









CASE STUDY

How Evidence Informs Decision-Making:

The scale-up of nutrition actions through an early childhood development platform in Malawi

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SEEMS-Nutrition is a three-year initiative to strengthen evidence of the costs and benefits of multisectoral nutrition strategies. It is led by Project Director Carol Levin from the University of Washington Department of Global Health, with partners including Helen Keller International, IFPRI, and R4D. With new and emerging data coupled with a strong understanding of what evidence decisionmakers need and in what form (including funders, policy-makers, program planners and others), we hope that this work will help generate improved evidence to support decisions on scaling up multisectoral nutrition programs across countries. Read more here.

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Executive summary

Although Malawi has experienced reductions in undernutrition over the past two decades, the country still faces high rates of child stunting (37%) and only 25% of children meet minimum dietary diversity (National Statistical Office, 2017). The Government of Malawi has committed to improve nutrition through a multisectoral approach.

The national early-childhood development (ECD) program in Malawi consists of parenting groups, known as Care Groups, and preschools known as community-based childcare centers (CBCCs). In conjunction with Malawi's commitment to improve nutrition outcomes through multisectoral approaches, there have been efforts to study how nutrition activities can be delivered effectively through CBCCs, Care Groups, and other existing government platforms.

The Nutrition Embedded Evaluation Program Impact Evaluation (NEEP-IE), delivered through the CBCC platform, aimed to improve household production of diverse and nutritious foods and caregiver knowledge on child nutrition and feeding practices. The findings were positive: compared with the control group, preschool children receiving the integrated nutrition and agriculture intervention had greater increases in nutrient intake and dietary diversity from improved household food production and improved caregiver knowledge on feeding practices. While there was no impact on linear growth in preschoolers, there was a reduction in the prevalence of stunting among younger siblings in the treatment group compared to control group, suggesting the intervention improved their nutrition status. The plausibility of this conclusion was supported by seeing multiple effects detected along the program impact pathways.

In late 2018, the Government of Malawi committed to scaling-up nutrition actions delivered through their ECD platform through the "Investing in Early Years for Growth and Productivity in Malawi" program, which is supported by a World Bank investment of \$60 million over the next five years (IDA/GFF). This investment includes activities to support Care Groups and CBCCs to deliver nutrition-specific and nutrition-sensitive activities, early learning activities, and to strengthen multisectoral coordination and capacity across systems.

With strong global attention focused on how to scale-up multisectoral actions in nutrition leveraging existing platforms, this case study looks at the enabling factors that informed and led to the government's decision to scale-up nutrition-sensitive actions through Malawi's ECD platform.

Desk review of core documents alongside key informant interviews shed light on four critical factors:

1. Strong base of evidence on impacts and economic rationale. In addition to generating evidence of impact, NEEP-IE showed that the costs to deliver nutrition actions through CBCCs were lower than expected and affordable as compared to agricultural subsidies. Furthermore, the World Bank estimated that the \$60 million investment would have a positive return on investment where every USD \$1 invested would yield a return of \$2.40 dollars. Having a strong base of evidence generated in Malawi on the impact of nutrition interventions delivered through government-run ECD platforms along with evidence of the economic rationale opened the door for decision-makers to invest in the scale-up of this type of programming.

