally-relevant participatory methodologies for effective ECD programming and evaluation.

Evidence from the wider region includes an impact study in Mozambique of a preschool programme provided by Save the Children (Martinez et al., 2012). The programme provided a preschool programme for children aged 3-5 in randomly selected treatment communities. The overall cost was \$2.47 per child per month. This included a \$10 monthly stipend for teachers.

When compared to children in control communities, children in treatment communities:

- were much more likely to attend preschool (55% enrolment rate compared to 12%);
- were more likely to enrol in primary school, and to enrol at the correct age (primary school enrolment rates were 24% higher in treatment areas);
- once enrolled at primary school, spent an average of 7.2 hours extra a week on homework and other school related activities; and
- showed gains on overall school readiness, particularly in cognitive development.

There were measurable positive effects on other household members. This may have been because the pre-schooling freed up time for caregivers. Older siblings were more likely to attend school and caregivers were more likely to have worked in the last month. Caregivers were also less likely to see physical punishment as appropriate.

Malmberg, Mwaura, and Sylva (2011) aimed to investigate a child-centred intervention (the Madrasa Resource Centre) on preschool children's cognitive development in East Africa (Kenya, Zanzibar, and Uganda). This cross-sequential study involved 153 non-intervention and 168 intervention participants over three time-points during preschool (mean ages 4.3, 6.0, and 7.1). A multilevel model for analysis revealed a beneficial curvilinear effect of the intervention on children's cognitive development. Further, a moderation analysis suggested that the effect of observed preschool quality was stronger in the intervention.

5. Integrated approaches to ECD in Malawi and the region

Integration of nutrition with education

Phuka et al. (2014) note that Malawi has comprehensive policies and well-outlined coordination structures for nutrition and ECD that advocate for integrated approaches. However, whilst coordination is strong at the central level, at the community level it is limited due to heavy workloads, logistical and transportation challenges, and a lack of synchronized work schedules for front line staff. The report recommends improved task allocation and synchronization of work schedules across all relevant sectors.

In their discussion of opportunities for integrating ECD and nutrition programming, DiGirolamo et al. (2014) identify that a low-cost strategy can be to enhance existing services in a target community to offer children access to child development, health and nutrition services. One example cited is an intervention being conducted in Malawi by Save the Children, the World Bank and the Government of Malawi, where 200 existing community-based childcare centres are being enhanced to provide additional health and nutrition interventions. Community health and nutrition volunteers have been trained to provide health and nutrition messages and to ensure children receive nutritious meals. Impact data on health, nutrition and cognitive outcomes are not yet available.

A systematic review of studies of supplementary feeding programmes (Kristjansson et al., 2015) found that these tended to be substantially more efficient, as measured by the percentage of the food supplement that actually reached the target children, when they were implemented through centres (85% efficient) rather than in homes (36% efficient).

Supplementary food was more effective for children under 2 years old. The evidence of effects of supplementary feeding on cognitive development was sparse and mixed.

Integration of WaSH and early childhood education

CSEC (2011) reports that infrastructure (particularly with regards to WaSH) is substandard in most community-based ECD centres in Malawi, leading to health complications among children. Whilst many programmes have now attempted to include (and improve) provision of WaSH facilities in their support to ECD centres (see for example, Roger Federer Foundation, 2015) we did not find any evaluations that explicitly examined the impact on the health and education of young children attending such centres in Malawi or the region. Ongoing research in nearby Zimbabwe does emphasise the importance of understanding the links between nutrition and WaSH and young children's overall wellbeing, which has obvious consequences for ensuring quality at ECD centres (Humphrey, 2012; Mbuya, 2013).

The strength of integrated approaches

Further, research by Pronyk et al. (2012) on an integrated multisector approach to rural development in sub-Saharan Africa known as the Millennium Villages Project (which includes data from Malawi), indicates that simultaneously addressing multiple Millennium Development Goals accelerates gains in child survival. This was accomplished by making simultaneous investments in agriculture, the environment, business development, education, infrastructure (including water and sanitation) and health in partnership with communities and local governments starting in 2006 (annual projected cost of USD 120 per person). In fact, mortality rates in children younger than 5 years decreased by just over a fifth in Millennium Village sites relative to baseline.

6. Community-based ECD in Malawi and the region

Community-Based Childcare Centres (CBCC)

The rate and scale of the expansion of CBCCs during the 1990s and early 2000s have been impressive and thousands of communities have been mobilised to construct and run child care centres, largely from their own resources. These centres provide pre-primary learning, nutrition and special care for orphans and vulnerable children. An assessment of the conditions in the centres (Munthali et al., 2014) concluded that although most CBCC premises and structures fell short of the standards laid down by the government, the activities and services provided were mostly aligned to national policy. Children were provided with nutritious foods and participated in play that stimulated their cognitive and mental development. However, much greater investment was needed.

CBCCs are often very fragile, with frequent closures and limited resources (Neuman et al., 2014; World Bank, 2015). A study published by UNICEF (Fisher et al., 2009) looked at why some CBCCs were more successful than others, despite operating under the same constraints. It looked at 6 "positive deviants", and identified common features of these CBCCs as follows:

- affiliated to a CBO or NGO;
- strong leadership from a committed individual;
- committed volunteer staff (mainly women), often working for little or no reward;
- most staff had received 12 days training by the District Social Welfare Office;
- relied on diverse means to mobilise funding and support;
- benefitted from collaboration and coordination at community and district levels;
- had permanent premises of brick with concrete floors;
- had reliable, accessible sources of safe water; and
- provided at least one meal a day.

Challenges faced by all CBCCs included:

- low attendance during rainy seasons, when there was a high demand for labour and rivers were dangerous to cross;
- poor WASH habits, even when facilities were available;
- high turnover of caregivers due to lack of benefits; and
- poor links with primary schools.

