



The Malawi Priorities Project

POLICY BRIEF

The costs and benefits of expanding and improving early childhood education in Malawi

June 2021

KEY MESSAGES

- Quality early childhood education (ECE) increases literacy levels, improves school enrolment and achievement, and enhances developmental outcomes. While Malawi has been successful in its ability to expand early childhood education to 47% of the 3-5 year olds through Community Based Child Care Centers (CBCCs), there is still room for improvement. Over half of young children remain unenrolled in pre-school, and the quality of the roughly 12,400 CBCCs varies considerably with many centers lacking key infrastructure and materials. Furthermore, only 50% of caregivers have received training in providing pre-primary education.
- Of the two interventions examined in the paper focusing on ECE, expanding the CBCC network generates higher value-for-money. While there are strong economic incentives for communities to establish CBCCs for caregiving, many do not - due to start-up frictions, in particular lack of awareness, coordination and training. A government program could assist unserved communities to establish CBCCs - expanding the network and improving reach and accessibility.
- A government program assisting unserved communities to establish CBCCs would be inexpensive in the short run, only MWK 5,700 per child per year. Additionally, community members would have to provide volunteer time of around MWK 11,300 per child per year. The most immediate benefit is that it will free up parents' time for income-generating activities. This benefit is estimated at MWK 63,400 per child, showing that in the short run, CBCCs are a sound investment for communities as a whole, with time saved outweighing the total start-up costs per child 3 times over.
- In the long run, the benefit of attending pre-school is that children will progress 1.25 more years through the education system, leading to a 13.9% increase in wages as adults. This benefit is substantial: MWK 800,000 per child over their working life. This will also lead to additional costs in terms of increased schooling (MWK 37,000 per child) and increased opportunity costs of not working during a part of those extra years (MWK 143,000 per child). For every MWK 1 invested in this program, Malawi will reap MWK 4.5 in benefits.

Context

Much evidence points to the importance of early childhood development on overall life outcomes. For example, development and progress in cognitive, psychological, motor and language skills in early childhood significantly contributes to adult outcomes of educational achievement, health, work productivity and earnings (Campbell et al. 2014). Two key challenges face Malawian children in their earliest years

of life: under-nutrition and lack of pre-school training and stimulation for young children. While an earlier report from the Malawi Priorities identifies the smartest interventions to eliminate childhood undernutrition, the technical report on Early Childhood development focuses on ECD interventions that combine enhanced nutrition practices with child stimulation activities and education.

In this respect Malawi's community-based child care centers (CBCCs) – parent and community run preschools for 3-5 year



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"Quality early childhood education (ECE) increases literacy levels, improves school enrolment and achievement, and enhances developmental outcomes"

olds - have shown remarkable success. In addition to providing important early childhood education, CBCCs free up caregiver time for economic activities. There are 12,424 centers operational with the net pre-school enrolment rate standing at 47%. While this is a strong figure, it leaves ample room for improvement. Present challenges to expansion include:

- Certain communities lacked CBCCs due to start-up frictions, such as awareness, coordination and training;
- Lack of trained caregivers lowers the provision of quality education, with most caregivers having little or no training in teaching young children;
- Facilities used as CBCCs vary greatly, ranging from permanent structures including homes, churches, community centers to open air spaces, shelters and thatch structures; this challenge is further compounded by a lack safe and nearby sources of water, indoor play materials and permanent structures for learning; and,
- CBCC's voluntary and community-funded nature also makes them vulnerable to shocks, disasters, or absenteeism, meaning that they are not always open or properly functioning throughout the year, lowering reliability.

This paper focuses on preschool education in the latter half of this period in the life of the child, which in the case of Malawi is the age of 3-5 years, omitting findings related to childhood nutrition and health, which are discussed in another paper in the Malawi Priorities series.

Expanding the number of preschools is more cost-effective than improving existing ones

There are over 12,400 preschools or community-based childcare centers (CBCCs) in Malawi with nearly 35,000 non-salaried volunteer caretakers and helpers. At the current preschool enrollment rate, there are an estimated 66 children per preschool and 23.5 children enrolled per caregiver and helper. The intervention of expanding preschools to new communities involves a government

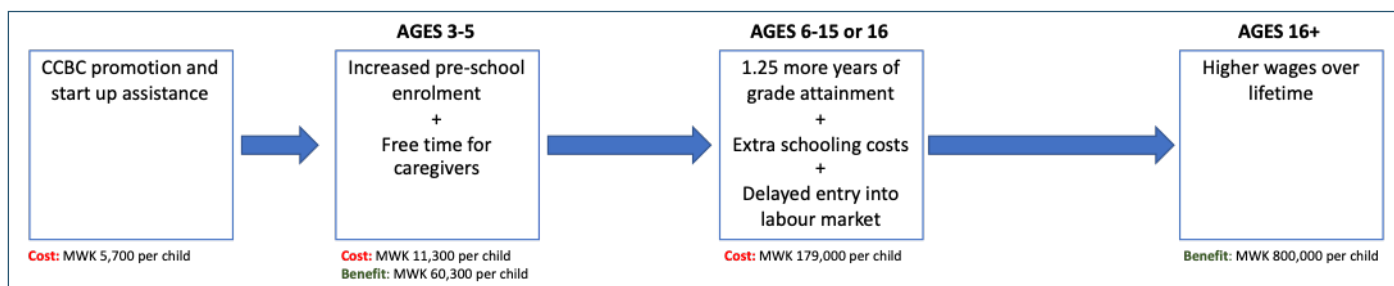
program to assist unserved communities overcome start-up frictions, in order to establish their own CBCCs with the aim of 80% enrolment for 3-5 year olds by 2030. This would mean an additional 200,000 children would attend pre-school in 2030. The costs of promotion are only MWK 5,700 per child, while teacher and helper costs are MWK 11,300 per child per year. It is assumed that, like many CBCCs, the new pre-schools would use vacant spaces and buildings at no cost.