- 2. Government leadership and multisectoral collaboration at all stages. Government stakeholders were closely involved in all aspects of NEEP-IE intervention delivery and research design. The local, context-specific research was well-received by government in part because it built off foundational research in Malawi that came before it. This enabled strong ownership of the program and its results, positioning it well for scale up. Further, while multi-sectoral programming in Malawi was endorsed at the policy level, there weren't many examples to draw from in terms of practice before NEEP-IE. It was recognized as key in setting an example for multi-sectoral coordination and successful delivery of integrated nutrition programming through the Ministry of Gender, Children, Disability and Social Welfare, Department of Nutrition and HIV/AIDS, and Ministry of Agriculture, Irrigation, and Water Development.
- 3. Strong partnerships between government and implementing organizations. Both NEEP-IE and the planned scale-up of nutrition actions are underpinned by strong partnerships between government and partners on various aspects of design and delivery of the intervention and evidence generation. This included a mix of expertise from international institutions contributing global evidence and local institutions helping to translate technical research for use in policy discussions. These partnerships also created an enabling environment for dissemination and uptake of results that supported buy-in and positioned the program for success.
- 4. Community engagement as a driving force. The community's involvement in NEEP-IE was a key factor of success. Community buy-in and contributions supported both longer-term sustainability of positive effects on child development outcomes (through skills transferred to caregivers and sustained behavior change over time), and lowered cost of delivering the integrated nutrition intervention (given the voluntary time and labor from the community being integral to program delivery, along with food donations). It is important to consider aspects of sustainability of the scale-up investment if much of the success relies on community participation; for example, through consideration of possible community incentive mechanisms embedded within the program.

1. Introduction

1.1. Nutrition context in Malawi

Although Malawi has experienced reductions in undernutrition over the past two decades, the country still faces high rates of child stunting (37%) and only 25% of children meet minimum dietary diversity (National Statistical Office, 2017). According to the 2015-16 DHS, 12% of infants are born with low birth weight and infant and young child feeding practices are not optimal. Anemia rates are also high, at levels of 28% in preschool children and 21% in school-aged children (National Statistical Office, 2017). In addition to experiencing high levels of undernutrition, the country also faces an increase in overnutrition in the form of obesity, overweight, and NCDs (Department of Nutrition, HIV and AIDS, 2018) which remains a growing concern.

Malawi faces various challenges in improving its nutrition landscape, including high population growth, food insecurity and poverty. Half of the country's population lives below the national poverty line, with more than half living in rural areas. Agriculture remains a key sector for the country's overall economic development, but traumatic climatic shocks such as droughts and floods put food production and household food security at risk, increasing levels of hunger and poverty (World Bank, 2018), and therefore malnutrition.

Targeted investments that protect young children from hunger, food insecurity, and poverty is one of the most effective investments in human development (Heckman, 2006) that can not only improve the nutrition of children, but create a long-term impact on the nutrition and development of generations to come. The Government of Malawi has recognized the necessity of adequate nutrition for both human development and growth. Early Childhood Development (ECD) is one of the key strategies in the Malawi Growth and Development Strategy III, and food and nutrition security are key priority areas of the National Agriculture Policy (2016-2021).

1.2. Government platforms for multi-sectoral programming

The government of Malawi has several platforms that deliver nutrition and early learning interventions to its population in need, made possible by local government structures. These include:

- Community-based childcare centers (CBCCs), coordinated by the Ministry of Gender, Children,
 Disability and Social Welfare (MoGCDSW), are preschools that serve children ages 3 to 5 years
 old and provide health and WASH education along with meals. Community participation is
 integral for the operation of CBCCs; parents are expected to contribute food and manual labor
 for the infrastructure and operation of CBCCs (Results for Development, 2016). As of 2018, there
 were approximately 12,000 CBCCs operating in Malawi, covering 45% of the preschool
 population (Results for Development, 2016; Twalibu et al, 2018).
- Community-based Care Groups, also coordinated by MoGCDSW, are groups of 10-15 men and
 women volunteers in a village responsible for delivering nutrition-specific and sensitive
 interventions to 10-15 households, supported by extension workers. They target pregnant and
 lactating women, children ages 0-35 months, and households to provide care, health and
 nutrition-related commodities, and promote several behaviors (World Bank, 2018).
- **Health centers**, coordinated by the Ministry of Health (MoH), provide reproductive, maternal, and child health services including nutrition interventions such as iron and folic acid

- supplementation to pregnant and lactating women and treatment of severe acute malnutrition to children.
- A network of Agriculture Extension Development Officers (AEDO), run by the Ministry of Agriculture, Irrigation, and Water Development (MoAIW), provide agriculture and nutrition training to communities and are often leveraged by different programs to implement nutritionsensitive interventions (Sigman, 2015).