A 13 day training course for caregivers is available but fewer than half of caregivers are trained (SABER, 2015). In recognition of the lack of government structures to provide systematic training of caregivers, the Open Society Initiative for Southern Africa has supported the Ministry of Gender, Children, Disability and Social Welfare to implement a capacity enhancement project involving a cascade of trainings for service providers.¹ The government has developed a National Training Plan to be cascaded from national to regional to local levels. Under the project, 28 national level officials, 81 regional trainers and 674 caregivers were trained. The primary teacher diploma does not include any suitable focus for infant classes.²

Community health workers and health surveillance assistants

According to Phuka et al. (2014), the Ministry of Gender, Children, and Social Welfare and the Ministry of Health employ extension workers, known as community health workers (CHWs), who are frontline primary contacts to children and their families and communities and implement specific child development and/or nutrition activities, and health surveillance assistants (HSAs), who participate in implementation and coordination activities associated with the [WHO's Care for Child Development package](#) in Malawi, and other national policies. While there is strong collaboration at the higher levels of policy and national coordination, this does not extend to the community level, and both CHWs and HSAs are not given much guidance on how to implement integrated ECD approaches that have proven successful at the global level. Further, in some instances, CHWs and HSAs feel that their salaries are too low for the jobs that they are expected to do, thus motivation can be a problem.

Yarrow, Hamilton and Watkins (2012) provide a further illustration of the problems of translation from the national level to the local, community level. According to their research, ECD frontline workers lack the capacity to identify and respond to child protection issues, because they have a limited understanding of the various kinds of harm that can befall children, and they do not have the skills necessary to assess needs and risks. Further, there are no tangible connections between community workers and police and social welfare agencies, and no ECD care institutions in Malawi have any individual plans or case management systems for child protection. A number of these frontline workers also did not understand their role in child protection as set out under the 2010 Act.

Motivation and retention of volunteer caregivers

The high turnover of volunteer caregivers makes the development of a trained cadre a major challenge. Messner and Levy (2012) found that some caregivers trained with NGO support were hired away by private nursery schools. To address the issue of volunteer turnover, the NGO and partners employed a number of approaches. They encouraged villagers to select caregivers who had a higher likelihood of staying with the programme (e.g., they found young women were less likely to stay with the program, as compared to older caregivers), encouraged caregivers to rotate and develop a shared schedule, and encouraged communities to assist in volunteer caregivers' gardens. However, the turnover persisted.

¹ Tina Hyder, Open Society Foundation, personal communication 15/10/2015

² Linda Biersteker, formerly Early Learning Resource Unit, personal communication 8/10/2015

The midterm findings of PECD (Fernald et al., 2015) found that caregivers were significantly more likely to have primary school qualifications in treatment centers (those receiving training) compared with those in control CBCCs (75% vs. 63%). This was partly because educated caregivers were less likely to leave treated schools, and also because new caregivers at treatment schools were significantly more educated. The effect was strongest for the treatment group with caregiver incentives.

A study of the factors motivating community caregivers to volunteer looked at Mary's Meals school feeding programme (Uny, 2008). This programme provides meals for over 100,000 children in nurseries and schools and relies on the voluntary labour of around 3,000 community members to prepare and serve the meals. Volunteers received 50 kg of maize per month, some training, a cloth wrap and the opportunity to take their children to the nursery. Most of the volunteers interviewed reported intrinsic motivating factors (deep concern for orphans and vulnerable children, a moral obligation to help, and a declared love of the work undertaken) rather than the material compensation received as reasons for their continuation in the work.

Child-to-child approaches

UNICEF's *Getting Ready for School* programme aimed to facilitate the transition of young children into primary school through the use of older school children (Young Facilitators) as providers of early childhood education support to younger children in their communities. A pilot programme was implemented in six countries during the 2008–2009 school year: Bangladesh, China, the Democratic Republic of Congo (DRC), Ethiopia, Tajikistan, and Yemen. The pilot was evaluated by American Institutes for Research (2013). The cost per child for one programme year was modest, ranging from USD \$57 in Ethiopia to USD \$164 in Yemen. There were significant programme impacts on multiple areas of children's school readiness. There was also evidence that Young Facilitators benefited from their participation in the programme, including recognition of their efforts by the community and improvement in school attendance and academic performance in some countries. In the Democratic Republic of Congo there were significant positive programme impacts on several key cognitive outcomes, including ability to complete applied problems in mathematics, overall beginning literacy skills, ability to identify letters, beginning writing skills, and ability to identify colours. The size of these positive impacts was all substantial, with effect sizes ranging between 0.46 and 0.59.

Faith-based initiatives

A study in Kenya, Uganda and Tanzania/Zanzibar compared the effects of Madrasa and non-Madrasa preschool on cognitive development (Mwaura et al, 2008). This quasi experimental evaluation found that children with both types of preschool experience performed better than the home (comparison) group; however, children attending Madrasa Resource Centre preschools achieved significantly higher scores overall. The findings are partially relevant for Malawi, as approximately 13% of the population are Muslim. Later research by Mwaura and Marfo (2011) into these Madrasa Resource Centres emphasised the importance of partnering with universities to respond to the local cultural and socioeconomic realities and deliver effective ECD programmes. This review did not find any similar studies of other faith based ECD provision in the region.

Social protection schemes and ECD

An impact evaluation of cash and food transfers at ECD centres in Karamoja, Uganda (Gilligan et. al., 2013) compared the effects of providing food and cash transfers to households with children participating in ECD centres. Food-recipient households, in general, responded very similarly to control households regarding their experience with ECD centres. However, both food-recipient and cash-recipient households reported significantly better quality ECD than control households. Compared to food-recipient or control households,

cash-recipient households reported a significantly higher value of gifts given to the ECD caregiver as payment for volunteering; a significantly higher proportion of cash-recipient households reported attending ECD centre meetings; and a significantly higher proportion of cash-recipient households reported that their community's ECD centre had a shelter, access to a latrine, access to hand-washing facilities, and other materials. Relative to food-recipient or control households, a much higher proportion of cash-recipient households reported providing cash gifts to ECD caregivers.

