

Providing nutrition effectively: A continuing challenge

by Alice Clark

In the last few years the U.S. Department of Agriculture's Food and Nutrition Service has begun to place greater emphasis on evaluating the nutritional results of food assistance programs. This emphasis can be expected to increase in the future as concern over reducing federal spending leads to concern over providing more effective nutrition for the poor without greatly enlarging expenditures. Food stamps, for example, have since the inception of that program intertwined the goals of income assistance and feeding; in the future the program may concentrate less on income supplementation (by reducing the eligibility limits) and more on nutritional benefits through education and perhaps by restricting choices of foods. Two smaller programs, School Feeding (lunch and breakfast) and the Special Supplemental Food Program for Women, Infants, and Children (WIC), have been directed more specifically toward improving the nutritional status of mothers and children. A new Institute Special Report (see box) examines these three programs for the purpose of understanding better how a range of nutritional objectives might be incorporated into the government's food assistance efforts.¹ The 1980s may prove to be, the report states in its opening, "the decade for the emergence of a national food and nutrition policy."

The number of people served by the three programs has been large, and the majority have been the poor and their children. In 1979, the Food Stamp program assisted 16 million people; 25 million schoolchildren were served by the School Lunch program; 3 million ate school breakfast; and nearly 1.5 million pregnant women, nursing mothers, infants, and small children received supplemental foods and health services through WIC.

The new administration proposals call for trimming the Food Stamp program by lowering eligibility limits from a maximum of 167 percent of the poverty lines to 130 percent. Eligibility for free and reduced-price school meals would stay the same as before—a maximum of 125 percent and 195 percent of poverty levels respectively—but federal subsidies to schools for full-price meals would be reduced or eliminated, raising their purchase price. The WIC program, for which eligibility is income up to 195 percent of poverty levels, may be indirectly affected by the proposed curtailment of the Maternal and Child Health program, since WIC centers are tied to the availability of health care providers.

Changing goals of food programs

Food assistance programs were enacted at different times and for different reasons. One of the earliest, the Commodity Surplus program, was intended as much to help farmers by redistributing agricultural surplus as to feed the hungry. By the 1960s, concern over hunger and poverty had gained national attention and led to passage of the Food Stamp Act of 1964. The issue of malnutrition in an overfed land gained attention after the fact of actual hunger in America had been publicly uncovered in the 1960s. Though the words "nutrition" and "nutritious" were in the earliest legislation for several programs, including National School Lunch (1946), and though the Food Stamp program included the goal of raising the levels of nutrition among low-income households, a scientifically precise nutritional focus was not yet really a major emphasis for these programs. Their basic assumption was that more food equaled more nutrition.

The existence of malnutrition as well as hunger became clearer during the late 1960s and early 1970s as nutrition researchers conducted a number of surveys of parts of the U.S. population. The Ten State Nutrition Survey (1968-1972) and the First Health and Nutrition Examination Survey (1971-1974) are the most important. Researchers learned that particularly serious effects of malnutrition

Institute Special Report

SR 28 *Nutrition Program Options for Maternal and Child Health* by Barry M. Popkin, John Akin, Pamela Haines, Maurice MacDonald, and Deborah Spicer.

Other publications

Maurice MacDonald, *Food, Stamps, and Income Maintenance*. Institute for Research on Poverty Policy Analysis Series. New York: Academic Press, 1977.

Barry Popkin, "Economic Benefits from the Elimination of Hunger in America." Institute for Research on Poverty Reprint no. 126.

are found in children, and that their most prevalent problems are poor nutrition in iron and vitamins A and C, poor growth, and both underweight and obesity.

The major emphasis of the USDA programs began to shift in the 1970s from simply increasing household budgets or offering lunch to schoolchildren in general, to providing children with an adequate diet. This changing focus coincided with the increased concern being directed toward the wider issue of maintaining and improving national health. The WIC program came into being in this climate. Enacted in 1972, the Special Supplemental Food Program for Women, Infants, and Children was the first that specifically sought to supplement the diets of low-income clients with selected nutrients by supplying the special needs of pregnant and lactating women, infants, and preschool children. Among the usual WIC supplements, fortified cereals provide iron; fruit juices contribute vitamin C; milk, cheese, and eggs add needed extra calcium and protein to the diets of low-income, nutritionally at-risk clients.

