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More Than Food Is Needed to Achieve Good Nutrition by 2020

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A primary focus of the IFPRI 2020 Vision initiative is to find ways for people to attain food security, that is, sufficient food to lead healthy and productive lives. But what is "sufficient"? And is providing access to food the primary means of protecting people (particularly women and children) against malnutrition, which now faces millions of people around the world?

Improving Food Access Is Not Enough

Recent evidence indicates that improvements in household food security, as measured by adequate calories, do not necessarily translate into improvements in the nutritional status of women and children. An analysis of national trends in food consumption and the nutritional status of people in developing countries over the past two decades suggests that, while there has been some improvement in achieving greater household food security, this has not resulted in comparable reductions in child malnutrition. According to data compiled by the United Nations Administrative Committee on Coordination--Sub-Committee on Nutrition (ACC/SCN), the number of households that are food insecure decreased globally by about 200 million between the periods 1974-76 and 1988-90. At the same time, however, the number of malnourished children actually increased by 16 million. The probability of becoming malnourished has declined for children born today, compared with those born in the 1970s (except in Sub-Saharan Africa). Nevertheless, the absolute number of children born each year is increasing, and therefore the number of children at risk of malnutrition continues to rise.

Earlier research at the household level by the International Food Policy Research Institute suggests that, as income and food availability increase, hunger may decrease, but not necessarily malnutrition. One reason for persistent malnutrition may lie in the complex interaction between food supply and illness, which is influenced by the overall health environment. This is often called the "leaking bucket effect," wherein improvements in access to the foods that are important for good nutritional status may be offset by poor access to nonfood inputs, such as quality health care facilities and services, education, sanitation, and clean water or ineffective mechanisms for delivering these services. If this is so, greater emphasis should be placed on improving access to these nonfood inputs in order to achieve the 2020 Vision.

In nutrition research, the synergy between food consumption and disease has long been recognized. If either the quantity or quality of food consumed is inadequate, the human body is deprived of nutrients that help protect it against disease-producing organisms, to which young children are especially vulnerable. This synergy also works in reverse. Increased exposure to disease pathogens can render people more vulnerable to nutrient deficiencies: for example, diseases may suppress the appetite or parasites may rob the body of nutrients. Water and sanitation interventions have been shown to reduce the severity of child illness, particularly of

diarrheal disease, ascariasis, and schistosomiasis. In highly contaminated environments, sanitation and safe water supplies complement each other in producing improved health outcomes. The economic importance of this synergism and its significance in policymaking have not been fully explored.

The Relationship Between Diet and Disease

A recent IFPRI study looks at the roles played by diet and disease in child nutrition and the choices that families face in allocating scarce resources to food and nonfood inputs. Household surveys of eight countries (Bangladesh, Ethiopia, Ghana, Guatemala, Kenya, Pakistan, the Philippines, and Zambia) indicate that the extent to which increased food security results in improved child nutrition varies greatly by location. In some cases, no improvement was found. In others, improvement was substantial. Ultimately, how well the markets for nonfood goods and services operate, so that households can readily obtain them and therefore allocate their resources efficiently, is a determining factor.

More detailed analyses of the relationship between diet and disease, conducted in Ethiopia, Pakistan, and the Philippines, examine the effects of diarrhea and food insecurity on nutrition. The study confirms that although access to food is the primary determinant of good nutrition, repeated exposure to illness reduces a person's ability to absorb the nutrients in the food that is consumed. An important new finding of the study is that an increase in childhood diarrhea is far more detrimental to nutrition when household food supplies are inadequate. When the incidence of illness is high and household food security is deteriorating, the cost to nutritional status is great. Clearly, when access to both food and nonfood inputs such as clean water, good sanitation, or health care are poor, the synergistic effects of diet and disease are magnified (Figure 1). In the Philippines, children whose calorie intakes were low were more likely to be underweight if the incidence of diarrhea was high than if it was low. Where calorie intakes were high, however, the children with frequent diarrhea were no more likely to be underweight than children who seldom had diarrhea. But in Ethiopia and Pakistan, differences were more pronounced. Children who suffered frequent bouts of diarrhea were much more likely to be underweight, especially if diets were inadequate.

Implications for Policies and Programs

The results suggest that, to improve household food and nutrition security, policymakers should be aware of and minimize trade-offs in household access to food and nonfood inputs. Food programs are likely to have a large impact only when public investment in reducing illnesses is a high priority. Effective nutrition security programs require multisectoral approaches and should take full account of social, economic, cultural, and ecological constraints at the local level. Policies and programs should reflect a particular concern for population groups often excluded from social investment programs. In planning these social investment programs, the synergistic effects of multiple food and nonfood interventions on vulnerable population groups should be exploited. Long-term sustainability of social investments (in health and sanitary infrastructure and safe water supplies) should be assured by investing in the local and community-based capacity for self-determination and self-help. Institutional decentralization contributes to the formation of

inclusive partnerships between the public sector, nongovernmental organizations, and grassroots groups.

Issues That Require Priority Attention

The implications for practical approaches and solutions were explored in a workshop held at IFPRI in April 1995. Workshop participants identified key questions that need to be addressed:

- Why have past multisectoral programs generally failed, and what lessons can be learned from successful ones?
- Why have rural markets for basic services been slow to develop, and what are the constraints? Does an expanding private sector improve access to nonfood nutrition inputs for the poor?
- How can marginalized population groups, such as women, have improved access to food and nonfood inputs? How can a reduction in the trade-offs due to resource constraints be minimized?

To answer these questions, conceptual, analytical, and policy work on the many facets of food and nonfood interactions should be expanded.

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"A 2020 Vision for Food, Agriculture, and the Environment" is an initiative of the International Food Policy Research Institute (IFPRI) to develop a shared vision and consensus for action on how to meet future world food needs while reducing poverty and protecting the environment. Through the 2020 Vision initiative, IFPRI is bringing together divergent schools of thought on these issues, generating research, and identifying recommendations. The *2020 Briefs* present information on various aspects of the issues.