A systematic review of social protection programmes (Britto et al., 2013) found very little research linking social protection programmes to children's early cognitive development and schooling. It found studies with positive results in these areas in Mexico and Nicaragua. Two studies found mixed effects on early childhood cognitive development, and one found mixed effects on schooling. One of the studies reviewed was based in Malawi. Covarrubias et al. (2012) found that the Malawi Social Cash Transfer (SCT) scheme limited child labour outside the home while increasing child involvement in household farm activities.

7. References

Below is the list of references used in this Helpdesk. Summaries/abstracts have been included for some of the most relevant resources.

Alderman, H. (ed.) (2011). *No Small Matter: The impact of poverty, shocks, and human capital investments in Early Childhood Development*. Human Development Perspectives. Washington, D.C.: The World Bank. Retrieved from: <http://siteresources.worldbank.org/EXTAFRREGTOPEDUCATION/Resources/444707-1291071725351/nosmallmatter.pdf>

Summary: The relative lack of attention to early childhood development in many developing countries remains a puzzle – and an opportunity. There is increasing evidence that investments in the nutritional, cognitive, and socio-emotional development of young children have high payoffs. Researchers and development practitioners are building on this evidence to raise the topic's profile and bring it to the attention of decision makers. This volume is an important contribution to these efforts. It thoroughly and carefully reviews the most recent empirical literature linking early childhood development outcomes, poverty, and shocks. In doing so, it brings an added perspective to the debate and makes the case that investments in the first years of life have the potential to be a critical component of poverty reduction strategies. The volume also goes beyond simply documenting the consequences of insufficient or inadequate focus on early childhood and identifies the range of policy options available to policy makers.

Alderman, H. and Bundy, D. (2011). School Feeding Programs and Development: Are we Framing the Question Correctly? *The World Bank Research Observer*, July. <http://wbpro.oxfordjournals.org/content/early/2011/07/26/wbro.lkr005.full>

American Institutes for Research. (2013) Getting Ready for School: a child-to-child approach Program evaluation report http://www.childtochild.org.uk/wp-content/uploads/2014/07/AIR-Report-of-Child-to-Child-Pilot-Findings_June_-2013_A4.pdf

Bhana, A., Biersterker, L., Rule-Groenewald, C. and Wilford, A. (2014) Exploring perspectives on ECDE practices to support young children. Human Sciences Research Council, Pretoria

Summary: The provision of good quality ECDE programmes in developing country contexts is viewed as essential to ensuring a viable future for children growing up in

poverty and with limited access to educational and learning resources. However, if parents and other key stakeholders remain uninformed about the benefits of ECDE, there is likely to be little support for such activities and consequently poor implementation of such programmes. Improving community-level knowledge of the importance of ECDE in promoting later learning, health and social and emotional well-being of children is a key responsibility. The Early Childhood Development and Education (ECDE) Programme of Open Society Initiation for Southern Africa seeks to significantly improve Southern Africa's early childhood sector. The ECDE Programme has thus made a concerted effort to engage in multi-levelled interventions in selected Southern African countries. This report explores ECDE knowledge, attitudes, beliefs and practices from the perspectives of parents, teachers, local and national key leaders in three African countries namely Swaziland, Zambia and Malawi. The project set out to develop a generic culturally sensitive and participatory methodology that can be used by OSISA to generate information on ECDE knowledge attitudes, beliefs and practices in areas in which they deliver programmes and strengthen local capacities by training local ECDE community workers and professionals in these participatory methodologies.

Bowen, A. Ma, H., Ou, J., Billhimer, W., Long, T., Mintz, E., Hoekstra, R. M. and Luby, S. (2007). A Cluster-Randomized Controlled Trial Evaluating the Effect of a Hand-Washing-Promotion Programme in Chinese Primary Schools. *The American Journal of Tropical Medicine and Hygiene*, 76(6); 1166–1173.
<http://www.ncbi.nlm.nih.gov/pubmed/17556631>

Britto, P., Williamson, A., Snow, T. & Mankad, K. (2013). Social protection programs and early childhood development: unexplored potential. Plan International Australia

Conde-Agudelo, A. and Díaz-Rossello, J. L. (2014). Kangaroo Mother Care to Reduce Morbidity and Mortality in Low Birthweight Infants. *Cochrane Database of Systematic Reviews*, 3.
<http://www.healthynewbornnetwork.org/sites/default/files/resources/Conde-Agudelo%20KMC%202014-Cochrane%20review.pdf>

Civil Society Education Coalition (CSEC). (2011). *Status of Early Childhood Development in Malawi: Analysis of funding trends; successes and challenges*. CSEC.

From introduction: This study is a review of the status of Early Childhood Development (ECD) in Malawi. The study focused on, among others, ECD funding trends; achievements; as well as main challenges being met. The findings point out that ECD services in Malawi are critically under-funded. In the same vein, the study notes that while key strides have been made in terms of policy; coordination and management; capacity development; there still remain very critical gaps at these levels. **Selected Key Findings:** (1) there is a level of commitment on the part of government in terms of policy direction on ECD services in Malawi, demonstrated through the development of the NESP which has singled out ECD as one of its key priority areas and the writing of an ECD policy, (2) actual funding to the sector as compared to what is stipulated in the ECD policy strategy is low, (3) the ECD sector has a very weak coordination and management mechanism, and stakeholder coordination of ECD services is also very weak, (4) access to ECD services in Malawi is very low and it is estimated that 68% of children between the ages 0-8 years do not have any access to ECD services, (5) there is an acute shortage of ECD centres, especially in rural areas, and in urban areas, accessibility is mostly hindered by high fees charged by most pre-schools, (6) most ECD services in the country are provided by private and community stakeholders which are for the most part voluntary based, (7) the Government has no established ECD centre in the country, (8) most ECD centres such as CBCCs are run by un-qualified staff, (9) while the Association of Preschool Playgroups in Malawi (APPM) offers tailor-made training for ECD educators

in Malawi, its reach has been very limited, especially in rural communities, (10) infrastructure in most ECD service centres is below par and child un-friendly, especially in CBCCs, where WASH facilities are sub-standard, and (11) while progress has been made to developed documents for standardization of ECD services, most principles outlined in them are not adhered to.