The MoH plays a cross-cutting consultation and collaboration role through the Department of Nutrition, HIV, and AIDS (DNHA) in support of nutrition interventions across these platforms.

1.3. The evolution of research on nutrition-sensitive actions in Malawi

Malawi has a rich history of research on nutrition actions delivered through multi-sectoral approaches that has helped to identify what works along with common bottlenecks to service delivery.

The Protecting Early Childhood and Development (PECD) study evaluated operations of CBCCs in 2011-12, finding key operational and sustainability challenges encountered by the centers (World Bank, 2015). First, they found that CBCCs often struggle to operate regularly—upon verification visits, about half were found not operational, and others reportedly closed either temporarily or permanently for reasons including availability of volunteer caregivers. They also found that CBBCs struggled with a lack of materials and supplies, including lack of food (82% of CBCCs), play materials (59%), and teaching materials (56%) (World Bank, 2015). The PECD trial found that combining preschool teacher training with parenting education was very effective, where children in the intervention arm had significantly higher scores in measures of language and socio-emotional development than children in centers receiving teacher training alone (Özler et al., 2018). This finding influenced the design of other ECD programs in Malawi.

The Hilton Wrap Around Project sought to understand the factors associated with the ability of CBCCs to provide (or not provide) meals in order to derive programmatic recommendations (Save the Children, 2014). They found that sources of food varied, though all CBCCs studied had some community contributions, most had school gardens, and many were provided with food by external organizations. However, CBCCs that mostly relied on external organizations for food were found to be worse-off than others when supplies ran out. Overall, the study found that the biggest barriers to providing meals were food availability and affordability and recommended identifying strategies to promote increased and diversified crop production at the CBCC while also enhancing livelihoods. A major programmatic recommendation was to consider leadership training for caregivers and community leaders, and promotion of skills/knowledge on sustainable agriculture, food processing, and village savings.

Through other studies, behavior-change agricultural interventions and meal preparation trainings were found to be successful interventions for improving food security and children's nutrition status. Implemented from 2009-2014, the Wellness and Agriculture for Life Advancement (WALA) project included several agriculture interventions (demonstration sites, small-scale irrigation, village savings loans groups, watershed treatments, producer/marketing group formation, conservation agriculture) and nutritious meal preparation lessons taught through maternal, child health, and nutrition (MCHN)

¹ There is significant variation across districts where in one district only 10% of CBCCs were operational.

care groups (USAID, 2018). This project resulted in improved food security and nutrition status of children, reducing stunting from 42.4% to 39.3% (USAID, 2014).

Adding to the body of evidence, the World Bank and Canadian International Development Agency funded Support to Nutrition Improvement Component (SNIC) which provided lessons learned on the success of leveraging community Care Groups as an intervention platform for nutrition and ECD activities. SNIC was integrated within the Malawi Nutrition and HIV/AIDS project, delivered from 2012-2018, aiming to strengthen maternal and child nutrition service delivery in communities through the provision of a package of nutrition interventions in targeted districts. Care groups were created to deliver this package through behavior change communication, group and individual education, and home visits. Activities included cooking demonstrations, promoting production and consumption of nutritious foods, and WASH (World Bank, 2019). The coverage of a monthly minimum package of community nutrition services for children exceeded project goals, demonstrating the success of the Care Group approach (World Bank, 2019).

Evidence generated on the successful linkages between nutrition, agriculture, and ECD helped provide strong rationale to continue to test and implement how integrated nutrition and agriculture behavior-change interventions could be delivered together to enhance the diets of children under age seven.

This foundational research influenced the design of the Nutrition Embedded Evaluation Programme (NEEP). Launched in Zomba district, NEEP-IE aimed to improve children's diets and household production of nutritious foods through community-based pre-school meals at CBCCs. It was designed based on learnings from the PECD study and others mentioned above, where the most successful arm of the PECD study was used as the control for NEEP-IE (combining teacher training and parenting education), as described below.

Evaluation of the intervention generated positive and significant results that bolstered momentum for multisectoral nutrition programming in Malawi. This helped lead to the government decision to scale-up the interventions proven to work, supported by a \$60 million investment committed in 2018 through the World Bank's Early Years Project.

