

NEEP INFORMATION BRIEF NO. 5

Agriculture and Child Nutrition

Exploring connections through programme evaluations

The Nutrition Embedding Evaluation Programme (NEEP) is a four-year project led by PATH and funded by the United Kingdom Department for International Development, concluding in 2017. NEEP was designed to build the evidence base for what works in improving nutrition by conducting credible, robust evaluations of innovative interventions implemented by civil society organisations.

NEEP interventions fall under one or more thematic areas: 1) agriculture (5 grantees); 2) cost-effectiveness analysis (4); 3) early childhood development (5); 4) infant and young child feeding (10); 5) micronutrients (6); 6) water, sanitation and hygiene (5); 7) women's empowerment (8); and 8) e-learning (1). This brief is focused on agriculture, and how these approaches can be leveraged to improve child nutrition.

RURAL FOOD INSECURITY AND UNDERNUTRITION

Many of the world's poor live in rural areas, and often their livelihoods depend on farming and agriculture. When the right crops are grown and yield is high, farmers are able to feed their families and sell the surplus. However, when the opposite is true, the risk of food insecurity, poverty and malnutrition escalates.^{1,2} Because of increases in political instability, environmental degradation and fluctuating economies, rural populations more frequently struggle to maintain their livelihoods to feed and support their families.

Although agricultural interventions have gained traction in rural development and global health programming, their impact on child nutrition outcomes remains unclear. Prior to selecting grantees for the Nutrition Embedding Evaluation Programme (NEEP), PATH conducted a gap analysis on maternal and child nutrition interventions, which highlighted a limited evidence base of agriculture programmes that have a nutrition component.³ Therefore, PATH selected a group of NEEP grantees that would cover this knowledge gap.

HOMESTEAD FOOD PRODUCTION IN SOUTH ASIA

Helen Keller International (HKI) pioneered what is known as the Homestead Food Production (HFP) approach in Asia, which is now being expanded to sub-Saharan Africa. HFP interventions generally combine home gardening, raising poultry, aquaculture (fish farming) and nutrition education or behaviour change components into one holistic programme for pregnant women or women with young children. Under NEEP, HKI is evaluating three separate programmes—two in Bangladesh and one in Indonesia.

The Food and Agriculture Approaches to Reducing Malnutrition (FAARM) programme aims to improve household food security, dietary diversity of women and young children and child feeding practices in northeast Bangladesh by working with young married women through farmers' groups. This unique approach aims to reach women who are likely to get pregnant in hopes of maximising the potential impact on children during the critical window of the first 1,000 days.



PATH/Evelyn Hockstein.

FAARM's evaluation will measure its effect on stunting, wasting, micronutrient status and diarrhoea prevalence in young children, as well as underweight and micronutrient deficiencies in their mothers. Under this evaluation, NEEP is supporting a surveillance system to examine the programme's main pathways for impact (diet and health), as well as any early impacts on child size at birth.

Also in Bangladesh, HKI started Making Markets Work for Women (M²W²), which works slightly differently from the standard HFP model by focusing primarily on income generation potential and economic empowerment of project beneficiaries who have been identified as “extremely poor”. The M²W² evaluation aims to uncover potential pathways to reducing child undernutrition and improving health in participating communities—demystifying the intervention and its processes. The nutritional benefits of direct consumption from household gardens will be measured, but are considered secondary to the programme’s impact on household poverty—assessed through dietary diversity, income and child stunting.

In Indonesia, where HKI has been implementing an HFP project since 2012, HKI added training on collective marketing for a subset of participants who had received nutrition and agricultural training and start-up inputs as part of the HFP project. Designed as a cluster randomised trial, HKI trained households in the intervention group on how to sell produce from their home gardens as a collective, aiming to reduce the opportunity costs associated with individual sales and leverage a higher sale price. In their evaluation, HKI is assessing any difference in income generation amongst households that participated in the intervention group as compared to households in a control group that were not trained to collectivise themselves for sales purposes. In addition, HKI will assess if increased profits from sales is associated with improved household nutritional practices.

COMMUNITY-BASED CHILDCARE CENTRES IN MALAWI

Community-based childcare centres (CBCCs) aim to promote holistic child development by providing safe, stimulating environments for children, access to health and nutrition services and capacity building for parents and caregivers. In Malawi, Save the Children works in these centres to provide early childhood development (ECD) interventions with additional nutrition, agriculture and livelihoods components to improve nutrition and health outcomes in households with infants and young children. Some of the strategies they have implemented include promoting optimal feeding and care practices with parenting groups, engaging parents and caregivers in the planning and preparation of meals for children in the CBCCs and using CBCC gardens as a learning site for communities to practice agricultural production and dietary diversification.

Similar to the HKI-Indonesia approach, Save the Children’s evaluation will assess the additional impact of a nutrition and agriculture intervention in these childcare centres. It compares the impact of the CBCC ECD intervention with nutrition and agricultural components (experimental group)

to the impact of the CBCC ECD intervention alone (control group). They expect the full intervention will have a positive effect on CBCC enrolment and attendance, household dietary diversity, micronutrient status and agricultural production and marketed surplus. Save the Children is also evaluating CBCC impact on health and hygiene practices and women’s asset ownership, time use and productivity.

CONCLUSION

NEEP grantees are testing novel approaches to reducing childhood malnutrition and disease. Although the final evaluation results are still being analysed, NEEP has successfully begun to fill in the evidence gaps related to agriculture and child nutrition outcomes. The grantees have already demonstrated that agricultural interventions can work through both direct and indirect pathways to improve nutrition and health outcomes in rural households and communities. PATH will continue to support these programmes, providing technical assistance throughout the evidence dissemination process to ensure maximum uptake and optimal health outcomes for women and children throughout the developing world.

REFERENCES

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