Covarrubias, K., Davis, B., & Winters, P. (2012). From Protection to Production: Productive Impacts of the Malawi Social Cash Transfer Scheme. *Journal of Development Effectiveness*, 4 (1): 50-77

Abstract: The Malawi Social Cash Transfer (SCT) scheme is part of a wave of social protection programmes providing cash to poor households in order to reduce poverty and hunger and promote child education and health. This paper looks beyond the protective function of such programmes, analysing their productive impacts. Taking advantage of an experimental impact evaluation design, we find the SCT generates agricultural asset investments, reduces adult participation in low skilled labour, and limits child labour outside the home while increasing child involvement in household farm activities. The paper dispels the notion that cash support to ultra-poor households in Malawi is charity or welfare, and provides evidence of its economic development impacts.

Cuna Mas. (2014). Lima, Peru. Retrieved from: <http://www.cunamas.gob.pe/>

DiGirolamo, A., Stansbery, P. & Lung'aho, M. (2014). Advantages and challenges of integration: Opportunities for integrating early childhood development and nutrition programming. *Annals of the New York Academy of Sciences*, 1308: 46-53. Retrieved from: <http://onlinelibrary.wiley.com/doi/10.1111/nyas.12323/abstract>

Abstract: A growing body of evidence supports the notion that integrated programs addressing nutrition and stimulation provide stronger impacts on nutritional and developmental outcomes than either intervention alone. When translating evidence into practice, several advantages and challenges for integration can be noted. Combined interventions may be more efficient than separate interventions, because they are intended for the same population and make use of the same facilities, transportation, and client contacts. In addition, for families, particularly for those most at risk, combined interventions can also lead to increased access to services. However, in order for integrated nutrition and early childhood development interventions to be successful, a variety of challenges must be addressed. These include workload of staff and supervisors, communication and coordination among different ministries and among staff in different sectors, and common language and measurement. It must be acknowledged at both the national and community levels that comprehensive, integrated care addressing both the physical and developmental needs of the child is key to promoting optimal health, growth, and development for children.

Drouin, O. & Heymann, J. (2010). Scaling up and sustaining community-based care for preschool and school-age children – successes and challenges in Malawi. *Vulnerable Children & Youth Studies. Jun2010 Supplement*, (5): 31-39. DOI: 10.1080/17450121003758854

Abstract: Community-based organizations (CBOs) are an important model for the care of orphans and other vulnerable children whose life and development are threatened by human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS) and poverty. However, data are lacking on the challenges and solutions enabling successful expansion of these programs to the national level. This article presents some of the experiences encountered by Malawi in the expansion of their network of CBOs. Challenges addressed by CBO, intergovernmental organisation (IGO) and government leaders centred on developing a shared understanding of goals and solutions as well as on obtaining, training and retaining sufficient care providers. The

implications of Malawi's experience in these areas for the effectiveness of other programs are discussed.

Engle P., Fernald, L., Alderman, H., Behrman, J., O'Gara, C., Yousafzai, A., Cabral de Mello, M., Hidrobo, M., Ulkuer, N., Ertem, I., Iltus, S. and the Global Child Development Steering Group (2011). Strategies for Reducing Inequalities and Improving Developmental Outcomes for Young Children in Low-income and Middle-income Countries. *The Lancet*, 378: 1339-53. Retrieved from: <http://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2811%2960889-1/abstract>

Summary: This report is the second in a Series on early child development in low-income and middle-income countries and assesses the effectiveness of early child development interventions, such as parenting support and preschool enrolment. The evidence reviewed suggests that early child development can be improved through these interventions, with effects greater for programmes of higher quality and for the most vulnerable children. Other promising interventions for the promotion of early child development include children's educational media, interventions with children at high risk, and combining the promotion of early child development with conditional cash transfer programmes. Effective investments in early child development have the potential to reduce inequalities perpetuated by poverty, poor nutrition, and restricted learning opportunities. A simulation model of the potential long-term economic effects of increasing preschool enrolment to 25% or 50% in every low-income and middle-income country showed a benefit-to-cost ratio ranging from 6.4 to 17.6, depending on preschool enrolment rate and discount rate.

Engle, P., Black, M., Behrman, J., Cabral de Mello, M., Gertler, P., Kapiriri, L., Martorell, R., Young, M. and the International Child Development Steering Group (2007). Strategies to Avoid the Loss of Developmental Potential in More than 200 Million Children in the Developing World. *The Lancet*, 369: 229-242. Retrieved from: <http://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2807%2960112-3/abstract>

Fernald, L. C. H., Gertler, P. J., and Neufeld, L. M. (2009). 10-year effect of Oportunidades, Mexico's Conditional Cash Transfer Programme on Child Growth, Cognition, Language and Behaviour: a Longitudinal Follow-up Study. *The Lancet*, 374 (9706): 1997-2005. Retrieved from: [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(09\)61676-7/abstract](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(09)61676-7/abstract)

Fernald, L., Kariger, P., McConnell, C., Neuman, M. and Özler, B. (2015) Protecting Early Childhood Development in Malawi. Impact evaluation. Power point presentation, January 19, 2015 Lilongwe, Malawi

Fisher, W., Kholowa, F., Chibwana, K. & Silo, L. (2009). *Success against the odds: A positive deviance study of Community-based childcare centres in Malawi*. UNICEF. Retrieved from: http://www.positivedeviance.org/pdf/publications_maternalchildhealth/MalawiPDFFinalReportJHJun152009.pdf

Introduction: Community-based childcare centres (CBCCs) are critical in providing early childhood development (ECD) services to children under five in Malawi. UNICEF Malawi has supported the Government of Malawi (GoM) to develop its ECD agenda and community initiatives to implement CBCC activities. In 2006-7, the Ministry of Women and Child Development (MoWCD) and UNICEF carried out a national inventory of CBCCs in Malawi, which confirmed the need to improve the quality of services in most cases. However, the inventory also highlighted the fact that a few CBCCs manage to provide above average services to children. This positive deviance

(PD) study looks at why some CBCCs are more successful than others, despite operating under the same constraints.