2. Approach to develop this case study

This case study looks at a success story in Malawi where funding was secured to scale-up a set of nutrition actions delivered through the government's early-childhood education platform. Specifically, the case study explores the factors that led to the government's decision to scale-up these actions.

A desk review of core policy and research documents was conducted to document key events in the case study including foundational nutrition research in Malawi and the design of NEEP-IE. Alongside the desk review, interviews with key government and development partner stakeholders were conducted to understand the factors that led to the decision to scale-up nutrition-sensitive programming in the country. Annex 1 provides a list of participants in these interviews.

Key themes on how evidence was used to inform decision-making that emerged from the interviews were discussed and reviewed with partners as they emerged and are reported here.

3. The Nutrition Embedded Evaluation Programme Impact Evaluation (NEEP-IE)

3.1. The intervention

In December 2015, the NEEP-IE project—a randomized controlled trial—was rolled out in Zomba district to evaluate nutrition-sensitive interventions delivered across communities, continuing through to August 2016. The control group was comprised of 30 communities that were supported by Save the Children to receive a standard package of ECD interventions. A different set of 30 communities also supported by Save the Children received the integrated intervention described below in addition to the standard ECD package. Figure 1 shows a schematic view of the NEEP-IE study.

The standard ECD package delivered to all

Save the Children supported CBCC caregiver trainings, which were provided by government-approved trainers using standard ECD materials developed by the Government of Malawi. Caregivers of children 0-8 months were also targeted through parenting groups which included sessions 1-2 times a month to discuss child nutrition, stimulation, and school support (Gelli et al, 2017).

The integrated nutrition and agriculture intervention

Figure 1 below shows the nutrition and agriculture household interventions for the 30 communities randomized to receive the intervention. Nutrition interventions were implemented through parenting groups that provided training on meal preparation and provision, and optimal feeding for young children. Agriculture interventions included food production trainings at CBCC gardens, provision of seeds and chicks, and Village Savings and Loans groups to help communities save and access funds to purchase supplies for gardens and CBCC meals (Gelli et al, 2017).

These interventions were delivered through government-run CBCCs with training activities conducted by agricultural extension development officers and community volunteers.

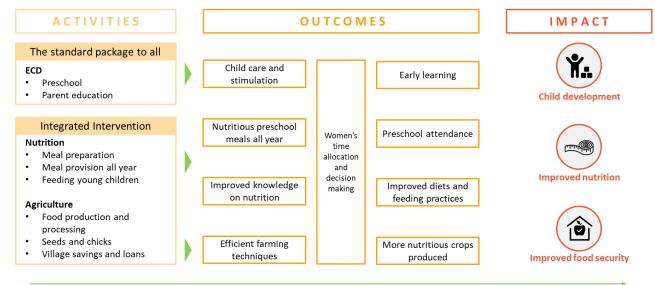


Figure 1: NEEP-IE intervention impact pathway

Complex impact pathways

Source: Adapted from (Gelli, Margolies, Santacroce, Roschnik, et al., 2018)

3.2. Role of the community

From the start, community perspective and input were sought out to inform intervention design and ensure that the interventions were fit for purpose. Community sensitization meetings were used to inform communities and local leaders of the project and to provide a platform for the community to raise questions, concerns, provide feedback, and generate buy-in prior to intervention delivery. Community review meetings continued through the project lifespan to ensure community beneficiaries and local leaders were satisfied with how the program was running.

Throughout the intervention, community engagement was integral to the success of the program, which kept costs relatively low in comparison to other programs given their voluntary time and contributions including food donations; CBCC feeding programs were run by volunteers and provision of mid-morning porridge was a key incentive for child attendance.

3.3. Impact: findings from the evaluation

The NEEP-IE impact evaluation found that the intervention was effective at enhancing production diversity and dietary diversity among treatment households compared to the control group (Gelli, Margolies, Santacroce, Roschnik, et al., 2018).

