Ethiopia
2004–2009

LARGE-SCALE PROGRAMS AIMED AT REDUCING MALNUTRITION THROUGH A CROSS-SECTOR APPROACH INCLUDING WASH

Comparison of Multiple Community-Based Intervention Models to Reduce Stunting in a Food-Insecure Area

Context

The Legambo Child Caring Practices (CCP) project was carried out by Save the Children (SAVE) UK to measure the effectiveness of different interventions on stunting among children 6–36 months in a food insecure area of South Wollo Zone, Amhara Region, Ethiopia. Eleven neighboring villages were purposely selected to receive one of four intervention emphases: health, nutrition education, WASH, or all three interventions combined (integrated design). WASH villages in particular were selected because of high need and demand in those areas for improved facilities. The operations research also included three neighboring control villages. Funding was provided by DFID (year 1) and Irish Aid (years 2–5).

Activities/Channels

During the project period all of the villages (including the controls) benefitted from a number of ongoing and newly inaugurated government programs. These included a Productive Safety Net Programme (PSNP) for food insecure households (cash or grain transfer); a community-based health-care delivery system supported in rural areas by recently recruited and trained health extension workers; and emergency support during periods of crises including a general ration and supplementary and therapeutic feeding for malnourished children.

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CCP helped construct clean water sources.

SAVE trained community animators to deliver educational messages to homes in all four intervention areas. Families in the health and integrated groups received visits ten days out of every month; those in the nutrition and WASH groups were visited five days every month and also participated in a further five days of center-based education sessions. Target beneficiaries included pregnant women and mothers with children under age three who were included in the PSNP program. In the villages with a nutrition focus, messages covered nutrition during pregnancy and lactation, infant and young child feeding, food diversity and frequency, prevention and treatment of diarrhea, and immunization. SAVE also constructed demonstration community gardens in these villages. In villages with a health focus, SAVE provided free essential drugs and micronutrients for mothers and children under five as well as health education on vaccination, family planning, antenatal care, safe delivery, and common childhood illnesses and treatment. In the villages with a WASH emphasis, messages emphasized both personal and environmental hygiene (hand washing with soap,

cleanliness of the house and construction of separate housing for animals, and keeping water clean). The project assisted with materials such as pit latrines and construction of clean water sources.

Results

The study was designed to measure a primary outcome (stunting among children aged 6–36 months) and secondary outcomes (knowledge of appropriate prevention and care-seeking practices and improved infant and young child feeding practices). The WASH group was the only one to show a significant association between intervention activities and reduced stunting—with a decrease of 10.1 percentage points in the prevalence of stunting compared with the baseline. This group also showed significant improvements in mothers' knowledge of correct hygiene practices, as well as in the practices themselves. The WASH group also showed the biggest and most significant increase in coverage of measles vaccination.

All of the groups showed significant improvements in knowledge of the causes of diarrhea. The nutrition and integrated groups had the largest improvements in both breastfeeding knowledge and practices and knowledge of complementary feeding. Interestingly, there was a significant improvement in access to safe water only in the integrated group—not in the WASH group—despite program investment in water and sanitation in that area.

Evaluators urged caution in the interpretation of results, noting the difficulty of evaluating integrated programs. All but the WASH interventions were underpowered; sample sizes were likely too small to detect medium-term effects in stunting. Lack of randomization may also have been an issue. In addition, the evaluators pointed out operational challenges that may have influenced results:

- At the start of the project, wasting prevalence exceeded the critical cut-off (15 percent) in all areas, suggesting food security was already an issue. Moreover, the PSNP was delayed for three months on average over the life of the project, so was probably ineffective as a means of addressing food insecurity. The lack of change in stunting prevalence through nutrition counseling was to be expected. (Nutrition counseling alone has been shown to be ineffective without resources to purchase food.)

- There was contamination between the intervention and nonintervention groups, because the government's health extension workers were active in all areas and were spreading essentially the same nutrition and health messages being given by the CCP project.

- The integrated group received a very large number of messages. Animators may have been overburdened (resulting in poorer quality delivery) and/or communities may have been overloaded with information.

- The WASH group benefited from having the same dynamic community leader throughout the project; all other groups experienced a change in leadership. A stronger sense of local ownership may have deepened community involvement.

Lessons

Both operational challenges and problems connected to the internal validity of complicated interventions can confound results; evaluations of such complicated programs require careful analysis and skeptical weighing of implications. The evaluators of this program speculated that strong community mobilization (not present in other areas) and promotion of hand washing practices (as opposed to hardware inputs) influenced nutrition-related results in the WASH arm. Chronic food insecurity undermined any potential benefits from improved knowledge and attitudes around complementary feeding and dietary diversity in the area. Given the high incidence of wasting, the nutrition intervention could have been adapted as more evidence (e.g., lack of food resources) came to light.

Resources

An evaluation of an operations research project to rerduce childhood stunting in a food-insecure area in Ethiopia. 2012. http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=8680722

Impact evaluation in field settings: experience from a complex NGO programme in Ethiopia. 2012. http://econpapers.repec.org/article/tafjdevef/v_3a4_3ay_3a2012_3ai_3a4_3ap_3a566-577.htm

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