Fitzsimons, E., Malde, B., Mesnard, A. & Vera-Hernandez, M. (2014). *Nutrition, information, and household behaviour: Experimental evidence from Malawi*. Institute for Fiscal Studies (IFS) Working Papers (W14/02). ESRC. Retrieved from: <http://www.ifs.org.uk/wps/wp201402.pdf>

Abstract: Incorrect knowledge of the health production function may lead to inefficient household choices, and thereby to the production of suboptimal levels of health. This paper studies the effects of a randomised intervention in rural Malawi which, over a six-month period, provided mothers of young infants with information on child nutrition without supplying any monetary or in-kind resources. A simple model first investigates theoretically how nutrition and other household choices including labour supply may change in response to the improved nutrition knowledge observed in the intervention areas. We then show empirically that, in line with this model, the intervention improved child nutrition, household consumption and consequently health. These increases are funded by an increase in male labor supply. We consider and rule out alternative explanations behind these findings. This paper is the first to establish that non-health choices, particularly parental labor supply, are affected by parents' knowledge of the child health production function.

Gertler, P., Heckman, J., Pinto, R., Zanolini, A., Vermeersch, C., Walker, S. and Grantham-McGregor, S. (2014). Labor Market Returns to an Early Childhood Stimulation Intervention in Jamaica. *Science*, 344(6187), 998-1001. Retrieved from: <http://www.sciencemag.org/content/344/6187/998>

Gilligan, D.O., Margolies, A., Quinones, E. & Roy, S. (2013). *Impact Evaluation of Cash and Food Transfers at Early Childhood Development Centers in Karamoja, Uganda. Final Impact Report*. WFP/UNICEF/IFPRI. Retrieved from: <http://documents.wfp.org/stellent/groups/public/documents/resources/wfp257677.pdf>

Gladstone, M., Lancaster, G.A., Umar, E., Nyirenda, M., Kayira, E., et al. (2010). The Malawi Developmental Assessment Tool (MDAT): The Creation, Validation, and Reliability of a Tool to Assess Child Development in Rural African Settings. *PLoS Med*, 7 (5): e1000273. doi: 10.1371/journal.pmed.1000273

Abstract: Background. Although 80% of children with disabilities live in developing countries, there are few culturally appropriate developmental assessment tools available for these settings. Often tools from the West provide misleading findings in different cultural settings, where some items are unfamiliar and reference values are different from those of Western populations. Methods and Findings. Following preliminary and qualitative studies, we produced a draft developmental assessment tool with 162 items in four domains of development. After face and content validity testing and piloting, we expanded the draft tool to 185 items. We then assessed 1,426 normal rural children aged 0–6 y from rural Malawi and derived age-standardized norms for all items. We examined performance of items using logistic regression and reliability using kappa statistics. We then considered all items at a consensus meeting and removed those performing badly and those that were unnecessary or difficult to administer, leaving 136 items in the final Malawi Developmental Assessment Tool (MDAT). We validated the tool by comparing age-matched normal children with those with malnutrition (120) and neurodisabilities (80). Reliability was good for items remaining with 94%–100% of items scoring kappas >0.4 for interobserver immediate, delayed, and intra-observer testing. We demonstrated significant differences in overall mean scores (and individual domain scores) for children with neurodisabilities (35 versus 99 [$p < 0.001$]) when compared to normal children. Using a pass/fail technique similar to the Denver II, 3% of children with neurodisabilities passed in comparison to 82% of normal children, demonstrating good sensitivity (97%) and specificity (82%).

Overall mean scores of children with malnutrition (weight for height <80%) were also significantly different from scores of normal controls (62.5 versus 77.4 [$p<0.001$]); scores in the separate domains, excluding social development, also differed between malnourished children and controls. In terms of pass/fail, 28% of malnourished children versus 94% of controls passed the test overall. Conclusions. A culturally relevant developmental assessment tool, the MDAT, has been created for use in African settings and shows good reliability, validity, and sensitivity for identification of children with neurodisabilities.

- Grantham-McGregor, S., Cheung, Y. B., Cueto, S., Glewwe, P., Richter, L., and Strupp, B. (2007). Developmental Potential in the First 5 Years for Children in Developing Countries. *The Lancet*, 369 (9555): 60–70.
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2270351/>
- Humphrey, J., Johns Hopkins School of Public Health. (2012). SHINE Sanitation, Hygiene, Infant Nutrition Efficacy Project. In: ClinicalTrials.gov [Internet]. Bethesda (MD): National Library of Medicine (US). 2012- [cited 2015 Oct 8]. Available from: <https://clinicaltrials.gov/show/NCT01824940> NLM Identifier: NCT01824940
- Ilifa Labantwana. (2013c). *The Essential Package: Early Childhood Services and Support to Vulnerable Children in South Africa*. Cape Town: Ilifa Labantwana.
<http://www.ilifalabantwana.co.za/the-essential-package-of-ecd-in-south-africa/>
- Kholowa, F. & Rose, P. (2007). Parental or policy maker misunderstandings? Contextual dilemmas of pre-schooling for poverty reduction in Malawi. *International Journal of Educational Development*, 27 (4): 458-472. DOI: 10.1016/j.ijedudev.2006.10.007
Abstract: With the move towards achieving universal primary education, focus is increasingly shifting towards early childhood development. Within this, debates are apparent between those who view education at this stage holistically, with concern that it should not be directly linked with primary schooling, and those who view it more explicitly as contributing towards achieving universal primary completion by ensuring that children will be appropriately prepared for studying at this level. Moreover, it is apparent that views of different stakeholders vary. Evidence from Malawi indicates that national policies are closely linked with the international agenda, with a focus on holistic approaches. However, parents view pre-schooling in a narrower way, as an important step towards preparing their children for studying successfully at the primary level. Rather than considering this as parental ‘misunderstanding’, we argue that this perspective shows a greater awareness of local realities and is, therefore, more likely to support an escape from poverty.
- Kristjansson, B., Petticrew, M., MacDonald, B., Krasevec, J., Janzen, L., Greenhalgh, T., Wells, G. A., MacGowan, J., Farmer, A. P., Shea, B., Mayhew, A., Tugwell, P. and Welch, V. (2007). *School Feeding for Improving the Physical and Psychosocial Health of Disadvantaged Students*. *Cochrane Database of Systematic Reviews*, 1.
http://r4d.dfid.gov.uk/PDF/Articles/SR_SchoolFeeding.pdf
- Kristjansson, E. et al. (2015). Early childhood feeding interventions to improve the physical and psychosocial health of disadvantaged children aged 3 months to 5 years. Effectiveness Review. *The Campbell Collaboration Library of Systematic Reviews*. Retrieved from: <http://campbellcollaboration.org/lib/project/102/>
- Lake, A. and Chan, M. (2014). Putting Science into Practice for Early Child Development. *The Lancet*, Comment. Retrieved from: [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(14\)61680-9/fulltext#article_upsell](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(14)61680-9/fulltext#article_upsell)