Findings included:

- (1) **Household food production and diversity improved:** Overall, the quantity and variety of crops produced increased among intervention households compared to the control households, most notably in the production of pigeon peas and orange flesh sweet potatoes (difference in difference (DID) = 4.86; 4.32). On average, intervention households also had 2 more chickens owned and 4 more eggs produced than the control group after the intervention (p<0.05).
- (2) **Caregiver knowledge improved:** Caregivers receiving the intervention demonstrated improved knowledge on foods considered important for growth and energy and CBCCs in the intervention group provided a greater quantity of meals, and more nutritious meals.
- (3) Improved diets among children: Dietary diversity was 0.31 points greater among children in the intervention group, primarily driven by greater intake of nuts, pulses, fruits, and vegetables. Dietary diversity was also higher among younger siblings of preschoolers receiving the intervention, with 39% achieving minimum dietary diversity (MDD) compared with 28% of siblings in the control group achieving MDD.
- (4) **Impact on nutrition status:** While height-for-age z-scores did not improve in preschoolers themselves, these scores did improve in the younger siblings of the preschoolers, concurrent with a reduction in stunting (DID -17 percentage points, p<0.05), implying that the intervention (improved production of nutritious foods and caregiver knowledge) had a positive effect on them as well (Gelli, Margolies, Santacroce, Roschnik, et al., 2018).

Further, in terms of costs to deliver the program, the study found that the integrated intervention was not as expensive as many stakeholders believed. Including all household members that benefited from the intervention, the full economic cost of the program was estimated at US\$40,² viewed as relatively

² Represents full economic costs, including in-kind contributions from Save the Children staff and transport, government extension officers and beneficiary time

inexpensive compared to other more costly programs such as the Farm Input Subsidy Program (IFPRI, forthcoming; Gelli, Margolies, Santacroce, Twalibu, et al., 2018). Notably, a significant portion of costs were voluntary contributions provided by the community in labor and in-kind donations. As explored below, while community contributions may lower costs that would otherwise be incurred by the public sector, the sustainability of this model is an important consideration for scale-up.

3.4. Challenges

Key challenges for this project included selecting the intervention district, attributing success to specific program activities, and communicating findings. Stakeholders noted that several districts were already implementing interventions in the nutrition and agriculture sectors, making district selection difficult. Furthermore, as this intervention included only one district in Malawi, the findings may not be valid in all other contexts, although conditions and age distribution in Zomba district are similar to several other regions (Gelli, Margolies, Santacroce, Roschnik, et al., 2018). Additionally, because the agriculture and nutrition intervention consisted of a package of several different interventions, it is difficult to attribute impact to specific activities, though the analysis of the effects along impact pathways were used to explore results (Gelli, Margolies, Santacroce, Roschnik, et al., 2018). Lastly, stakeholders noted that communicating technical findings from the impact evaluation to high-level policy stakeholders was challenging at times.

4. Scale-up: Investing in the early years in Malawi

In late 2018, the Government of Malawi partnered again with the World Bank on the "Investing in Early Years for Growth and Productivity in Malawi" project through a \$60 million investment (2018-2024)—comprised of grants from the International Development Association and the Global Financing Facility. This project aims to improve ECD service coverage and utilization in selected districts of Malawi, with specific sub-components of nutrition, stimulation, and early learning, impacting children from conception to age 5.

Figure 2 describes the three components of this investment, which is planned to cover 13 of the 28 districts in Malawi. **Component 1** will focus on community-based nutrition and early stimulation interventions delivered through care groups, comprising the majority of the investment (\$26.2 million), including the scale up of the following components: (1) nutrition-specific interventions, (2) early stimulation activities, (3) nutrition and gender-sensitive activities, and (4) capacity building. This component will strengthen the capacity of 3,000 care groups (300 per district).

