INTERNATIONAL FOOD
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TIMING IS EVERYTHING

Preventing Child Undernutrition

Nutritionists and food assistance providers have long been aware that child undernutrition has damaging effects that can last a lifetime. In spite of the considerable attention and resources that have poured into addressing this challenge, child undernutrition rates remain high in many countries. Food-assisted maternal and child health and nutrition programs usually work by identifying children under five years of age who are underweight and targeting interventions toward them. The U.S. Agency for International Development (USAID) allocates considerable resources every year to these programs; yet evidence of their contribution in reducing child undernutrition is weak. New evidence suggests that relatively small changes in how these programs are targeted and implemented can greatly increase their effectiveness at reducing child undernutrition.

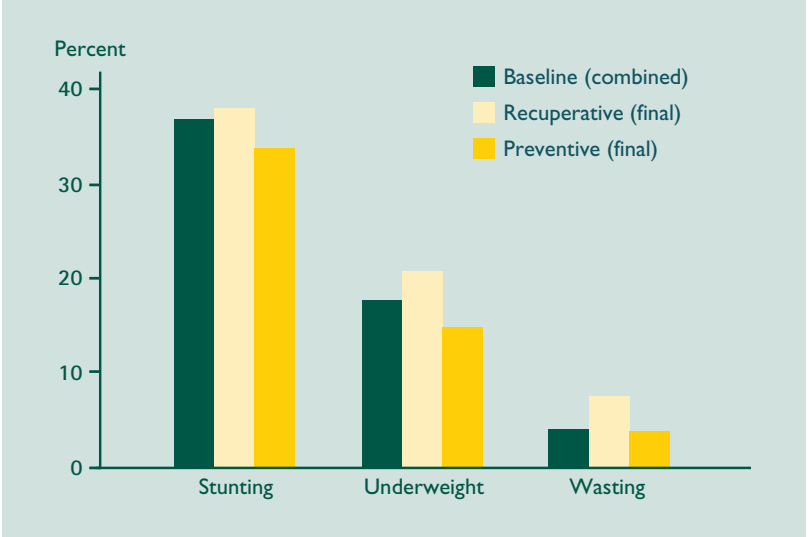
The International Food Policy Research Institute (IFPRI) and Cornell University, in conjunction with World Vision–Haiti and the USAID's Food and Nutrition Technical Assistance (FANTA) project of the Academy for Educational Development, conducted a study that compared two methods of targeting and delivering food-assisted maternal and child health and nutrition programs to poor rural communities in Haiti.

COMPARING TWO FOOD-ASSISTED MATERNAL AND CHILD HEALTH AND NUTRITION PROGRAMS

The first program used a recuperative approach following the standard World Vision approach. It provided nine months of food and other health and nutrition assistance to children six months to five years of age who were identified as underweight through the program's regular growth-monitoring activities. The second, preventive approach targeted all children 6–24 months of age with similar food and health and nutrition services until they reached the age of 24 months. The rationale was to intervene before children became undernourished and thus prevent undernutrition rather than try to reverse it after much of the damage had been done. The preventive model also had a recuperative component that offered assistance and benefits to children from two to five years of age who were severely malnourished. Both approaches targeted pregnant women and breastfeeding mothers as well.

Researchers conducted surveys in the participating communities at the beginning of the study and again exactly three years later. The results showed that the prevalence of undernutrition was lower in communities receiving the preventive program than in those that received the recuperative program. After three years, the prevalence of stunting (low height-for-age) was 4 percentage points lower in the preventive than in the recuperative communities; underweight (low weight-for-age) was 6 percentage points lower; and wasting (low weight-for-height) was 4 percentage points lower (see Figure 1). These substantial differences between the groups provide concrete evidence that

Figure 1—Prevalence of stunting, underweight, and wasting at baseline and final survey for two programs



preventing infants and young children from becoming undernourished is much more effective than treating children who are already moderately malnourished.

Could other factors account for the differences in results between the two programs? It is unlikely. The recuperative and preventive programs offered exactly the same range of services for pregnant and breastfeeding women and the same monthly food ration for infants and children participating in the program. Other services such as growth monitoring, immunization, and vitamin supplementation were also the same in both programs. A behavior change and communication strategy, which emphasized health and nutrition education, was an important component of both programs.

The only aspects that differed between the two program approaches were the criteria for participants' eligibility (age in the preventive program and being underweight in the recuperative program); the duration of the assistance and interventions (up to 18 months in the preventive program to cover the entire 6- to 24-month age period of greatest vulnerability to malnutrition, and 9 months in the recuperative program); and some elements of the behavior change and communication strategy. In the preventive program, for example, a precise schedule was established to ensure that the messages focused on preventing undernutrition at a specific age and reached mothers or other caregivers when they most needed it. With the recuperative approach, learning sessions addressed topics of relevance for undernourished children, including causes of undernutrition, feeding the undernourished child, and hygiene issues.

CONCLUSIONS AND IMPLICATIONS FOR FOOD-ASSISTED MATERNAL AND CHILD HEALTH AND NUTRITION PROGRAMS

The results of the study confirm that because the prenatal period and the first two years of life are the critical period for a child's physical and cognitive development, undernutrition must be addressed within that window of time. Moreover, the study shows that interventions that aim at preventing undernutrition can be much more effective than those that target children once they have become undernourished. Nutrition interventions must therefore be targeted to pregnant women and children during their first two years to prevent the irreparable, lifelong harm that results from early childhood undernutrition.

Based on the research findings, World Vision and other nongovernmental organizations (NGOs) are beginning to target their food assistance and maternal and child health and nutrition programs to all children under two years of age in poor communities in Haiti and elsewhere.

Although this research was conducted in rural Haiti, the findings are generalizable to other poor communities around the world, especially since children's patterns of growth (and growth failure) and development are similar no matter where they live. The study provides concrete evidence that preventive programs can be highly successful in combating child undernutrition on the ground, in real-life situations.

For Further Reading

M. T. Ruel, P. Menon, J.-P. Habicht, C. Loechl, G. Bergeron, G. Pelto, M. Arimond, J. Maluccio, L. Michaud, and B. Hankebo, Age-based preventive targeting of food assistance and behaviour change communication for reduction of childhood undernutrition in Haiti: A cluster randomised trial, *The Lancet* 371 (February 16, 2008): 588–95.

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INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE **www.ifpri.org**

2033 K Street, NW • Washington, DC 20006-1002 • USA • T +1.202.862.5600 • Skype: ifprihomeoffice • F +1.202.467.4439 • ifpri@cgiar.org

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