Lopez-Quintero, C., Freeman P. Neumark, Y. (2009). Handwashing among School Children in Bogota, Colombia. *American Journal of Public Health*, 99(1); 94–101.
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2636611/>

Lynch, P. & Wazakili, M. (2014). *Evaluation of Open Society Initiative for Southern Africa project to strengthen early development and education for children with disabilities*. OSI.

From executive summary: This report evaluates the achievements and challenges of the Open Society Initiative in Southern Africa (OSISA) project and the challenges of implementing and running Community-based child centres (CBCCs) in Chikwawa District. The evaluation identified considerable government dependency on the non-government sector to run ECDE programmes; (which could be referred to as ‘over-dependency syndrome’). Not all NGOs are able to sustain large programmes because of funding restrictions and so specific components such as training of caregivers or investment in infrastructure can drop. Considerable challenges arise when NGOs are unable to maintain the same budgets in order to fill gaps in provision that the government should be funding. The project was successful in providing specific training to the intended beneficiaries (local government workers, management committees, caregivers, primary school teachers) using different organisations and individuals. Although monitoring and evaluation procedures are devolved to district Social Welfare Offices, capacity is very limited at the district level. In Chikwawa, there is very little funding available to conduct monitoring activities due to poor staffing levels, poor understanding about what M&E is and lack of transportation. The project has been successful in raising awareness about childhood disability in the CBCCs and surrounding villages, particularly in those centres that were part of phase 1, but there still needs to be much more follow up work by local government workers to advise and support committees with organising and setting up the kitchen, planning food collection activities, tracing and identifying children with disabilities and counselling parents in surrounding villages. Management committees said they would continue to work voluntarily but they need to have visits from local representatives of PODCAM to provide them with regular advice about how best to carry out sensitisation work in their community. CBCC Committees seem to be completely isolated and do not have the opportunity to meet other committees to share practices and exchange ideas on how to run CBCCs. They also require more support from local government workers to apply for funding to build classrooms, kitchens and create gardens next to the centres.

Lynch, P., Jolley, E. & Gladstone, M. (2013). Emerging priorities from an early childhood development and education training programme in Malawi for families with children who have visual impairment. Short paper presented at: 12th UKFIET International Conference on Education and Development, University of Oxford 10 12 September 2013.

Summary: In order to provide supportive care for children with visual impairment in low income settings, cost-effective and efficacious programmes need to be established and integrated with existing community, education and health services at district level. However, evidence is lacking on how best to design, implement and evaluate such programmes at a local level in the context of limited resources (Sen and Goldbart, 2005). There are certain programmes which look at parenting and developmental stimulation for any child in community settings in low and middle income settings (e.g. WHO/UNICEF Care for Development, 2012). Similarly, there are also some programmes which provide advice in resource limited settings such as those created by Khan (1998) and also by Braga (2005) mainly for children with physical disabilities and by Gona et al (2013) with children with pervasive developmental delay and communication conditions. **Aims:** The main aim of this 18 month study is to create a training package for parents and community based professionals in education and social welfare to help work on developmental stimulation (including play) and early communication with children with visual impairment in community settings in Southern

Malawi. It also plans to explore the perceptions and experiences of families and professionals working and caring for children with visual impairment in these settings. **Intersectorality/multi-sector approaches:** Evidence from this project indicates that multi-sectoral collaboration, including cooperation between different governmental and non-governmental agencies, is an important component of successful early childhood initiatives (Engle et al. 2007). Integrating health, education, social and economic development is vital to develop a supportive environment and the services necessary to support childhood development, especially among the most disadvantaged. As well as ensuring a wide range of services available to families, collaborative efforts can improve the coverage of services by increasing the number of opportunities where they may come in to contact with involved services. While health services are often a child's first contact with the State, disadvantaged children are particularly likely to be overlooked and not identified for inclusion until they are older. In Malawi there is already work underway to improve the links between health and education sectors, often through school based nutrition or water and sanitation initiatives through UNICEF Malawi. This project is seeking to strengthen ties between the Education, Social Welfare and Health Services at district level. By engaging support workers from a variety of cadres to provide ECDE services to the identified families, the project is expecting to highlight the various benefits each group brings alongside the standard package of services and to highlight where inter-agency collaboration provides added benefit to the recipients.

Malmberg, L-E, Mwaura, P. & Sylva, K. (2011). Effects of a preschool intervention on cognitive development among East-African preschool children: A flexibly time-coded growth model. *Early Childhood Research Quarterly*, 26 (1): 124-133.