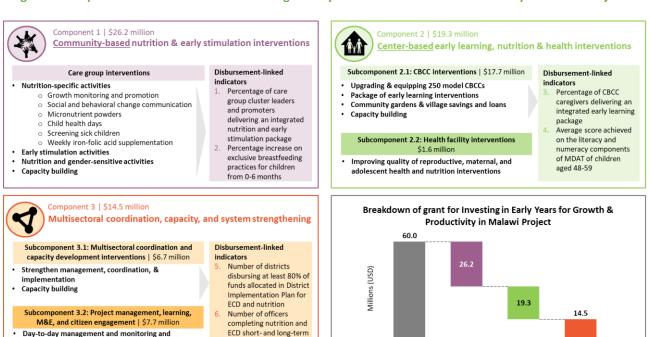
Component 2 (\$19.3 million) will focus on early learning and agriculture interventions delivered by CBCCs and health centers. This component will upgrade a total of 250 model CBCCs (25 per district) for project activities. Upgraded CBCCs will include improved infrastructure and hygiene, early learning programs for children ages 36-39 months by trained instructors, a convening platform for other ECD services, inputs for effective learning (play kits, instructor materials, a resource room, a food preparation kit, gardening tools, and water access points (World Bank, 2018).³

³ CBCCs will be selected based on three criteria developed by the Ministry of Gender: (1) geographic coverage reaching the full district, (2) contains at least 0.5 acres of conflict-free agricultural and, (3) no record of conflict among CBCC management committee members, and (4) written commitment of community contribution from the group village chief and chair of the CBCC management committee.

Finally, **Component 3** will aim to strengthen multi-sectoral coordination, capacity, and systems, measured by the disbursement of funds for ECD and nutrition at district level and the number of district officers trained in ECD and nutrition.

Approximately 21% of funding for this program is contingent on the achievement of performance indicators, called disbursement-linked indicators (DLIs),⁴ meaning that funding is disbursed only if performance is demonstrated (World Bank, 2018). Figure 2 shows the DLIs included in each component.

Figure 2: Components of the World Bank Investing in Early Years for Growth and Productivity in Malawi Project



NOTE: The investment also contains a fourth component: Contingent Emergency Response Component (\$0 USD) which allows for rapid reallocation of project proceeds in the event of a future natural or man-made disaster or crisis that is likely to imminently cause a major adverse impact during the life of the project.

Total

Component 1

Component 2

Component 3

courses

evaluation

Citizen engagement

⁴ Disbursement-linked indicators (DLIs): in World Bank Program-for-Results operations, DLIs are used as incentive mechanisms where financing or loan/credit proceeds are only disbursed after targets of the pre-agreed DLIs are achieved.

Figure 3 shows stakeholders involved in NEEP-IE and Investing in Early Years. The top of the diagram shows the groups involved in implementation of Investing in Early Years, including the MoGCDSW, the sector responsible for the coordination and support of Care Groups and CBCCs and the recipient of World Bank funds. Other key government sectors involved in implementation include the MoAIW through AEDO engagement, and the MoH/DNHA due to growth monitoring in health facilities and their cross-cutting consultation and collaboration role. The bottom half of the figure shows the partners across both NEEP-IE and Investing in Early Years. NEEP-IE was funded by DFID's PATH grant, IFPRI's IMMANA grant, and Save the Children's sponsorship program, with research, technical assistance, and implementation support from Chancellor College, IFPRI, and Save the Children. Investing in Early Years is funded by the World Bank, and research and technical support providers have yet to be determined.

Ministry of Gender, Children, Disability and Social Welfare Care Ministry of Health Groups (DNHA) СВСС Consultation, collaboration, Implementation growth monitoring of Investing in **Early Years AEDOs** Ministry of Agriculture, Irrigation and Water Development NEEP roll out Investing in Early Years scale up Save the World Bank - IDA IFPRI **DFID Funders** Children (funding (through PATH) World Bank - GFF from (through **CGIAR Sponsorship** Research, TA + International/local research institutions program **Chancellor College** Programme) on ANH) implementation

Figure 3: Stakeholders involved in the funding and implementation of NEEP-IE and Investing in Early Years

5. How evidence can drive decision-making

Through discussions with key stakeholders, several themes emerged as enabling factors that helped lead to the decision by the Government of Malawi to scale-up multisectoral nutrition programing. These include 1) having a strong base of evidence on the economic rationale to invest in nutrition-sensitive actions through already established government platforms; 2) strong government leadership and multisectoral collaboration at all stages; 3) strong partnerships between government and implementing organizations; and 4) demonstration of strong community engagement. Each of these factors are described below.