This intervention provides better value-for-money than an alternative intervention of improving existing CBCCs. Specifically, a program that provides infrastructure, supplies, meals, salaries for caretakers and helpers, and hires additional helpers would cost MWK 130,000 per child per year. In the long run, additional schooling costs and opportunity costs increase this figure to MWK 255,000 per child. The incremental benefit of preschool improvement, over existing preschools, is 0.75 years of increased grade attainment. With this in mind, the increase in lifetime income per child amounts to MWK 481,000 plus a MWK 50,000 in food savings for households. The BCR of this intervention is 2.1.

It should be noted that both interventions examined in this report have lower BCRs than alternative education interventions for primary and secondary schooling analyzed in other Malawi Priorities papers. For example, technology assisted learning has a BCR of 106, teacher training has a BCR of 22.

The short-term benefits of the program would accrue primarily to caregivers, mostly mothers, who benefit by freeing up time for more economically productive activities. This productive time is valued at MWK 63,400 per child per year. In the long run, pre-school children benefit by progressing further through the education system, earning more income over their life amounting to approximately 800,000 MWK per child. On average, each child would obtain 1.25 years more grade attainment. Indirect costs, further on, include the cost of additional education provision from increased grade attainment (MWK 37,000) and cost of delayed labor force participation (MWK 142,000). Overall, the benefit cost ratio is 4.5.

Figure 1: Schematic of intervention costs and benefits over time



SUMMARY TABLE

Intervention	BCR Rating	Beneficiary Group	Extra Costs	Extra Benefits
Expanding the number of CBCCs	4.5 Fair (100% economic benefits)	Communities without CBCCs 200,000 more children in 2030	Short run MWK 17,000 Long run MWK 179,000	1.25 years of grade attainment 13.9% increase in lifetime earnings MWK 800,000 per child
Improving existing CBCCs	2.1 Fair (100% economic benefits)	All children currently in CBCCs 300,000 students in 2030	Short run MWK 130,000 Long run MWK 125,000	0.75 years of grade attainment 11.% increase in lifetime earnings MWK 530,000 per child incl. MWK 50,000 meal savings

Note: BCRs are based on costs and benefits discounted at 8% (see accompanying technical report). BCR ratings are determined on the following scale: Excellent, BCR > 15; Good, BCR 5-15; Fair, BCR 1-5; Poor, BCR < 1. This traffic light scale was developed by an Eminent Panel including several Nobel Laureate economists for a previous Copenhagen Consensus project that assessed the Sustainable Development Goals.



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Malawi Priorities: Background

Malawi Priorities is a research-based collaborative project implemented by the National Planning Commission (NPC) with technical assistance from the African Institute for Development Policy (AFIDEP), and the Copenhagen Consensus Center (CCC) to identify and promote the most effective interventions that address Malawi's development challenges and support the attainment of its development aspirations. The project seeks to provide the government with a systematic process to help prioritize the most effective policy solutions so as to maximize social, environmental and economic benefits on every kwacha invested. Cost-benefit analysis is the primary analytical tool adopted by the project. Cost-benefit analysis will be applied to 20-30 research questions of national importance. Research will take place over the course of 2020 and 2021.

Research questions were drawn from the NPC's existing research agenda, developed in September 2019 after extensive consultation with academics, think tanks, the private sector and government. This sub-set was then augmented, based on input from NPC, an Academic Advisory Group (AAG) of leading scholars within Malawi, and existing literature, particularly previous cost-benefit analyses conducted by the Copenhagen Consensus Center. The research agenda was validated and prioritized by a Reference Group of 25 prominent, senior stakeholders. The selection of interventions was informed by numerous consultations across the Malawian policy space, and one academic and two sector experts provide peer review on all analyses.

Cost-benefit analyses in Malawi Priorities consider the social, economic and environmental impacts that accrue to all of Malawian society. This represents a wider scope than financial cost-benefit analysis, which considers only the flow of money, or private cost-benefit analysis, which considers the perspective of only one party. All benefit-cost ratios (BCRs) reported within the Malawi Priorities project are comparable.

The cost-benefit analysis considered in the project is premised on an injection of new money available to decision makers, that can be spent on expanding existing programs (e.g. new beneficiaries, additional program features) or implementing new programs. Results should not be interpreted as reflections on past efforts or the benefits of reallocating existing funds.

Inquiries about the research should be directed to Salim Mapila at salim@npc.mw.