<http://dx.doi.org.ezproxy.newcastle.edu.au/10.1016/j.ecresq.2010.04.003>

Abstract: The aim of the study is to investigate the effects of the Madrasa Resource Center (MRC), a child-centered intervention program, on East-African (Kenya, Zanzibar, and Uganda) preschool children's cognitive development. Altogether 321 children (153 non-intervention and 168 intervention) participated in a cross-sequential study over three time-points during preschool (mean ages 4.3, 6.0, and 7.1 years). A multilevel model (MLM; time-points nested within children nested within schools), in which time was coded flexibly (i.e., child's age operationalized as months from start of the intervention), showed a beneficial curvilinear effect of the intervention program on children's cognitive gains. A moderation analysis suggested that the effect of observed preschool quality (ECERS) was stronger in the intervention program. The findings are discussed within the context of East-African preschool policy.

Martinez, S., Naudeau, S. and Pereira, V. (2012). *The promise of preschool in Africa: a randomized impact evaluation of early childhood development in rural Mozambique*. Washington DC: World Bank (with Save the Children). Retrieved from:

<http://www.3ieimpact.org/evidence/impact-evaluations/details/106/>

Abstract: Save the Children's Early Childhood Development (ECD) project in Mozambique aims to support young children in communities affected by HIV/AIDS by providing community mobilisation and resources for the construction of ECD centres that facilitate children's learning and cognitive development. The ECD programme includes daily 3.25-hour preschool classes with lessons in literacy and math, play time, as well as monthly meetings offered to caregivers of the enrolled children on the subjects of health, nutrition and literacy. For the purposes of this evaluation, Save the Children randomly selected 30 communities from a sample of 76 to receive access to the ECD programme. The impact analysis rests on panel data collected in early 2008 and early 2010 from a random sample of 2,000 households with preschool-aged children in each of the 76 communities, in addition to surveys of community leaders and first-grade students in each community. The surveys assess child development, including cognitive ability, gross motor skills, fine motor skills, language and communication, socioemotional development and health. Data collected at the

household level allow for an analysis of secondary impacts on older siblings and caregivers. The authors present two models of analysis, intent to treat (ITT) and treatment on the treated (TOT). The ITT model estimates the mean difference in outcomes between treatment and control communities. The model uses treatment status as an instrumental variable for preschool attendance, and uses population weights and robust standard errors clustered at the community level to estimate the regression. The TOT analysis estimates impact on those children who enrolled in preschool using a two-stage least squares model, using an endogenous indicator of preschool attendance and instrumenting for random assignment at the community level. These models are used to assess the impact of the ECD programme on primary school enrollment, child development outcomes, child growth and health and on older siblings and adult caregivers.

Mbuya, M. (2013). *Baby WASH: Sanitation and Hygiene Interventions to Prevent Environmental Enteropathy, Stunting, and Anemia in Infants. From the SHINE Study.* (PowerPoint Presentation). Forum on Stunting Reduction. Nutrition and Beyond for Solutions. Addis Ababa, October 24-25, 2013. Retrieved from: <http://www.aliveandthrive.org/sites/default/files/Mduduzi%20Mbuya%20WASH%20Sector.pdf>

Messner, L., and Levy, M. (2012). Appendix 1: Case study of community-based childcare centres in Malawi. In *Community-based Early Childhood Development Centers for Reaching Orphans and Vulnerable Children: Considerations and Challenges*. Arlington, VA: USAID's AIDS Support and Technical Assistance Resources, AIDSTAR-One, Task Order 1. http://ovcsupport.net/wp-content/uploads/Documents/Communitybased_early_childhood_development_centers_for_reaching_orphans_and_vulnerable_children_considerations_and_challenges_1.pdf

Ministry of Gender, Children and Social Welfare, Republic of Malawi. (2014). *2015 Annual Report for Integrated Early Childhood Development. Mmera Mpoyamba*. Lilongwe: Government of Malawi.

Munthali, A.C., Mvula, P.M. & Silo, L. (2014). Early childhood development: the role of community based childcare centres in Malawi. *Springerplus*, 3: 305. DOI: [10.1186/2193-1801-3-305](https://doi.org/10.1186/2193-1801-3-305)

Abstract: Background. Somatic changes including growth and development of the brain of a human being occur very early in life. Programmes that enhance early childhood development (ECD) therefore should be part of the national agenda. Cognizant of this fact, the Malawi Government together with development partners facilitated the establishment of community-based child care centres (CBCCs) which are owned and managed by community members. This study was aimed at understanding how CBCCs operated and their core functions. Methods. Using information from databases kept by the District Social Welfare Officers from all the 28 districts in Malawi, coupled with snowballing, all functioning CBCCs were enumerated. A questionnaire was administered to the head of the CBCC or a care giver. Highly trained Research Assistants also carried out observations of the structures around the centres and the activities that actually happened. Data was analysed using a Statistical Package for Social Sciences. Results. Communities provide structures, support for care givers, food, utensils, labour and play materials for the children in CBCCs. The first ECD centre was established in 1966 but the real surge in establishing these happened towards the end of the 1990s and by 2007 there were 5,665 CBCCs in Malawi caring for 407,468 children aged between 3 and 5 years. CBCCs were established to provide pre-primary school learning, and in some cases provide special care to orphans and other vulnerable. Conclusions. Despite the fact that most CBCC premises and structures fell short of the standards laid down by the CBCC profile, the

activities and services provided were mostly to the book. Children were provided with nutritious foods and subjected to play that stimulated their cognitive and mental development. Despite the fact that some members of the community do not realize the value of the CBCCs, the existence of these institutions is an opportunity for the community to take care of their children communally, a task that has become imperative as a result of the upsurge in the number of orphans as a result of the HIV and AIDS epidemic. The study recommends that Malawi should take investments in ECD programmes as a priority.

Mwaura, P., Sylva, K. and Malmberg, L-E. (2008). Evaluating the Madrasa Preschool Programme in East Africa: A Quasi-Experimental Study. *International Journal of Early Years Education*, 16; 237–55.

Mwaura, P.A.M. & Marfo, K. (2011). Bridging Culture, Research, and Practice in Early Childhood Development: The Madrasa Resource Centers in East Africa. *Child Development Perspectives*, 5 (2): 134-139. DOI: 10.1111/j.1750-8606.2011.00168.x

Neuman, M., McConnell, C. & Foster, K. (2014). From Early Childhood Development Policy to Sustainability: The Fragility of Community-Based Childcare Services in Malawi. *International Journal of Early Childhood*, 46 (1): 81-99.