5.1. Strong base of evidence on economic rationale

One of the most influential factors in the government's decision to scale-up multisectoral nutrition programming was the strong economic rationale that helped drive policy discussions.

As mentioned above, NEEP-IE found that delivering nutrition-sensitive actions through the CBCCs was less costly than previously imagined (full economic cost estimated at US\$40 per beneficiary per year if all household beneficiaries are included (IFPRI, forthcoming)). This may be driven by a few factors, including the fact that the CBCC platform is already well-established in Zomba thus has a strong reach to households most in need. Additionally, strong community engagement including the donation of food and caregiver time drove costs incurred by the program down.

Further, economic analyses of the "Investing in the Early Years" scale-up determined that the program would have a strong return on investment. The World Bank estimated that the investment would yield \$2.4 USD in economic return for every \$1 invested in the program (a benefit-cost ratio of 2.4:1), in an optimistic scenario (World Bank, 2018). Even in a less optimistic scenario in which there is lower improvement of nutrition and ECD outcomes, a positive outlook was still envisioned—with a yield of \$1.92 for every \$1 USD invested.

The \$60 million investment was estimated to have massive benefits in terms of nutrition impact and intervention reach in Malawi in the next five years: 47,000 fewer children under 3 will be stunted, 70,000 children ages 3-5 years old will benefit from early learning interventions, and over 30,000 pregnant or lactating adolescent girls will acquire responsive parenting knowledge on nutrition for themselves and their children. Additionally, due to the reduction in stunting and improved early childhood development, there is an estimated wage productivity increase and rate of return to schooling (World Bank, 2018).

The successful program results coupled with the strong economic rationale make a compelling case for investing in multi-sectoral programming for nutrition. Dissemination meetings helped to spread information on the findings, which was supported by key stakeholders communicating regularly with the government to translate the technical research findings into policy-relevant dialogue. Several stakeholder meetings with the government, World Bank, and international partners including IFPRI helped drive planning forward (See Annex 2 for timeline). Discussions between the government and World Bank on the Investing in the Early Years partnership happened over several months and was made official in November 2018.

5.2. Government leadership and multi-sectoral collaboration at all stages

NEEP-IE intervention delivery required strong government leadership and multisectoral collaboration at the national and local level. Multisectoral nutrition programming in Malawi is integrated into government-run platforms across sectors, requiring collaboration between MoGCDSW (which coordinates CBCCs), DNHA (coordinating nutrition policy and programs across sector ministries) and MoAIWD (coordinating the AEDOs providing the trainings). Although multi-sectoral coordination was espoused at the policy level by government, NEEP-IE was key in showing "how" sectors that historically worked in silos could work together to deliver and evaluate an integrated intervention. This was evident in MoGCDSW and DNHA driving policy discussions on program design at the national level, while MoAIWD coordinated implementation through AEDOs who provided trainings on nutrition-sensitive actions to parents and CBCC caregivers at the district level.

Research from NEEP-IE showed that scaling up nutrition actions through the government's ECD platform would help improve nutrition outcomes and improve diets. This local, context-specific research was well-received by government in part because it built off foundational research in Malawi that came before it and by the role that Government played in shaping the NEEP-IE study itself. Further, government actors were advocates for using strong data and evidence to drive policy, and their leadership throughout the research design, implementation and M&E progress tracking positioned them to truly "own" the results. A consultative process both at national and local levels—e.g. through inception meetings in Lilongwe and local community forums to monitor implementation progress—gained buy-in for the work. This model was different from a common experience in other contexts where researchers "parachute" in and out to conduct an RCT where findings may not have the backing to influence local policy or programming.

Since time and effort was invested upfront to build trust with the government, it enabled results to go forward and be used to inform future programming. This dialogue may have slowed activities down initially, however, it provided a foundation for the policy and programme changes that followed and were key in the discussions of the Investing in the Early Years program.