Evaluating nutrition programs

WIC provided a testing ground for the emerging practice of evaluating programs, since its authorizing legislation included requirements for assessment of program benefits. Though it is one of the smallest programs, in terms of nutritional impact it has been found to be highly beneficial, for example in improving pregnancy outcomes and in overcoming anemia and growth deficiencies in small children. A carefully controlled study of Massachusetts health centers showed that participation by pregnant women reduced significantly the proportion of low birth weights.²

Presumably, school meals take over where WIC leaves off in providing one or two highly nutritious meals to children who might not get them otherwise. How nutritious are school meals? How can we ensure that children actually obtain the necessary nutrients? Providing good nutrition is a more sophisticated proposition than was imagined in the old commodity surplus days. In a review of the school feeding programs, the report shows that even menus prepared according to a particular meal formula that specifies portions from the four basic food groups often fail upon analysis to provide the intended one-third of the Recommended Daily Allowance of major nutrients. The report cites a study in which sample meals were collected from 300 schools, were homogenized and then frozen for several days, and were then analyzed for all nutrients except vitamin C. One-fifth to one-third of the schools failed to serve even a quarter of the requirements for several nutrients. That finding covers only the issue of nutrients served; food waste also occurs as children throw out portions of their lunches. A large-sample study analyzed proportions of food wasted and found that children were underconsuming particularly iron and thiamin and that 50

percent of raw vegetables were wasted. Research continues on ways both to provide sufficient nutrition and to have it accepted.

As nutritional science develops and as what is known about human requirements changes, however, both evaluation and education grow more complicated than before. Nutritional evaluation of the WIC program is more thorough than for school meals. Closer evaluation is possible because of the biochemical and dietary data which the WIC program itself routinely collects on every client, whereas comparable information for assessing the nutritional impact of the other programs is more difficult to obtain. What current research does make possible for schools is an increased level of precision in supplying needed nutrients. A nutrient meal standard specifies those nutrients most likely to be lacking and most needing to be maintained at standard levels—thiamin, iron, vitamin A, zinc—and those that need to be limited to standard levels—fat, cholesterol, sodium. The standard enables schools to supply nutrition more effectively. This is very important; as the authors of the Special Report contend, the school meals programs can both improve the nutrition of children and increase their ability to learn and to benefit from schooling. If expanded, the School Breakfast program in particular would show a high degree of cost-effectiveness.

In the case of food stamps, the report describes studies indicating that participants purchase more and better quality food than do comparable nonparticipants, but notes that it is difficult to determine whether this results in better nutrient intake. The Food and Nutrition Service is now sponsoring studies and demonstration projects to obtain better information concerning the effect of food stamps on nutrition.

Nutrition and human capital

While the humane goal of feeding the hungry has had much to do with the expansion of feeding programs over the last two decades, other considerations have more recently been incorporated into the issue. While national awareness has been increasing regarding the role of nutrition in health promotion and disease prevention, there has been a corresponding theoretical broadening of the human capital approach to social service policy. Hungry children cannot be expected to perform well in school; malnourished children do not grow as strong or enjoy good health as consistently as well-nourished ones. These effects ultimately decrease the nation's stock of productive human capital. Such children when they grow up are more likely to need continuing welfare and social service expenditures than are well-nourished and well-educated children. Therefore, the authors of the report argue, it is cheaper to feed needy children than it is to pay the later social costs and to absorb the productivity loss from not feeding them.

Policy options and projections

In the current political climate, what can we expect to see happening to programs providing food for children? What might happen under alternative plans?

To deal with the second question first, if times were different we might see an expansion of all the feeding programs, because there are thousands eligible for each of them who are not currently being served. Pursuing the policy goal of raising the nutritional level of the nation's children to a certain standard, we could greatly expand the WIC program and the School Breakfast program in particular. But with budget cutting, these expansions seem unlikely. Or do they?