Abstract: Over the past 20 years, more than 6,000 community-based childcare centers (CBCCs) have been created in mostly rural areas of Malawi. Although the original purpose of these CBCCs was to meet the care needs of orphans and vulnerable children affected by the HIV/AIDS pandemic, the services have since expanded their mandate to provide early development and learning opportunities as well as part-time childcare for working parents. The Malawi national policy is to expand this network of CBCCs to improve early childhood development outcomes, however, sustainability of these services has been an ongoing challenge. This article discusses the roots and extent of this sustainability challenge, drawing on lessons learned from recent fieldwork conducted as part of a baseline study.

Phuka, J., Maleta, K., Mavuto, T. & Gladstone, M. (2014). A job analysis of community health workers in the context of integrated nutrition and early child development. *Annals of the New York Academy of Sciences*, 1308 (1): 183-191.

Abstract: Stunting and poor child development are major public health concerns in Malawi. Integrated nutrition and early child development (ECD) interventions have shown potential to reduce stunting, but it is not known how these integrated approaches can be implemented in Malawi. In this paper, we aimed to evaluate the current jobs status of community health workers and their potential to implement integrated approaches. This was accomplished by a desk review of nutrition and ECD policy documents, as well as interviews with key informants, community health workers, and community members. We found that Malawi has comprehensive policies and well-outlined coordination structures for nutrition and ECD that advocate for integrated approaches. Strong multidisciplinary interaction exists at central levels but not at the community level. Integration of community health workers from different sectors is limited by workload, logistics, and a lack of synchronized work schedules. Favorable, sound policies and well-outlined coordination structures alone are not enough for the establishment of integrated nutrition and ECD activities. Balanced bureaucratic structures, improved task allocation, and synchronization of work schedules across all relevant sectors are needed for integrated intervention in Malawi.

Programme Evaluation Organisation (PEO) Planning Commission (2011). *Evaluation Report on Integrated Child Development Services*. New Delhi: Government of India.
http://planningcommission.nic.in/reports/peoreport/peoevalu/peo_icds_v1.pdf

Pronyk, P. M. et al. (2012). The effect of an integrated multisector model for achieving the Millennium Development Goals and improving child survival in rural sub-Saharan Africa: a non-randomised controlled assessment. *The Lancet*, 379 (9832): 2179 - 2188. DOI: [http://dx.doi.org/10.1016/S0140-6736\(12\)60207-4](http://dx.doi.org/10.1016/S0140-6736(12)60207-4)

Roger Federer Foundation. (2015). Early Childhood Education Initiative. Malawi. Involvement of the Roger Federer Foundation. Retrieved from: <http://www.rogerfedererfoundation.org/en/initiatives/education-in-africa/malawi/early-childhood-education-initiative/>

SABER, World Bank Group. (2015). *Malawi. Early Childhood Development. Systems Approach for Better Education Results (SABER) Country Report 2015*. Washington, D.C.: World Bank. Retrieved from: http://wbfiles.worldbank.org/documents/hdn/ed/saber/supporting_doc/CountryReports/ECD/SABER_ECD_Malawi_CR_Final_2015.pdf

Summary: This 27-page report presents an analysis of the Early Childhood Development (ECD) programs and policies that affect young children in Malawi and recommendations to move forward. This report is part of a series of reports prepared by the World Bank using the SABER ECD framework and includes analysis of early learning, health, nutrition, and social and child protection policies and interventions in Malawi, along with regional and international comparisons.

Talaat, M., Afifi, S., Dueger, E., El-Ashry, N., Marfin, A., Kandeel, A., Mohareb, E. and El-Sayed, N. (2011). Effects of Hand Hygiene Campaigns on Incidence of Laboratory-confirmed Influenza and Absenteeism in Schoolchildren, Cairo, Egypt. *Emerging Infectious Diseases*, 17(4); 619-625. Retrieved from: http://wwwnc.cdc.gov/eid/article/17/4/10-1353_article

Tinajero, A. R. (2011) Lessons from Scaling Up Cuba's 'Educate Your Child' programme. *Early Childhood Matters*, 117. Retrieved from: http://earlychildhoodmagazine.org/wpcontent/uploads/2012/01/ECM117_Cuba%E2%80%99s-Educate-Your-Childprogramme_2.pdf

Uny, I.W. (2008). Factors and motivations contributing to community volunteers' participation in a nursery feeding project in Malawi. *Development in Practice*, 18 (3): 437-445. DOI: 10.1080/09614520802030649

Abstract: This article reports on a study to explore the factors and motivations that contribute to community volunteers' participation in a nursery feeding project in Malawi. Semi-structured interviews were conducted with community volunteers in 14 of the 32 sites in the programme. The findings pointed to a mix of intrinsic motivations, namely a deep concern for orphans and vulnerable children, a moral obligation to help, and a declared love of the work undertaken, and also to external factors such as spirituality, links of reciprocity, and the building of social capital. Understanding what motivates volunteers to take part in resource-poor settings is crucial to recognising, facilitating, and sustaining the work that they do. Further research into volunteering in the South is crucially needed.

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Introduction: This study, conducted by Coram Children's Legal Centre on behalf of the Ministry of Gender Children and Social Welfare, and supported by UNICEF, aims to identify entry points to strengthen child protection (CP) within early childhood development (ECD) in Malawi. The assessment analyses child protection interventions and mechanisms within early childhood development, identifies achievements, as well as areas of concern and capacity gaps to be addressed by stakeholders. The primary objective of the assessment is to make clear, evidence-based recommendations to improve the capacity of the sector to prevent and respond to cases of violence, abuse, exploitation and neglect of children, and to strengthen clear linkages with the National Child Protection System, which is currently being established.

8. Additional information

This query response was prepared by **Ruth Naylor (CfBT)**, **Stephanie Bengtsson (IDS)** and **Imogen Featherstone (Leeds Nuffield Centre for International Health and Development)**.

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