5.3. Strong partnerships between government and implementing partners

The stakeholder map in Figure 3 shows that NEEP-IE and the new Early Years investment involve collaboration between the government, local implementing partners, and international partners to help provide technical assistance.

Contributions of local implementing partners and research institutes: Save the Children Malawi was integral to NEEP-IE's implementation. They supported CBCCs with a standard package of ECD materials and the startup agriculture package, provided trainings, and enabled ownership and use of results to position NEEP-IE for scale up. They also served as an intermediary across the agriculture and nutrition sectors, hosting joint events and providing data from these two different angles, strengthening coordination between the ministries. Save the Children's convening power to bring this group together and as a reputed ECD implementer was recognized as enabling buy-in and stakeholder backing for scale up.

Moreover, research expertise from Chancellor College was helpful in tailoring and interpreting results to the Malawi context, and contributed to the trust generation and ownership from the government. Further, wide dissemination of results, successes and learning occurred at multiple points and provided

a platform for open discussion between several multi-sectoral stakeholders. Chancellor College in collaboration with IFPRI made presentations on the results to the Government, providing practical proposals for integrating recommended practices emanating from the research to improve provision of nutrition related services at CBCCs in Malawi—helping to support discussions on the Early Years investment. Chancellor College also offered technical support to Save the Children on trainings in agriculture production and nutrition. The College designed and facilitated the trainings.

Contributions of international partners: technical assistance and rigorous research methods provided by international researchers at IFPRI brought global best practice to Malawi and opportunity for capacity-building to local research institutions including Chancellor College. Chancellor College contributed data collection enumerators and inputs into design of the study and baseline survey. Chancellor College also provided technical advice on the practical implementation of the study based on experience in data collection and project design in nutrition related research. In addition, this provided an opportunity for application of previous research findings on utilization of locally available food crop resources such as local orange maize in improving nutrition in the home and at CBCC levels.

5.4. Community engagement as a driving force

In many ways, local communities have a stronger sense of multisectoral programming than the highest level of government planners, where mothers have a view of the different services her children receive (or do not receive) from each sector. Engaging with communities to discuss service delivery can elicit critical insights on the successes and failures of multisectoral programming (Clift, Poirrier, & Tolmie, 2018).

NEEP-IE had a strong element of community engagement built into its design, which in part helped lead to its success and elements of it taken up in the new multi-year early years investment. Community sensitization and engagement meetings were used to gather input and ensure buy-in from the community.

NEEP-IE success was situated in the community and their close involvement in uptake. The intervention relied heavily on inputs provided by the community—CBCCs are run by volunteer caregivers who are internally motivated, and food donations contributed by community members. As mentioned earlier, this was notable in bringing down the delivery costs given the voluntary time and labor contributions from community members, which reflected their buy-in to the program and was recognized as a key success factor. Moreover, the "home-grown" nature of the intervention was important in ensuring continuity and longer-term sustainability through skills transferred to caregivers. These were also felt through ripple effects to other household members with the likelihood of sustained behavior change once the intervention ended.

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Annex 1: Stakeholders interviewed and consulted

Institution	Name	Position
Ministry of Gender, Children,	McKnight Kalanda	Director of Child Affairs
Disability and Social Welfare		
Department of Nutrition, HIV & AIDS	Blessings Muwalo	Deputy Director
Ministry of Agriculture, Irrigation and	Matthews Mambo	District Nutrition Officer
Water Development		
World Bank	Toni Lee Kuguru	Consultant
	Blessings Botha	Agricultural Economist
Save the Children	Natalie Roschnik	Technical Advisor for School Health and Nutrition
	Helen Moestue	Advisor for School Health and Nutrition
	Peter Phiri	ECD Manager
	Aisha Twalibu	NEEP-IE research coordinator
IFPRI	Aulo Gelli	Research Fellow
Chancellor College	Dr. Mangani Katundu	Dean of Research and Associate Professor of Food
		and Nutrition Security

Annex 2: Timeline