The authors of the Special Report conclude that, for the purpose of continuing to sharpen the focus of feeding programs on nutritional effectiveness, either the existing mix of programs may need to be restructured or the criteria for the larger programs need to be made more strictly nutritional. Welfare issues are more likely now to be treated separately from nutrition issues than has previously been the case. In recent years, Congress has attempted to limit expenditures for the Food Stamp program, which operates in large part as an income maintenance tool, while continuing gradually to expand the school meals programs. Senator Jesse Helms and his staff have perhaps the most draconian proposals for cutting the Food Stamp program, but as a staff member expresses their goals, "We need to see what can be done to stop the massive growth and restore it to a nutrition program."³ Income maintenance issues will remain, but the conclusions of this report will prove particularly appropriate as nutritional issues come to the surface.

Among nutrition researchers such as those represented in this report, there is new emphasis on target effectiveness. Researchers are asking how programs can best be directed to serve the neediest under the constraint of a fixed or even reduced budget. They believe some aspects of the proposals to cut and limit food programs can be turned to this goal. For example, Senator Helms's emphasis has been on eliminating duplication of benefits to families participating in several programs at once. In a general way, the authors contend, this emphasis may be seen as constructive: "It automatically raises the issue of how funds might be used in other programs whenever there is an attempt to expand or to restrict one of the programs" (p. 183). The Helms proposal, however, is not target effective: reducing Food Stamp benefits for families that use school meal subsidies would deprive people who are often still well below even the altered eligibility levels, and thus could penalize the poorest of the poor.

Although expansion of the feeding programs may be hampered by budget restraints, there is likely to be a modest increase in the numbers of people served. When subsi-

dies for school meals are removed, for example, full-price school meals will become sufficiently expensive that an increased number of eligible families may decide to have their children apply for reduced-price and free meals, for which subsidies will remain. WIC grew very rapidly for several years, but is now likely to experience limited growth due to a freeze already in effect in federal allocations to states for starting up new centers. States may, however, be able to serve larger numbers of clients at already existing centers.

A sharpening of the nutritional effect of available programs may be brought about by increased focus on nutrition education. Each program currently has an educational component. The School Lunch and Breakfast program is accompanied by the Nutrition Education and Training program, which works with food service staffers, teachers, and the community. In some areas, the Food Stamp program has the Expanded Food and Nutrition Education Program (EFNEP), which assigns nutritionists to work on an individual and small-group basis with Food Stamp clients to inform and advise them about necessary nutrients, their availability in foods, and how to achieve a good diet on a very limited income. The WIC program involves an interview with each client during which a nutritionist provides information and suggestions based on the client's recorded dietary practices.

Studies of the effect of nutrition education on schoolchildren show that particularly among those under twelve, plate waste was reduced after educational programs had been presented. Food Stamp clients' diets have been found to be better than those of persons not receiving EFNEP instruction. Nevertheless, not enough research has been done in this area. If programs face budget constraints, nutrition education may be one of the most effective tools for improving clients' use of benefits and thus nutritional outcome.

Are the authors of the report too optimistic in their hope that the 1980s may see the emergence of a governmental food and nutrition policy? This goal, when couched in the language of human capital investment and an emphasis on target effectiveness, is compatible with a political climate stressing more restricted use of resources. It may be that a rationalization of the nation's child nutrition system will proceed along the lines the authors have sketched. ■

¹The report summarizes work originally conducted for the U.S. Senate Select Panel for the Promotion of Child Health. See the article by Barry Popkin, John Akin, Mildred Kaufman, and Maurice MacDonald in volume 4 of the Panel's series, *Better Health for Our Children: A National Strategy*, Public Health Service, Dept. of Health and Human Services, No. 017-002-143-7 (Washington, D.C.: U.S. GPO, 1981).

²E. T. Kennedy, S. Gershoff, R. Reed, and J. Austin, *Effect of WIC Supplemental Feeding on Birth Weight* (Washington, D.C.: Food and Nutrition Service, U.S. Dept. of Agriculture, 1979).

³Community Nutrition Institute, *Weekly Report*, Nov. 20, 1980, p. 2.